



**MILESTONE**  
H E L P I N G  
P A T I E N T S



# R-Tracker

Automatic Rack Scanner

*Operator Manual - MM180*



Thank you for choosing one of our systems and welcome to the growing club of users of Milestone laboratory instruments.

We feel confident that you will be fully satisfied with this new instrument in your laboratory.

We recommend that you read this operator manual carefully and that you always keep it within reach for quick and convenient reference.

For any clarification or request for support, please contact either our Representative in your country:

Or contact

Milestone Srl

Via Fatebenefratelli, 1/5

24010 Sorisole (BG) Italy

Tel. +39.035.412 8264

Fax +39.035.575498

Website [www.milestonemed.com](http://www.milestonemed.com)

E-mail [marketing@milestonemedsrl.com](mailto:marketing@milestonemedsrl.com)



**Please read this user manual carefully before using the instrument.**

## CONTENTS

CONTENTS .....	4
1. INTRODUCTION .....	6
1.1. Symbols used .....	6
1.2. Intended use .....	7
1.3. Safety .....	7
1.4. Warnings .....	8
1.4.1. Personal Data Security .....	8
1.5. Technical specifications .....	9
1.5.1. Monitor- Touch screen terminal .....	10
1.5.2. Computer .....	10
1.6. Antivirus and Firewall .....	11
1.7. Operating, transport and storage conditions .....	11
1.8. Device label .....	11
1.9. Compatible reagents .....	12
1.10. Compatible cassettes .....	12
1.11. Compatible cassettes codes .....	13
2. INSTALLATION OF THE INSTRUMENT .....	14
2.1. Space requirements .....	15
2.2. Unpacking and component checklist .....	17
2.3. Unit overview .....	21
2.4. Monitor installation .....	24
2.4.1. Installation of enlarged bracket .....	25
2.5. Electrical installation .....	26
2.5.1. Power supply .....	26
2.5.2. Code 60700 R-Tracker (without PC and monitor) connections .....	26
2.5.3. Code 60701 R-Tracker (with PC and monitor) connections .....	27
2.6. Final placement .....	28
2.6.1. Code 60700 R-Tracker (without PC and monitor) .....	28
2.6.2. Code 60701 R-Tracker (with PC and monitor) .....	30
2.7. Switching on the R-Tracker .....	31
3. USING R-Tracker .....	33
3.1. Use of 60700 R-Tracker (without PC and monitor) .....	33
3.1.1. Open the MileWATCH Server software .....	33
3.1.2. Create a new user .....	34
3.1.3. Installing R-Tracker Software .....	35
3.1.4. Open the R-Tracker software .....	41
3.2. Use of 60701 R-Tracker (with PC and monitor) .....	43
3.2.1. Open the MileWATCH Server software .....	43
3.2.2. Create a new user .....	43
3.2.3. Opening R-Tracker software .....	44
3.3. R-Tracker unit connection status .....	46
3.4. General settings .....	47
3.4.1. File .....	47
3.4.2. Tools .....	48
3.4.3. Open Reports .....	55
3.4.4. Counters .....	57
3.4.5. User (connected user management) .....	59
3.4.6. Information (Software version) .....	59
3.5. Performing a scan in R-Tracker .....	60
3.5.1. Loading cassettes into the split rack layers .....	60
3.5.2. Performing a rotation with batch management .....	60
3.5.3. Performing a scan without batch management .....	64
3.5.4. Rotation with cassette code not found .....	66
3.5.5. Rotation with identical cassette codes .....	70
3.6. Performing a comparison in R-Tracker .....	73
3.6.1. Performing a comparison with batch management .....	73
3.6.2. Performing a comparison without batch management .....	76
3.6.3. Comparison with cassette code not found .....	79

3.6.4.	Comparison with missing cassette code .....	83
3.6.5.	Comparison with extra cassette code .....	84
3.7.	R-Tracker shutdown .....	85
3.7.1.	60700 R-Tracker (without PC and monitor) shutdown .....	85
3.7.2.	60701 R-Tracker (with PC and monitor) shutdown .....	86
4.	OPTIONAL PARTS AND SPARE PARTS .....	87
4.1.	Main power cable 230V~ .....	87
4.2.	Main power cable 115V~ .....	87
4.3.	Power supply 24Vdc 2.5A .....	87
4.4.	Male-male USB cable .....	88
4.5.	Rack plate .....	88
4.6.	Small antiscratching spatula .....	88
4.7.	USB Bar code reader 2D .....	89
4.8.	Enlarged monitor support bracket .....	89
4.9.	SUPRASPOR .....	90
4.10.	Networking Web Managed Switch .....	91
4.10.1.	Description .....	92
4.10.2.	Technical specifications .....	93
4.10.3.	Installation instructions .....	94
5.	MAINTENANCE, CLEANING AND DECONTAMINATION .....	96
5.1.	R-Tracker cleaning precautions .....	96
5.2.	Operating procedure with SUPRASPOR .....	97
5.3.	Operating procedure with 70% alcohol-based reagent .....	100
5.4.	Preventive maintenance .....	102
5.4.1.	Customer support intervention/sending the unit to the manufacturer for repairs .....	102
6.	WASTE DISPOSAL .....	103
6.1.	Disposal of electrical and electronic devices .....	103
A.	ANNEX .....	104
A.1.	Web service .....	104
B.	ANNEX .....	105
B.1.	TROUBLESHOOTING .....	105



The manufacturer reserves the right to change and/or improve specifications without notice and without incurring any obligation.

## 1. INTRODUCTION

### 1.1. Symbols used



Please read this instruction carefully.



An instruction accompanied by this symbol has the value of a cautionary statement: **CAUTION**. Failure to comply with these instructions may harm the user or cause damage to the instrument.



Biohazard.



Laser light - Do not stand in front of the laser beams - **CLASS 2** laser device.



CE logo: this instrument complies with European Community directives.



WEEE European directive (2012/19/EC) symbol:  
do not release electric/electronic devices in the environment.



Specifies the manufacturer's serial number.



Manufacturer.



Fragile.



Hand crushing hazard



Moving parts.

## 1.2. Intended use

Tracking system for histological cassettes for Milestone racks, with consistency check between number of codes and number of cassettes.

R-Tracker is a system that must be operated by trained personnel, such as: laboratory technicians, biologists, nurses and pathologists.

The instrument is intended for laboratory use (indoor use) only.

The R-Tracker instrument must be operated only with the reagents listed in the chapter "Compatible reagents" 1.9.

R-Tracker must be used only as described in this manual.



**Any other use of the instrument should be deemed as misuse and voids the manufacturer's warranty.**

## 1.3. Safety



**It is important that normal standards of safety and good laboratory practices are applied.**

**The organization/institution owning the device has primary responsibility for safe use together with designated personnel who operate, service or repair it.**

## 1.4. Warnings



**DO NOT OPEN THE CHASSIS.** Failure to follow this instruction might lead to a reduction of device safety. If the equipment is not working properly, please contact the supplier or the manufacturer.



**Do not remove the instrument, the optional parts, the panels or the covers.** Only authorized and qualified service personnel may repair the instrument and access the instrument's internal components.



It is important that normal standards of safety and good laboratory practices are employed. Always use common sense and the best-known practice when operating the instrument.

The institution owning the instrument has primary responsibility for safe operation together with the designated personnel who operate, service or repair it.



To avoid damage to the instrument, use only the reagents listed in chapter 1.9. Failure to follow this instruction might lead to a reduction of device safety.

**Caution: some reactants that could come into contact with parts of the instrument are toxic and carcinogenic.**



The use of R-Tracker in the manner described in this operator manual keeps operators safe.

In case of accidental leakage of formalin, please follow local regulations that contain important information, such as the use of suitable personal protective equipment (PPE).



The Ethernet infrastructure to which the Milestone devices are connected must be managed so as to prevent any network problem which might jeopardize the integrity of the Milestone devices. Typical network problems to be avoided include: MAC flooding, broadcast storm, bridge loop or switching loop, denial-of-service attack, electrical discharges, etc. Milestone does not supply any protection against the network events described above. Appropriate management of the data network must be guaranteed to prevent these risks. Refer to chapter 4.10.

Any use for purposes other than those indicated is prohibited. Should the equipment be used for purposes other than those specified by the manufacturer, the warranty provided shall be void. The main plug is considered a disconnecting device. Disconnect the plugs from the main socket before assembling the system, before connecting the optional parts (if any) and before cleaning. The equipment must be connected to a main power socket which is accessible and visible by the operator. If the system is not working properly, please contact the local authorized and trained customer support that represents the manufacturer. All parts of the instrument and all optional parts must only be supplied by the manufacturer. This instrument was designed and tested in accordance with standard CISPR 11 Class A. In a household environment, it may cause radio interference; in such case, it will be necessary to adopt measures to mitigate the interference.

### 1.4.1. Personal Data Security

The device is not designed to manage the processing of the personal data of natural persons.

The personal data of natural persons must not be entered into the device while it is used.

The user operating the device must take appropriate measures to ensure that no personal data are entered.

All data referring to natural persons must therefore be entered by "pseudonymization".

"Pseudonymization" refers to a manner of processing personal data so that said data cannot be associated to a specific data subject unless additional information is used, provided that the said additional information is stored separately and is subject to technical and organizational measures to ensure that such personal data are not associated to an identified or identifiable natural person.

## 1.5. Technical specifications

### **CODE 60700 R-Tracker, without PC and monitor**

Power supply: 24VDC 60W  
equipped with 90-264V 50/60Hz 60W power supply

### **CODE 60701 R-Tracker, with PC and monitor**

Power supply: 24VDC 150W  
equipped with 90-264V~ 50/60Hz 150W power supply

Working Temperature: 15°C – 30°C (59°F – 86°F)  
Humidity (relative): From 20% to 80%, non-condensing  
Maximum altitude: 2000m  
Sound pressure: < 70dB

For indoor use only.

To use the R-Tracker (without PC and monitor CODE 60700) an external computer is required to connect the unit to. Install the R-Tracker software on the computer.



The R-Tracker software must be able to communicate with the MileWATCH Server software. Two options are possible:

1. The MileWATCH Server software is installed on the computer to which the R-Tracker is connected
2. The computer to which R-Tracker is connected is in the same network as the computer where the MileWATCH Server is installed.

#### **Minimum specifications of computer on which to install R-Tracker software:**

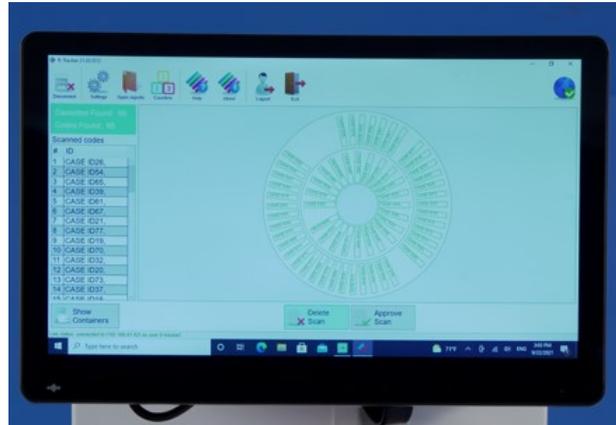
1. Operating system: Windows 7 SP1, Windows 10.
2. CPU: Dual core processor 4.0GHz
3. RAM: 4GB
4. 200Mb of free space on hard disk.
5. USB: 3x2.0 port
6. Gigaethernet connection.
7. Microsoft .NET framework 4.6.1 or later.
8. SQL Server Compact Edition 4.0
9. **Static IP address in the same subnet as the server and Milestone devices.**
10. A TCP port for the transfer of images.
11. A TCP port for the exchange of data with MileWATCH Server.
12. English (USA) language installed in the operating system

#### **Minimum specifications of computer on which to install MileWATCH Server software:**



Refer to the following operator manual for use of the MileWATCH pack:  
**MM130-MileWATCH**

### 1.5.1. Monitor- Touch screen terminal



Size: 12 inch widescreen  
Resolution: 1920 x 1080 pixel



**1280 x 720 resolution is suggested for an optimal use of the R-Tracker software.**

Touchscreen: multi-touch capacitive  
Brightness: 400 cd/m<sup>2</sup>,  
Speaker: built-in

Dedicated Milestone software with icon-based graphic interface.

The "POWER" button and the screen settings buttons are located on the back of the monitor.



### 1.5.2. Computer

Processor: 11th generation Intel® Core™ i3-1115G4 (6M Cache, up to 4.10 GHz)  
HDD: Solid state 128GB  
RAM: DDR4 8GB  
OS: WINDOWS 10 PRO Multilanguage  
Connectivity: Dual Intel® Ethernet Controller i225-LM  
Wireless: Intel® Wi-Fi 6 AX201, Integrated Bluetooth  
HDMI: Dual HDMI 2.0b w/HDMI CEC, Dual DP 1.4a via Type C  
Power Supply: 12-24 VDC 90W max  
USB: n.3 USB 3.2, n.3 USB 2.0, n.2 USB Type C

To proceed with installation, check that all the parts making up the R-Tracker (with PC and monitor) are present.

## 1.6. Antivirus and Firewall

Milestone recommends installing an antivirus software. As Milestone does not install antivirus software, the user can choose the preferred version according to their needs.

Pay attention when setting the Antivirus so that the data flux on the USB protocols and accesses to the hard disk are not limited.

Milestone suggests using a security system of your computer network via an adequate Firewall.



**If a Firewall is active in the network, its rules must allow the transmission of incoming and outgoing data as shown below.**

Setting up Firewall ports:

1. Access the PC's control panel.
2. Go to section "Windows Firewall" or "Windows Defender Firewall".
3. In the menu on the left, click "Advanced settings".
4. A screen will appear; from the menu on the left, select "Incoming connection rules".
5. From the menu on the right, select "New rule..."
6. Select: "Port" -> Click "Next" -> select "" and "Specific local ports" and, in the field to the side, enter the ports in the -> click "Next" -> Select "Allow connection" -> Select the desired profiles -> Click "Next" -> Give the rule a name and click "Finish"

## 1.7. Operating, transport and storage conditions

- Operating conditions    Operating temperature: 15°C (59°F) – 30°C (86°F)  
                                     From 20% to 80% non-condensing  
                                     Maximum altitude: 2000m

- Transport and storage conditions:  
                                     Temperature: –20°C (-4°F) up to +60°C (140°F)  
                                     Humidity: up to 80% (up to 50% at 40°C - 104°F) non-condensing

## 1.8. Device label



For the symbols, please see chapter 1.1.

## 1.9. Compatible reagents

When scanning the cassettes, these may be wet because they were previously kept immersed in a reagent. Below is the list of reagents in which the cassettes can be immersed when using R-Tracker.

### Fixatives

1. FineFIX
2. Formalin, buffered or unbuffered

### Embedding reagents

1. Wax

**DO NOT USE REAGENTS OTHER THAN THOSE LISTED ABOVE.**

Do not use zinc formalin, AFA (ethyl alcohol - formaldehyde - acetic acid and fixative with evident suspensions).



Do not use strong acids such as hydrochloric acid, nitric acid and sulphuric acid.

In case of doubts, please contact: [application@milestonemedsrl.com](mailto:application@milestonemedsrl.com).

Reagents other than those listed above may damage some components of the instrument.



If R-Tracker is used to scan cassettes wet with formalin, it is necessary to install a fume hood underneath to remove toxic fumes from this reagent.

## 1.10. Compatible cassettes

The cassettes that can be scanned with R-Tracker are standard cassettes:

Outer dimension: 40 x 28 x 7mm (including cassette cover)

Print surface inclination: 35° - 45°



**Black cassettes cannot be detected by the instrument.**

A good color difference between the print ink and the cassette is required. For example, red cassettes printed with grey ink are difficult to read.

## 1.11. Compatible cassettes codes

There is a code reader inside the R-Tracker instrument that detects the codes printed on the cassettes. The following codes can be read by R-Tracker:

- DMECC200 or DataMatrix



- QR



## 2. INSTALLATION OF THE INSTRUMENT

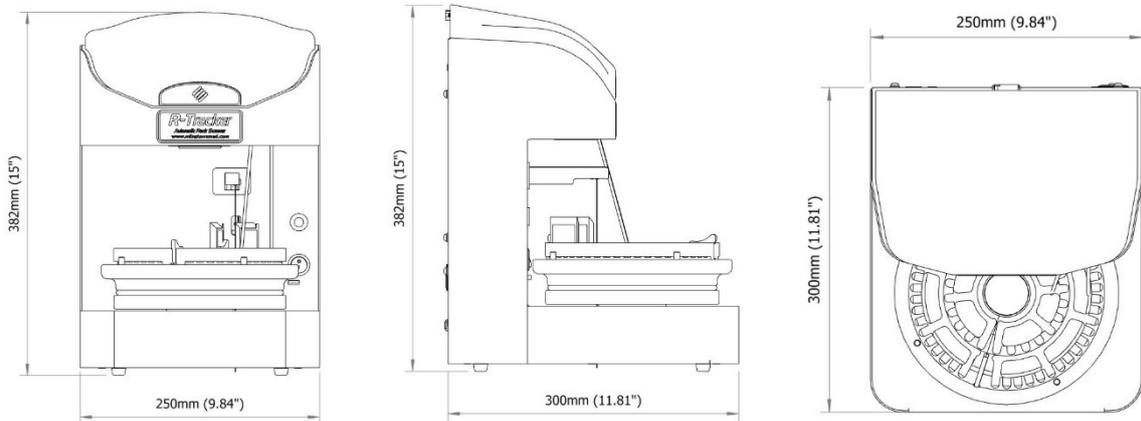


The R-Tracker weighs approximately 17kg (37.5lb) and at least 2 people are required to remove the unit from its box and place it on the bench.

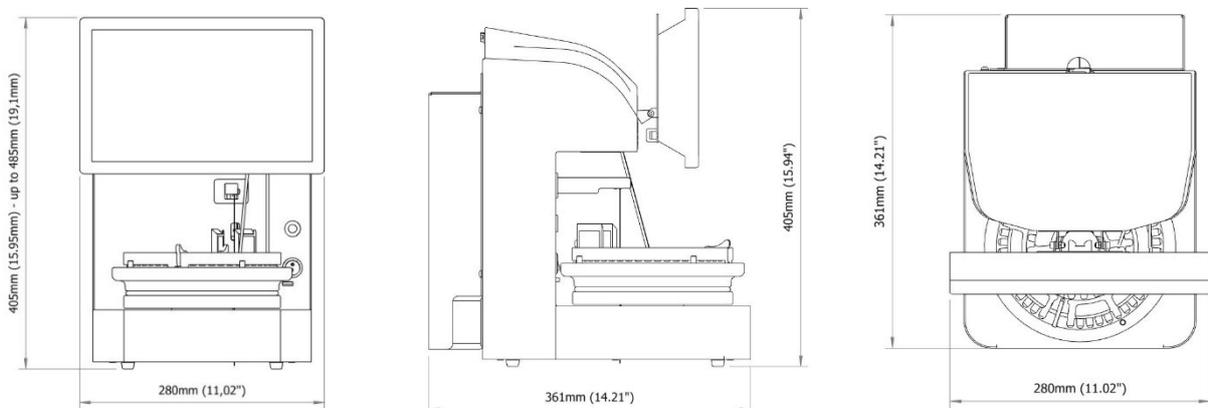
Before switching on the unit (when coming from a storage location), allow the instrument to reach operating environment conditions (at least half an hour).

R-Tracker is a precision instrument that requires the utmost care when it is unpacked and installed. Move R-Tracker to its final location. Make sure that the support surface is level and is made of non-flammable material. The following pictures show the dimensions of R-Tracker and the space required:

CODE	WIDTH	HEIGHT	DEPTH
<b>60700 R-Tracker (without PC and monitor)</b>	250mm (10")	382mm (15")	300mm (12")



CODE	WIDTH	HEIGHT	DEPTH
<b>60701 R-Tracker (with PC and monitor)</b>	280mm (11")	from 405mm (16") to 485mm (19")	361mm (14")



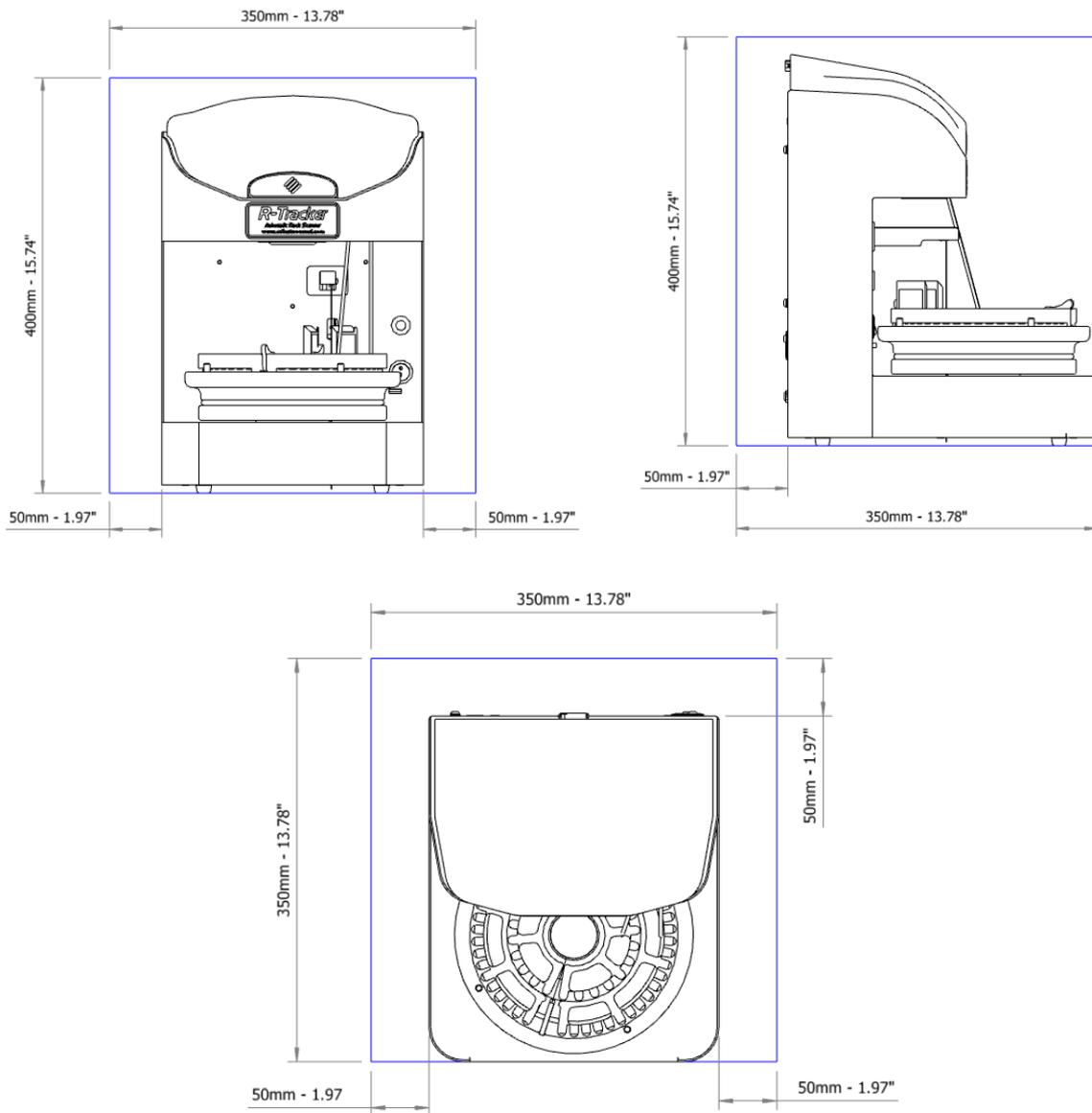
## 2.1. Space requirements

R-Tracker is delivered in a **wooden crate** with the **following dimensions** and total weight of 28kg (61.7lb):

Width: 420mm (17")	Height: 680mm (27")	Depth: 650mm (26")
--------------------	---------------------	--------------------

The dimensions required to position the unit are the following:

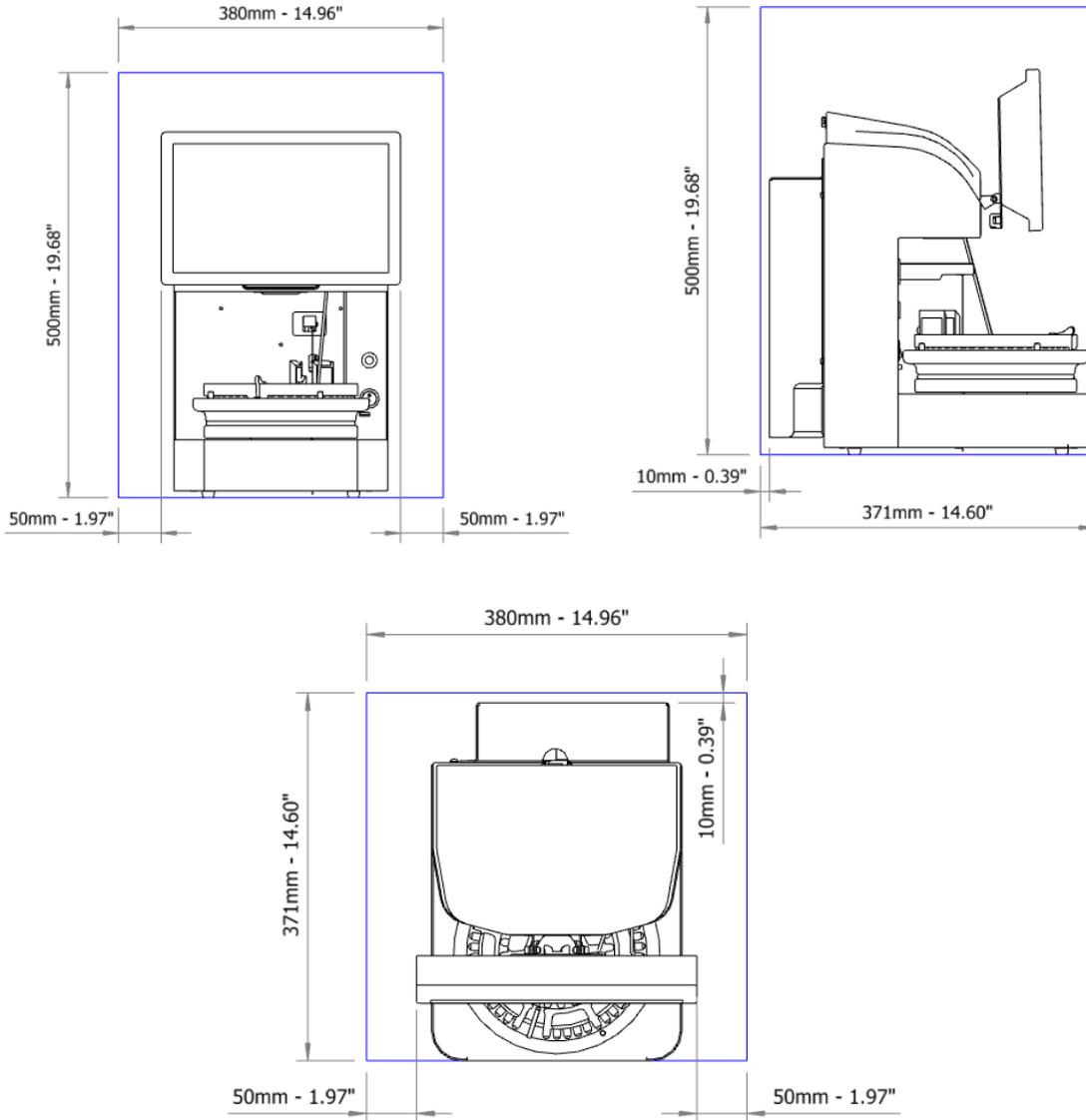
CODE	WIDTH	HEIGHT	DEPTH
<b>60700 R-Tracker (without PC and monitor)</b>	350mm (14")	400mm (16")	350mm (14")



### R-Tracker Weight:

R-Tracker (without PC and monitor): 14.6kg – 32.2lb

CODE	WIDTH	HEIGHT	DEPTH
<b>60701 R-Tracker (with PC and monitor)</b>	380mm (15")	500mm (20")	371mm (15")



R-Tracker Weight:

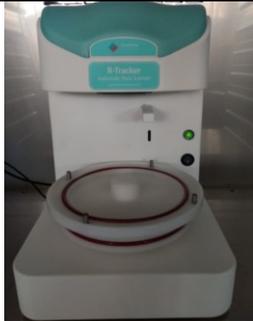
R-Tracker (with PC and monitor): 16.8kg – 37lb

## 2.2. Unpacking and component checklist

When unpacking the instrument, check that all parts match the packing list included in the shipment. The utmost care must be taken when unpacking the instrument to prevent any scratching or damage to the external coating.

The package includes the following items:

### Code 60700 R-Tracker (without PC and monitor)

DESCRIPTION	Q. TY	IMAGE
R-Tracker (without PC and monitor) 100-240V 50/60Hz	1	
Rack plate for fixative (With red O-Ring) Code 60763	1	
Rack plate for wax (With black O-Ring) Code 60764	1	
Small antiscratching spatula Width: 37mm Code 60765	1	
Power supply 24Vdc 2.5A (Code 67916)	1	
Main power cable 230V~ (Code 50391)	1	
Main power cable 115V~ (Code 50036)	1	

DESCRIPTION	Q. TY	IMAGE
Male-male USB cable (Code 330088/D)	1	
MileWATCH pack (Code 101920/1) containing: -MileWATCH Server Software. -MileWATCH Viewer Software. -MileWATCH Batch Software. -MileWATCH Search Software. -MM130-MileWATCH in electronic format. -MM186-MileLicenser in electronic format.	1	
USB key with: -R-Tracker Software. -MM180-R-Tracker Operator Manual in electronic format -SUPRASPOR technical data sheet -SUPRASPOR safety data sheet	1	

**Code 60701 R-Tracker (with PC and monitor)**

DESCRIPTION	Q. TY	IMAGE
R-Tracker (with PC and monitor) 100-240V~ 50/60Hz R-Tracker Software installed MileWATCH software pack with 15-year license for 5 devices (Code 101950/1) installed	1	
Rack plate for fixative (With red O-Ring) Code 60763	1	
Rack plate for wax (With black O-Ring) Code 60764	1	
Small antiscratching spatula (Code 60765) Width: 37mm	1	
Power supply 24Vdc 150W (Code 60785)	1	
Main power cable 230V~ (Code 50391)	1	
Main power cable 115V~ (Code 50036)	1	
Enlarged bracket for monitor (Code 60782V)	1	
Screws and washers kit to fasten monitor	1	

DESCRIPTION	Q. TY	IMAGE
7mm open-end spanner (Code 60009/3)	1	
3mm Allen wrench (Code 64569)	1	
Capacitive stylus to work with the touch-screen terminal	1	
MileWATCH pack (Code 101920/1) containing: -MileWATCH Server Software. -MileWATCH Viewer Software. -MileWATCH Batch Software. -MileWATCH Search Software. -MM130-MileWATCH in electronic format. -MM186- MileLicenser in electronic format.	1	
USB key with: -R-Tracker Software. -MM180-R-Tracker Operator Manual in electronic format.	1	

For the optional parts refer to chapter 4.



The images shown are for illustrative purposes only.

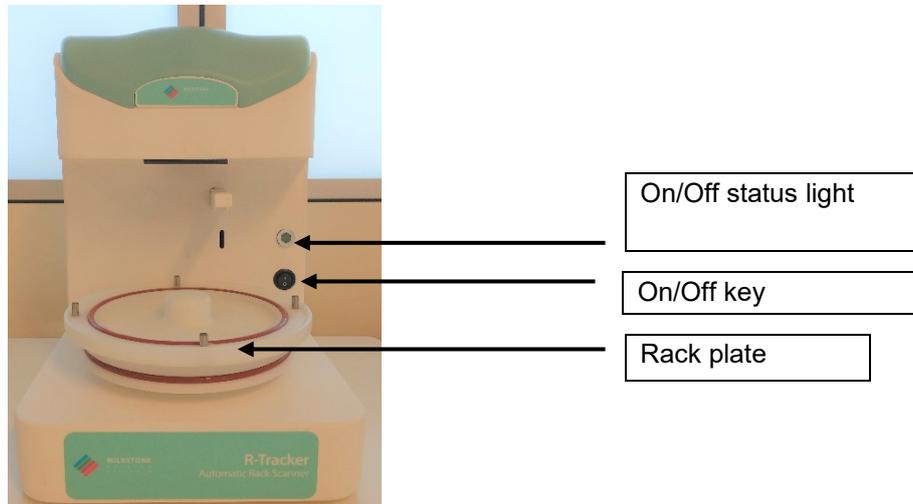
## 2.3. Unit overview



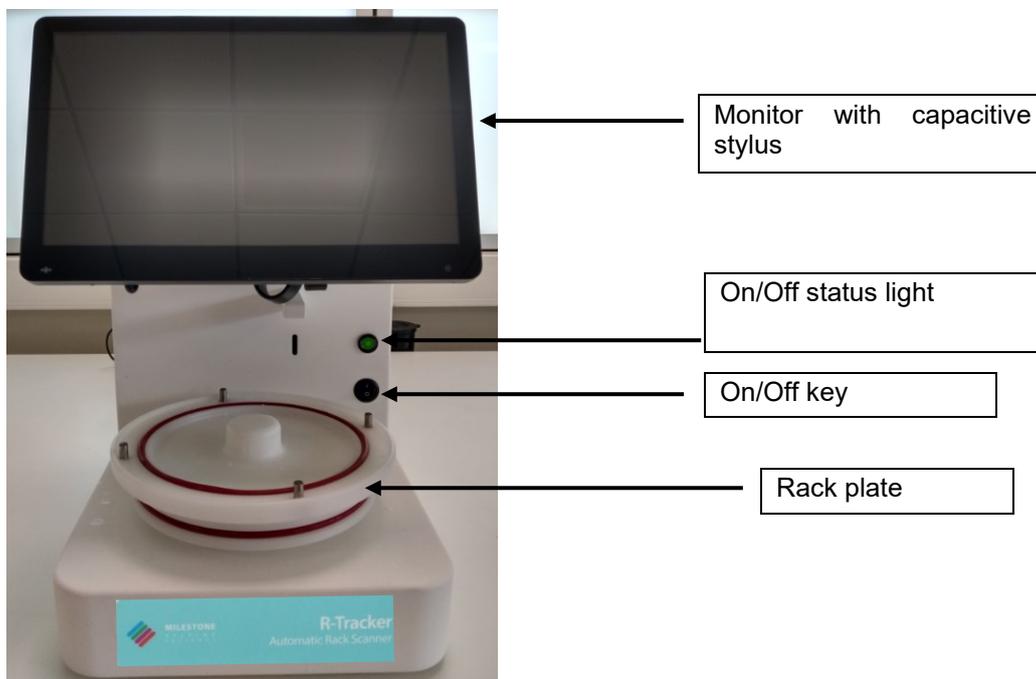
Before starting to use the unit, put on protective gloves

Front view:

**Code 60700 R-Tracker (without PC and monitor)**

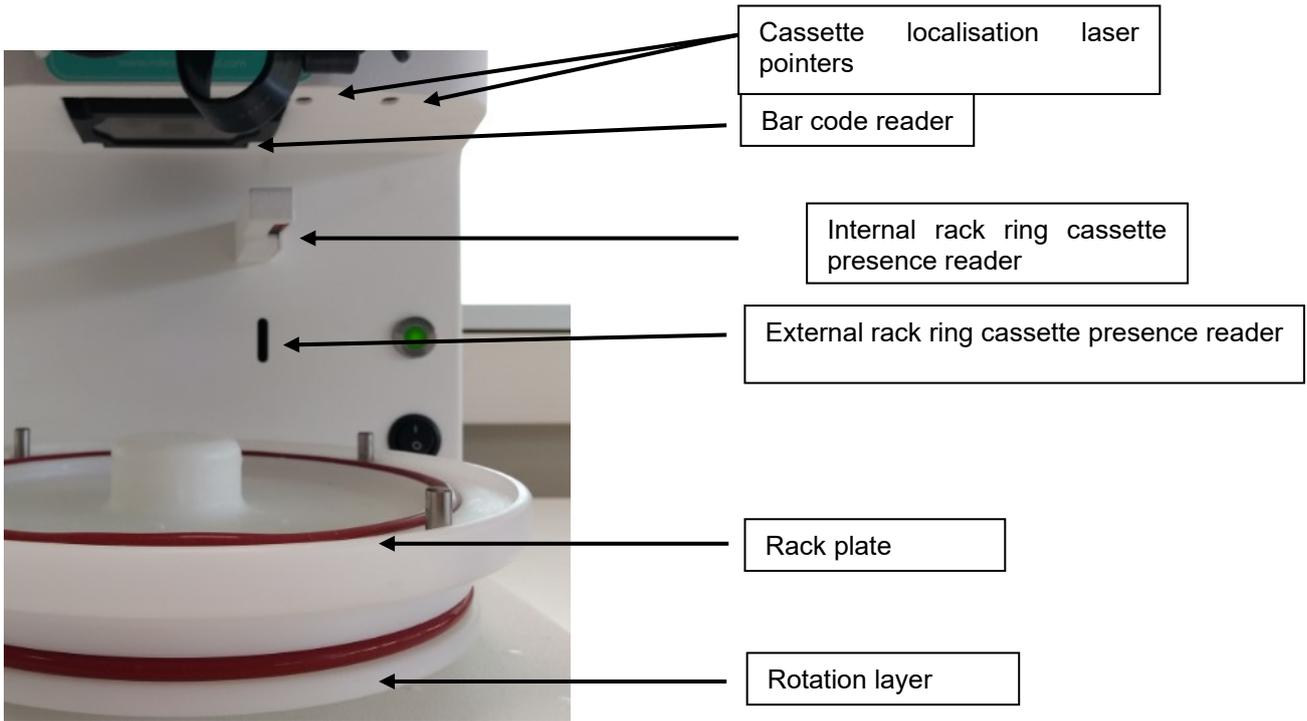


**Code 60701 R-Tracker (with PC and monitor)**



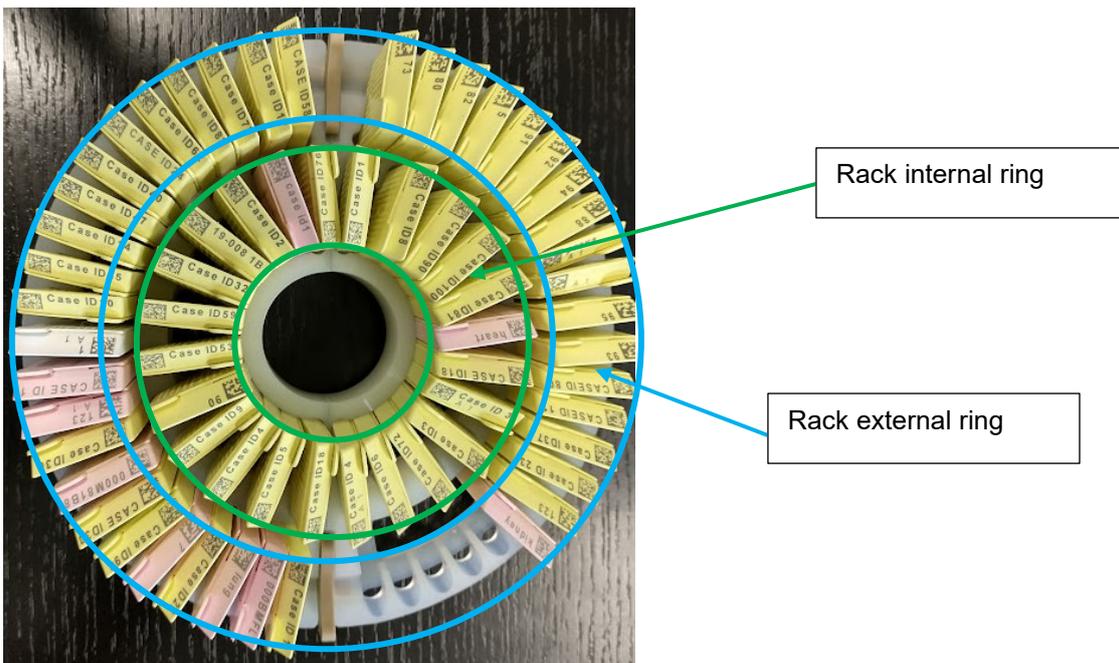
The image shows the front part of R-Tracker. The R-Tracker instrument on/off key with its control light is on the right side.

The rack plate to correctly position the rack for reading the cassettes is located in front.



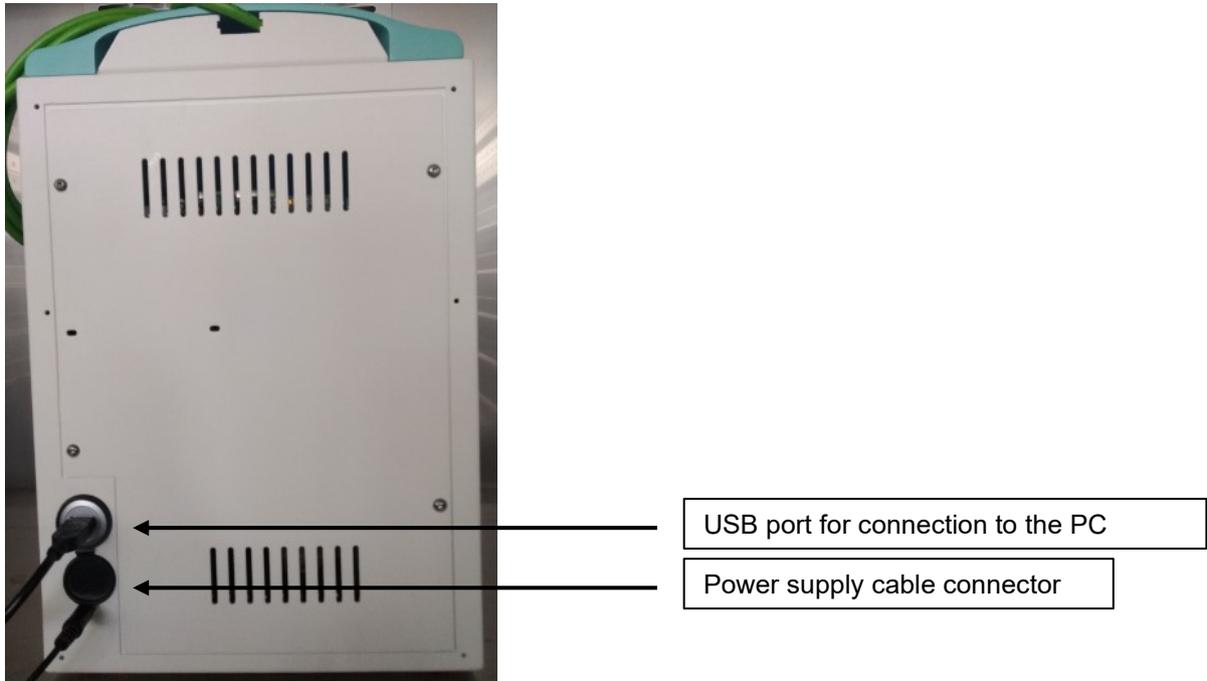
- Laser pointers: the lasers indicate the position of a certain cassette in the internal or external ring of the rack
- Code reader: reads the code of each individual cassette, whether in the internal or external ring of the rack
- Cassette presence readers: detect and count the cassettes in the internal ring and in the external ring of the rack.
- Rotation layer: layer on which the rack plate is inserted that allows to rotate the rack during scanning

The following is an example of a rack with cassettes:



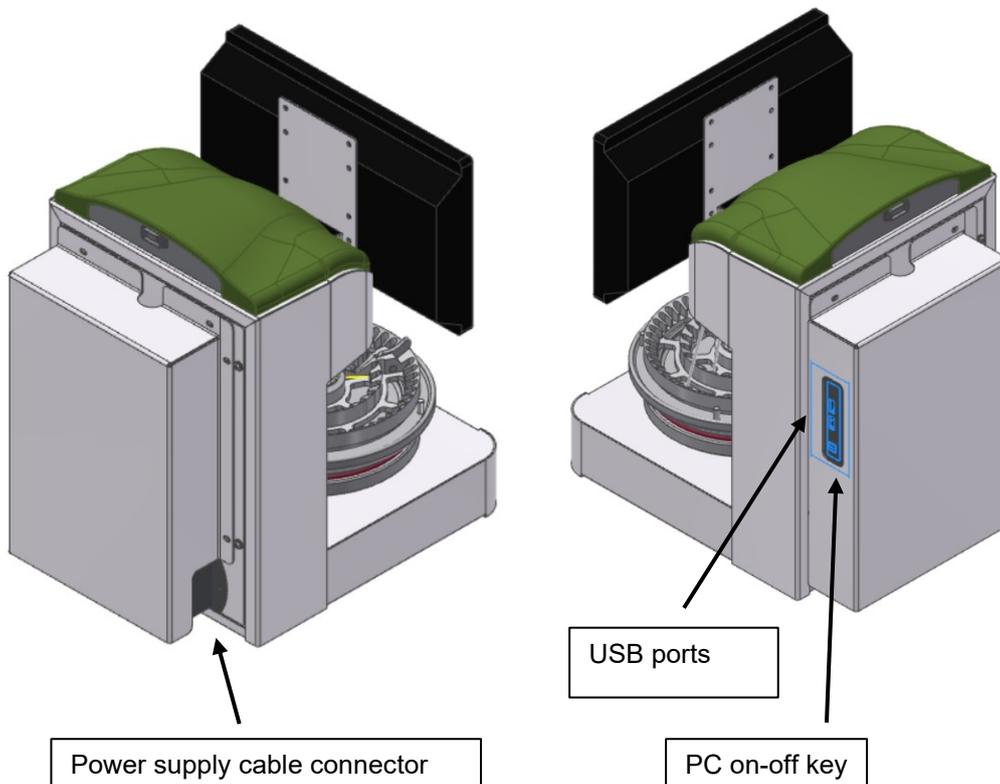
Rear view:

**Code 60700 R-Tracker (without PC and monitor)**



The power supply cable connector and the USB port for connecting the unit to the computer on which the R-Tracker software and the MileWATCH software pack will be installed are located on the back bottom-left of the unit.

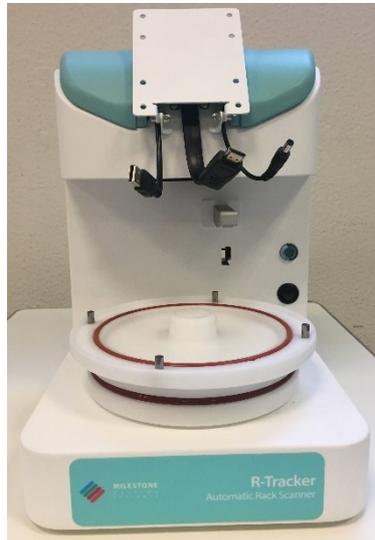
**Code 60701 R-Tracker (with PC and monitor)**



In the R-Tracker (with PC and monitor) version, the PC is placed inside the rear protection.

## 2.4. Monitor installation

The 60701 R-Tracker (with PC and monitor) unit is shipped with monitor disconnected.



Follow the instructions below to connect the monitor:

<p>Connect the 3 cables, located below the bracket, to the monitor.</p> <p> <b>Before starting to use the unit put on protective gloves</b></p>	
<p>The cables connected to the monitor are displayed from left to right:</p> <ol style="list-style-type: none"> <li>1. Monitor power cable</li> <li>2. HDMI video cable</li> <li>3. USB cable between PC and monitor</li> </ol>	
<p>Use two washers for each screw</p>	

<p>Fasten the first screw with washers in the highest hole and then continue clockwise</p>			
<p>Tighten the screws with the specific spanner</p>			

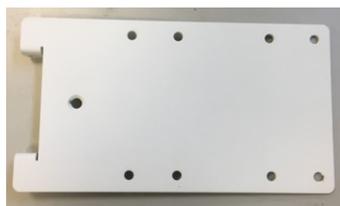
This type of installation reaches a height of 435mm



If necessary, lower the monitor to a height of 405mm, moving the screws to the lower holes.

#### 2.4.1. Installation of enlarged bracket

The 60701 R-Tracker (with PC and monitor) is supplied with an additional monitor support bracket if you need to raise the position of the monitor.



Disassemble the bracket using the supplied Allen wrench and mount the new bracket at the required height.

## 2.5. Electrical installation

### 2.5.1. Power supply

The power supply line needs to be earthed (Class I device).  
Power supply line protection: residual current circuit breaker (RCCB) curve C, 10A, residual current: 30mA.

The power supply line must be earthed (yellow/green, green or bare wire).  
Do not use the blue/white wire (neutral of power supply line). The power supply neutral must be earthed.



**Before connecting the plug to the laboratory's socket check that the power supply voltage of the unit matches the power supply line of the laboratory. Damage occurs if the power supply is wrong.**

### 2.5.2. Code 60700 R-Tracker (without PC and monitor) connections

The following connections are located on the back panel of R-Tracker (Code 60700):

Description:

	<p>USB port for PC connection with protective cover. Lift up to use the USB port.</p>
	<p>Power supply connector</p>

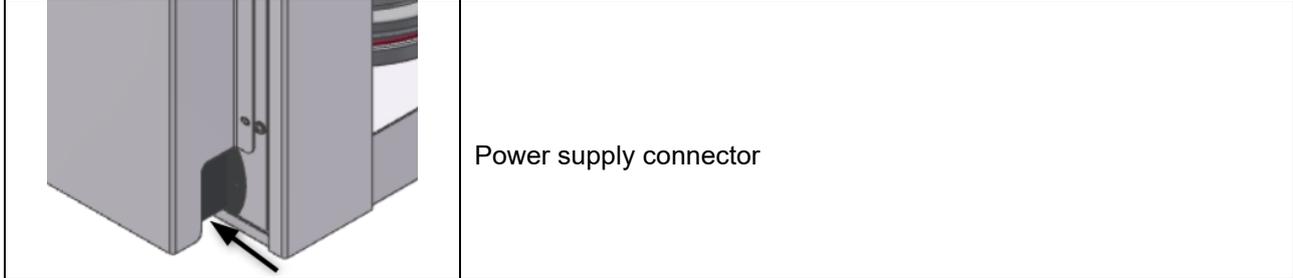


**Also see the label on the back of the unit which provides some important information. Always provide the Serial Number (SN) of the unit to Customer Support.**

### 2.5.3. Code 60701 R-Tracker (with PC and monitor) connections

The following connections are located on the back panel of R-Tracker (Code 60701):

Description:



**Also see the label on the back of the unit which provides some important information. Always provide the Serial Number (SN) of the unit to Customer Support.**

## 2.6. Final placement

### 2.6.1. Code 60700 R-Tracker (without PC and monitor)

The R-Tracker unit can now be moved to its final position.



**If the cassettes to be scanned are immersed in formalin, R-Tracker must be installed under the hood or in a ventilated area.**

Connect:

- The power supply cable with transformer to the connector located on the back of the instrument (see figure below),



- the transformer to the main power cable



- and the plug of the main power supply cable to the laboratory's electric socket.

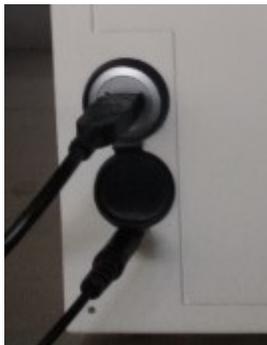


Now you may connect the R-Tracker instrument to the computer in which the R-Tracker software and the MileWATCH software pack will be installed.

- Open the cover of the USB port



- Insert the USB cable supplied with the instrument



- Connect the other end of the USB cable to an available port on the computer



**Connect the USB cable to a USB port (preferably type 3.0) on the computer. Do not use USB ports on external monitors or docking stations.**

Now you can turn the instrument on as explained in chapter 2.7.

### 2.6.2. Code 60701 R-Tracker (with PC and monitor)

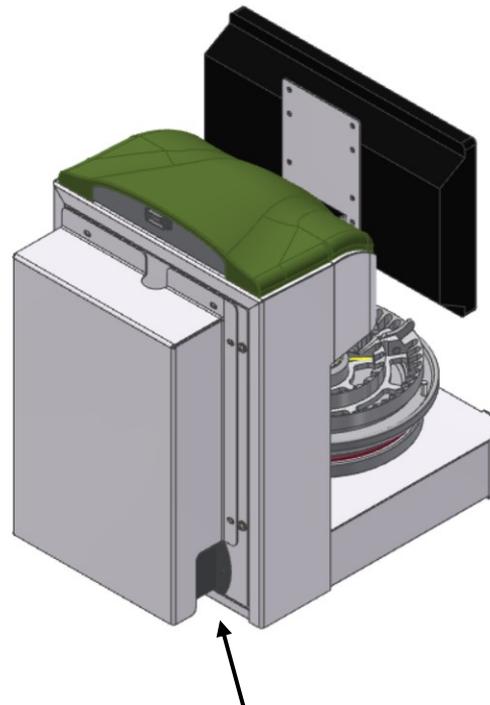
The R-Tracker unit can now be moved to its final position.



**If the cassettes to be scanned are immersed in formalin, R-Tracker must be installed under the hood or in a ventilated area.**

Connect:

- The power supply cable with transformer to the connector located on the back of the instrument (see figure below),



Power supply cable connector

- the transformer to the main power cable



- and the plug of the main power supply cable to the laboratory's electric socket.



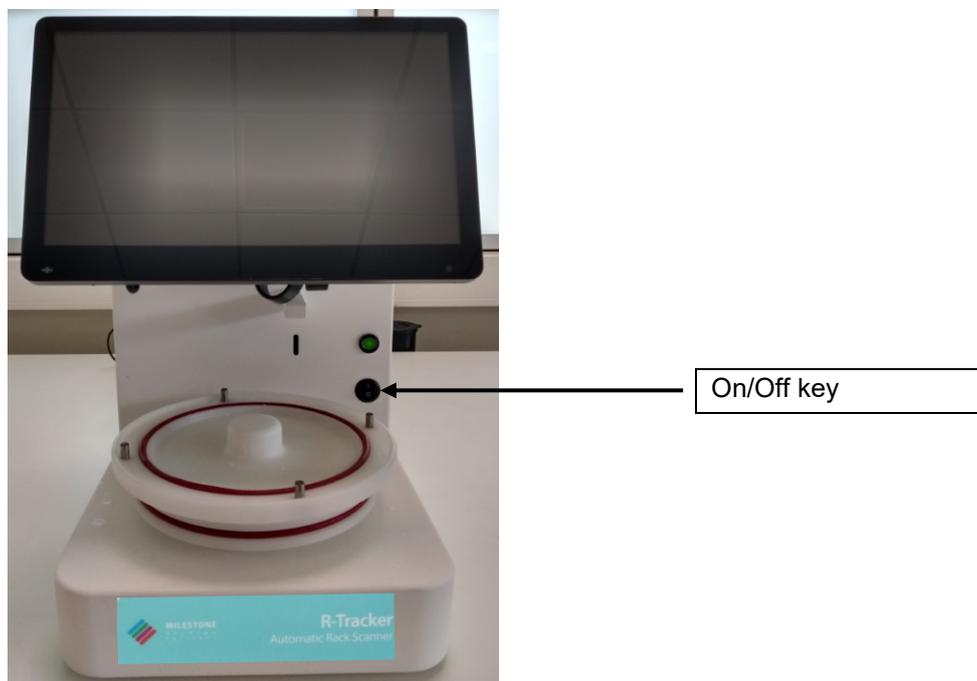
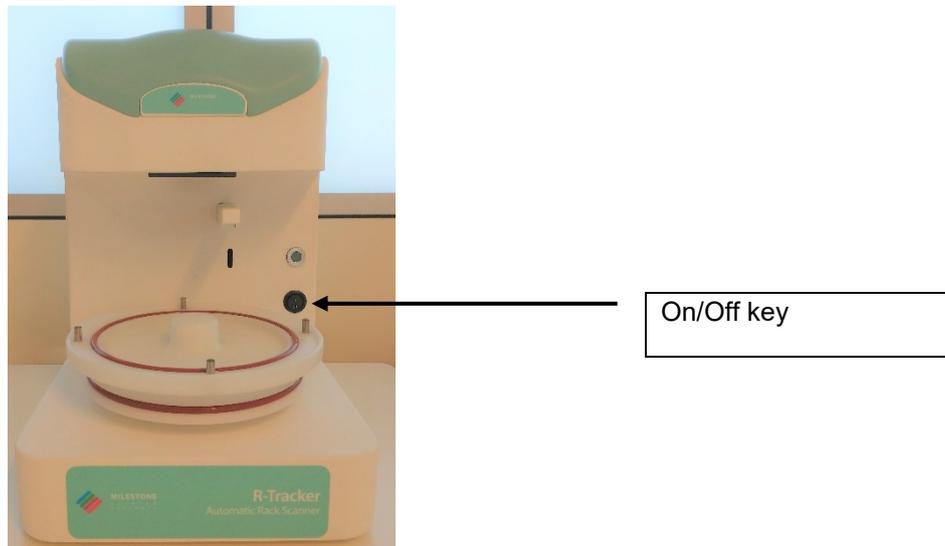
Now you can turn the instrument on as explained in the following chapter.

## 2.7. Switching on the R-Tracker

The button for switching the instrument on and off is located on the front of the instrument, on the right.

Before turning on the instrument, make sure you have followed all the instructions above.

It is now possible to switch the instrument on by pressing the appropriate button, the power supply light turns on green.



Using R-Tracker requires the specific software and the MileWATCH software pack.



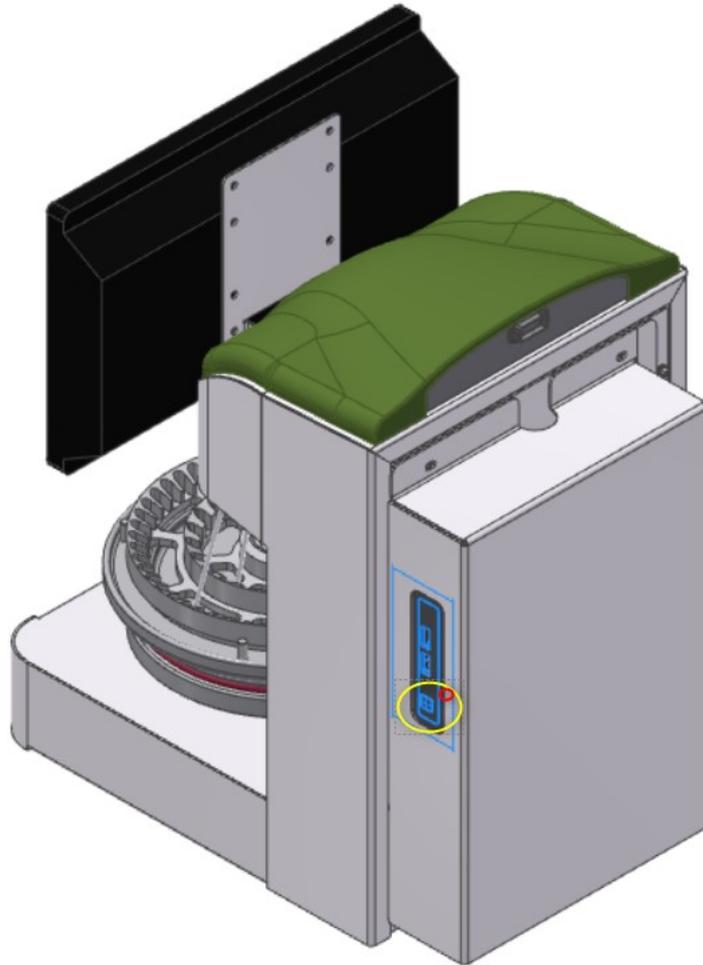
**Code 60700 R-Tracker (without PC and monitor):** the R-Tracker software and the MileWATCH software pack must be installed on the computer connected to the unit as explained in Chapter 3.1.

**Code 60701 R-Tracker (with PC and monitor):** the R-Tracker software and the MileWATCH software pack are already installed on the PC connected to the monitor.

For the 60701 R-Tracker (with PC and monitor) version, turn on the screen: the on/off button is located at the bottom on the back of the screen as shown in the following image:



Then turn on the PC using the black On/Off button on the side of the PC, as shown in the following image:



### 3. USING R-Tracker

The R-Tracker instrument can only be used with the specific software called R-Tracker along with MileWATCH Server software.

R-Tracker software needs MileWATCH Server software to work.

MileWATCH Server is necessary because it acts as a database where all of the cassette scanning information is saved, to create the login credentials to R-Tracker software and to allow each cassette to be tracked (function that can be enabled in the Milestone processor).



**For further information on MileWATCH functions, see the MM130-MileWATCH operator manual**

In the 60700 R-Tracker version (without PC and monitor), it is necessary to install the R-Tracker software on the computer that will be connected to the R-Tracker instrument (see chapter 3.1.3). You must also install MileWATCH Server on the same computer or on a computer or server active in the same network.

**To install MileWATCH Server, refer to the MM130-MileWATCH operator manual.**



**MileWATCH Server software needs a license to work. The local dealer must refer to the MileLICENSER document - How to download and install the MileWATCH License uploaded in the USB key.**

In the Code 60701 R-Tracker (with PC and monitor) version, the R-Tracker software and the MileWATCH software are already installed. MileWATCH Server software includes a 15-year license for 5 devices (Code 101950/1).

#### 3.1. Use of 60700 R-Tracker (without PC and monitor)

The following procedure applies to the 60700 R-Tracker instrument (without PC and monitor). After having installed MileWATCH Server in the computer connected to R-Tracker or in a computer on the same network, proceed as follows

##### 3.1.1. Open the MileWATCH Server software

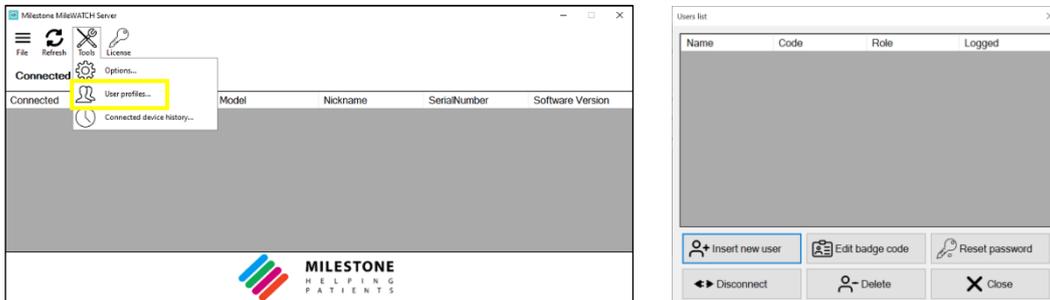
Click the MileWATCH Server icon on the computer connected to R-Tracker or in a computer on the same network:



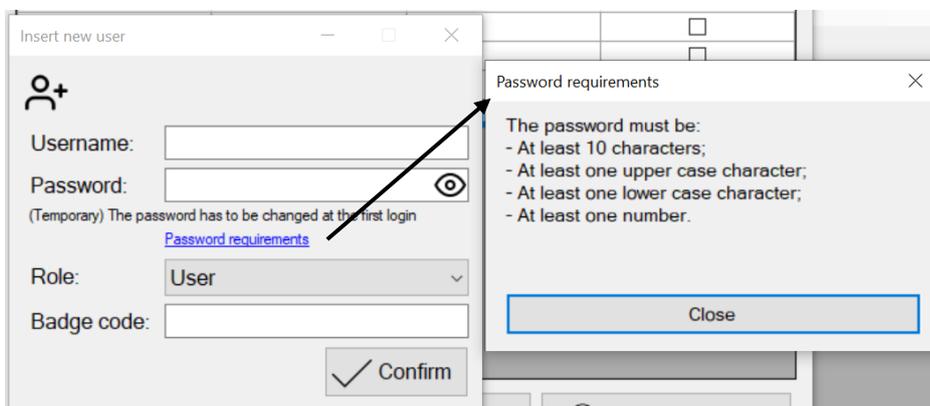
### 3.1.2. Create a new user

One or more users must be created to access the R-Tracker software.

- a. Select **Tools\User profiles** (yellow box) and select **Insert new user**.



- b. Enter **User name, Password and Role** and press **Confirm**. In the field **Role** always enter **User**. The Administrator role will be used for future applications.



**There is no limit to the number and type of characters that can be entered in the User name field.**

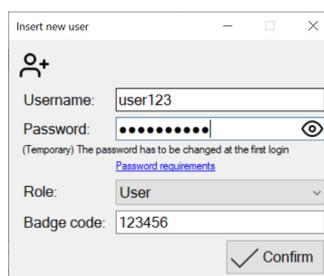
**The password field must contain:**



- **At least 10 characters**
- **At least one upper case character**
- **At least one lower case character**
- **At least one number**

**There is no limit to the number of users that can be entered.**

It is also possible to enter the badge number for each user. The badge number can be used to access the R-Tracker software without entering Username and Password.



### 3.1.3. Installing R-Tracker Software



**Before installing the software, make sure you have user credentials with administrator privileges.**

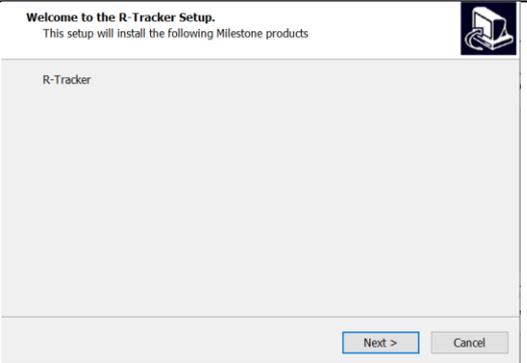
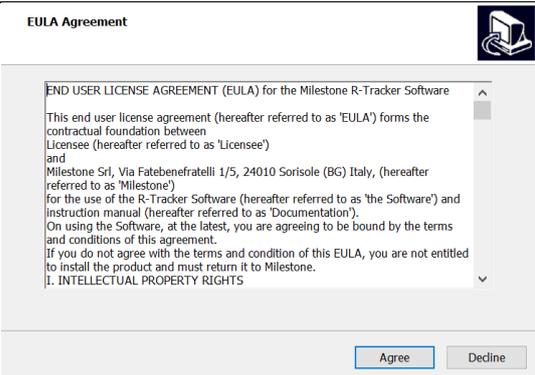
The software is provided by Milestone.

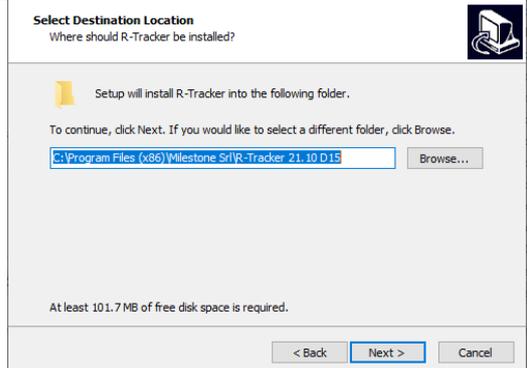
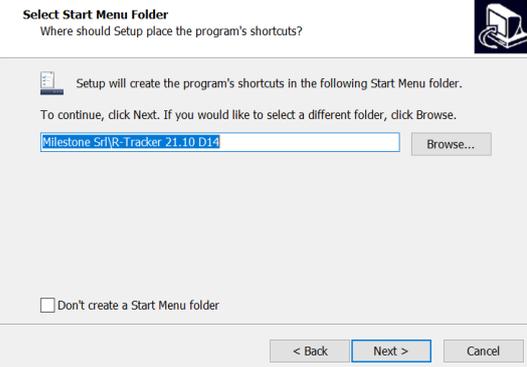
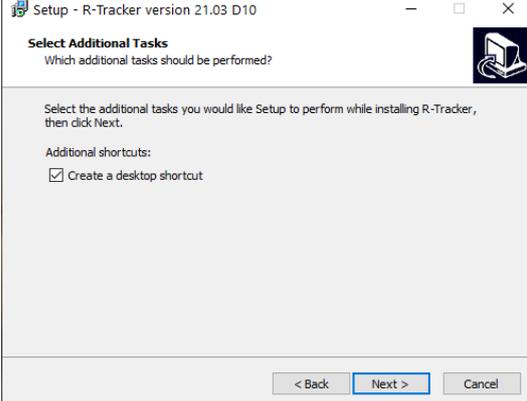
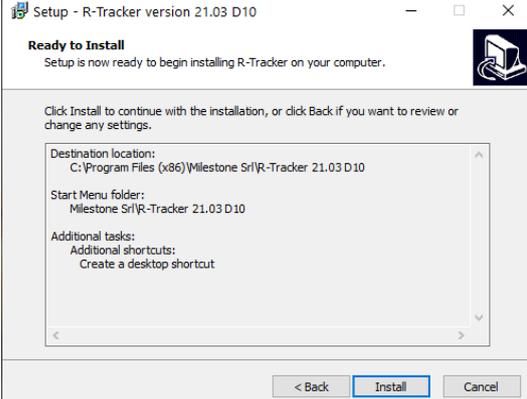
1. Insert the installation USB pen drive in the computer on which you want to install R-Tracker.

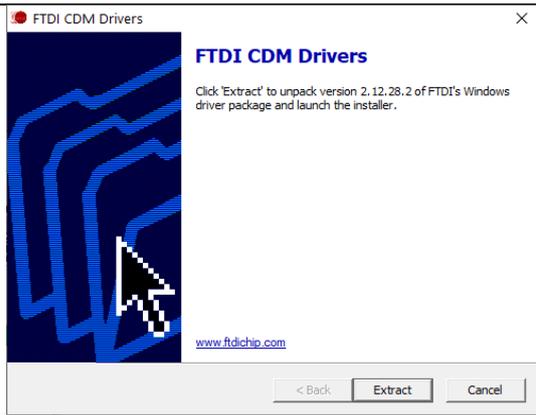
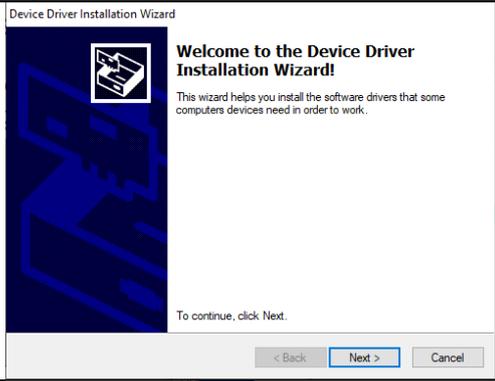
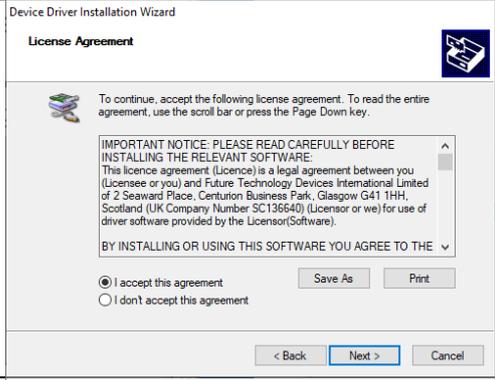
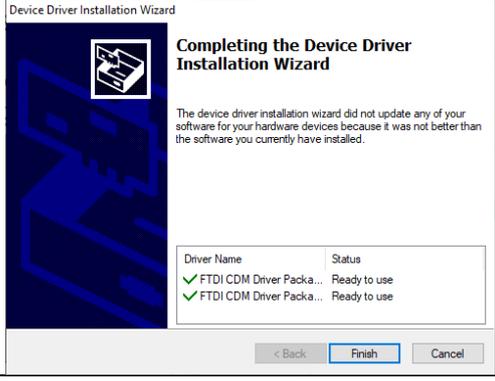


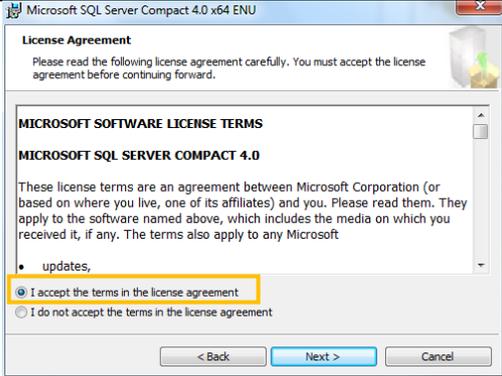
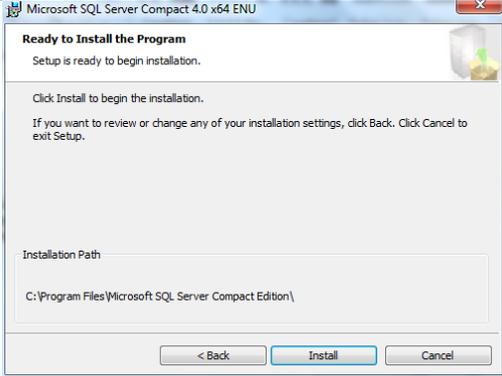
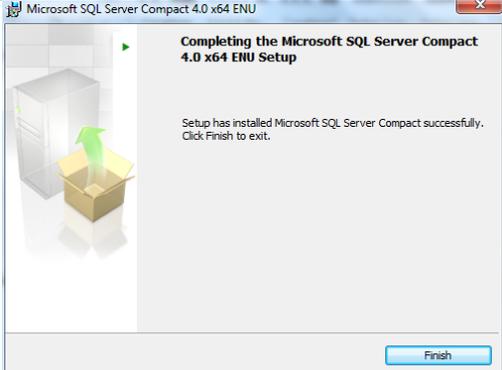
2. Launch **Setup R-Tracker xx.xx.exe** from the installation USB pen drive as shown in the figure below.

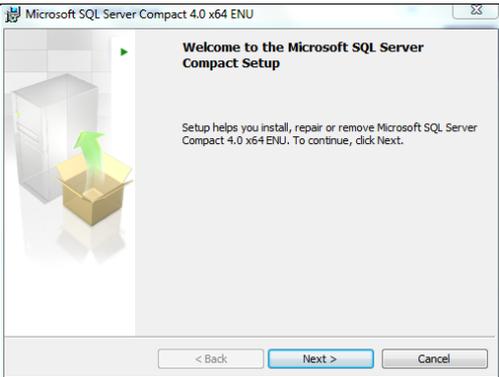
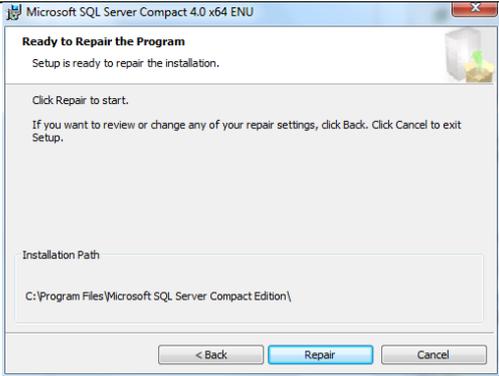
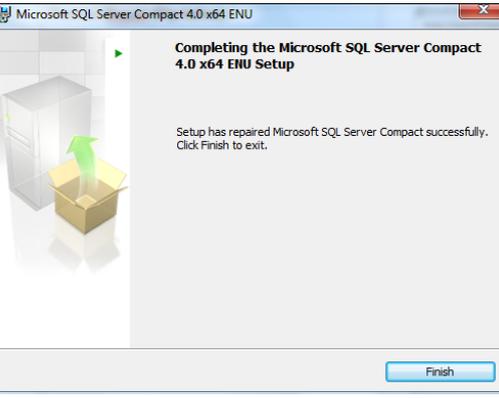
 Setup R-Tracker 21.03.exe

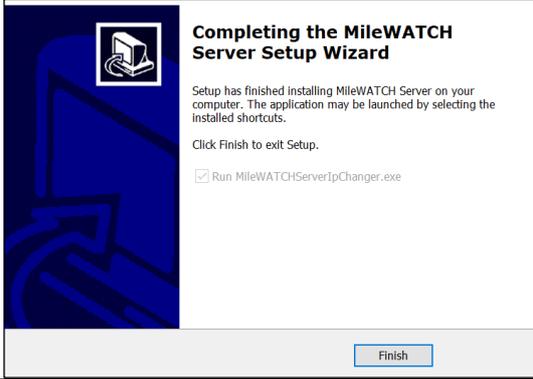
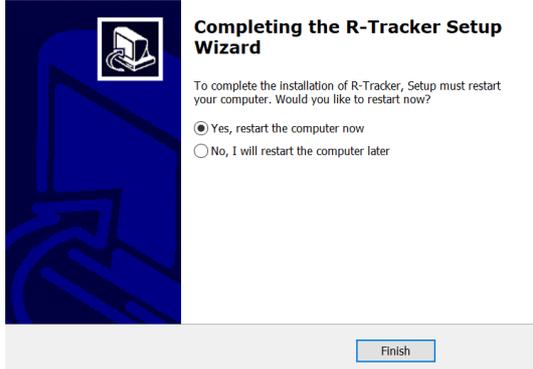
<p>Click <b>Next</b> on the screen which appears.</p>	
<p>Select <b>Agree</b></p>	

<p>The following screen will appear. By default, the R-Tracker program will be installed in the path <b>“C:\Program Files (x86)\Milestone srl\R-Tracker”</b>. If you want to change the save path, click <b>Browse</b> and select the save folder.</p> <p>The required free disk space (101.7MB) is indicated at the bottom of the screen (<b>At least 101.7 MB of free disk space is required</b>).</p> <p>Press <b>Next</b>.</p>	
<p>If you do not want to view the <b>“Milestone srl\R-Tracker”</b> folder in the windows start menu, select <b>Don't create a Start Menu folder</b>.</p> <p>Press <b>Next</b>.</p>	
<p>If you don't want to create a desktop icon, disable <b>Create a desktop shortcut</b>. Press <b>Next</b>.</p>	
<p>Select <b>Install</b> to install the software.</p>	

<p>Press <b>Extract</b> to retrieve the necessary drivers and install them.</p>	
<p>Press <b>Next</b>.</p>	
<p>Accept the license contract and press <b>Next</b>.</p>	
<p>Press <b>Finish</b>.</p>	
<p>Installation of <b>Microsoft SQL Server Compact</b> is required.</p>	
<p>a) If it is not present on the computer, proceed as follows:</p>	

<p>Press <b>Next</b>.</p>	
<p>Select <b>I accept the terms in the license agreement</b> and press <b>Next</b>.</p>	
<p>Press <b>Install</b>.</p>	
<p>Press <b>Finish</b>.</p>	
<p>b) If it is already on the computer, the following screens are displayed:</p>	

<p>Press <b>Next</b>.</p>	
<p>Select <b>Repair</b> and then press <b>Next</b>.</p>	
<p>Press <b>Repair</b>.</p>	
<p>Press <b>Finish</b>.</p>	

<p>At the end, press <b>Finish</b></p>	
<p>Once completed, leave <b>“Yes, restart the computer now”</b> selected and click <b>Finish</b> The computer will be rebooted.</p> <p> <b>It is mandatory to reboot the computer for correct operation.</b></p>	

### 3.1.4. Open the R-Tracker software

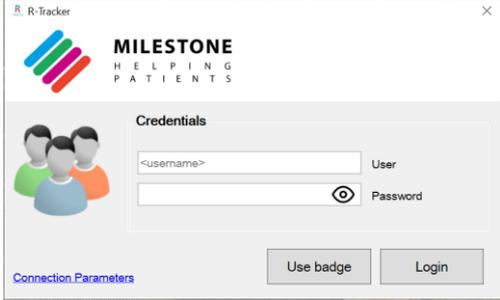
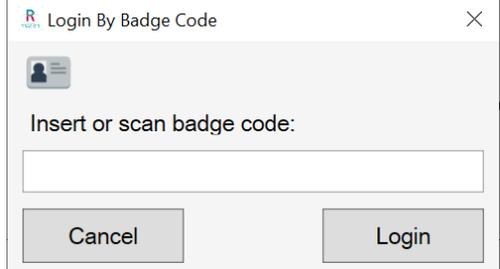
After having rebooted the computer, open the R-Tracker software by clicking the following icon:



The following screens appear when you open the R-Tracker software. Proceed according to the following instructions:

<p>Click <b>Connection parameters</b> (yellow box in the figure to the side).</p>	
<p>The screen displays the following fields:</p> <ul style="list-style-type: none"> <li>➤ <b>Server IP:</b> IP address of the computer on which MileWATCH Server is installed.</li> <li>➤ <b>Server Net.Tcp and Http port:</b> communication ports that have been inserted at the end of the installation of MileWATCH Server</li> </ul> <p>Click <b>Credentials</b> (yellow box in the figure to the side).</p>	
<p>Enter <b>username</b> and <b>password</b></p>	
<p>Upon first access, you will be requested to set a new password which only the user knows. Click <b>Apply</b></p> <p><b>The password field must contain:</b></p> <ul style="list-style-type: none"> <li>• At least 10 characters</li> <li>• At least one upper case character</li> <li>• At least one lower case character</li> <li>• At least one number</li> </ul>	

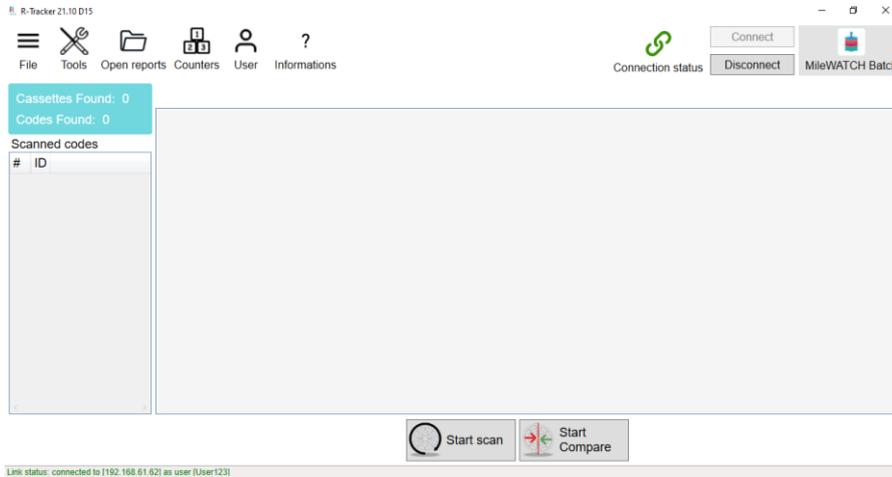


<p>It is possible to login by entering just the badge by clicking <b>Use badge</b></p>	
<p>Enter the badge code in the window that appears and click <b>Login</b></p>	



If you lose the password, contact the MileWATCH Server administrator to restore the user.

The R-Tracker software opens automatically.

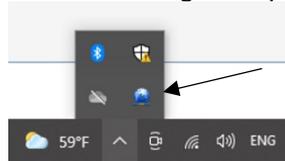


### 3.2. Use of 60701 R-Tracker (with PC and monitor)

The following procedure applies to the 60701 R-Tracker (with PC and monitor) instrument. After having run the switch-on procedure of the instrument, monitor and PC (as explained in Chapter 2.7) follow the instructions below.

#### 3.2.1. Open the MileWATCH Server software

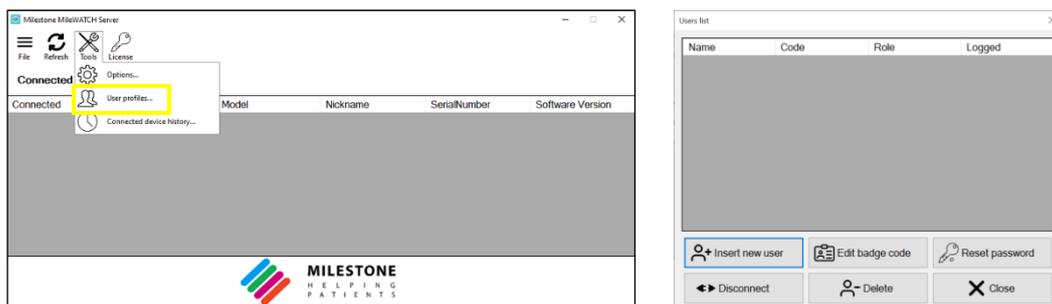
Double-click the MileWATCH Server icon at the bottom right to open the main screen:



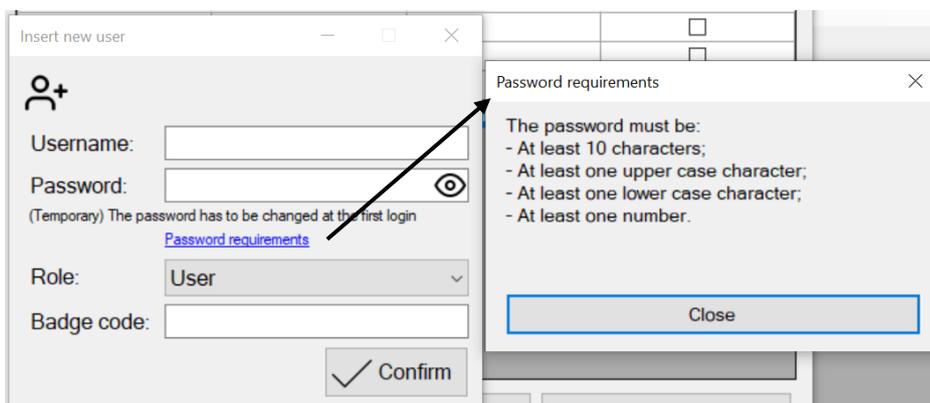
#### 3.2.2. Create a new user

One or more users must be created to access the R-Tracker software.

- a. Select **Tools\User profiles** (yellow box) and select **Insert new user**.



- b. Enter **User name, Password and Role** and press **Confirm**. In the field **Role** always enter **User**. The Administrator role will be used for future applications.



**There is no limit to the number and type of characters that can be entered in the User name field.**

**The password field must contain:**

- **At least 10 characters**
- **At least one upper case character**
- **At least one lower case character**
- **At least one number**

**There is no limit to the number of users that can be entered.**

It is also possible to enter the badge number for each user. The badge number can be used to access the R-Tracker software without entering Username and Password.

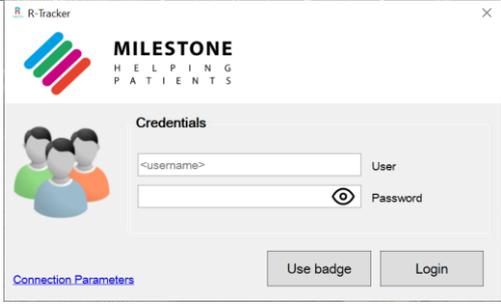
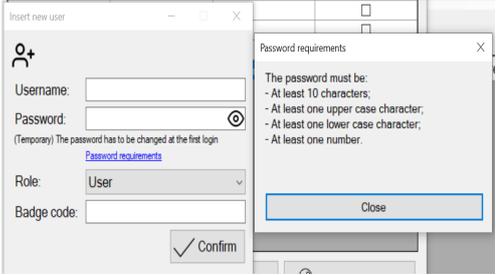
**3.2.3. Opening R-Tracker software**

You may now access the R-Tracker software by clicking the following icon:



The following screens appear when you open the R-Tracker software. Proceed according to the following instructions:

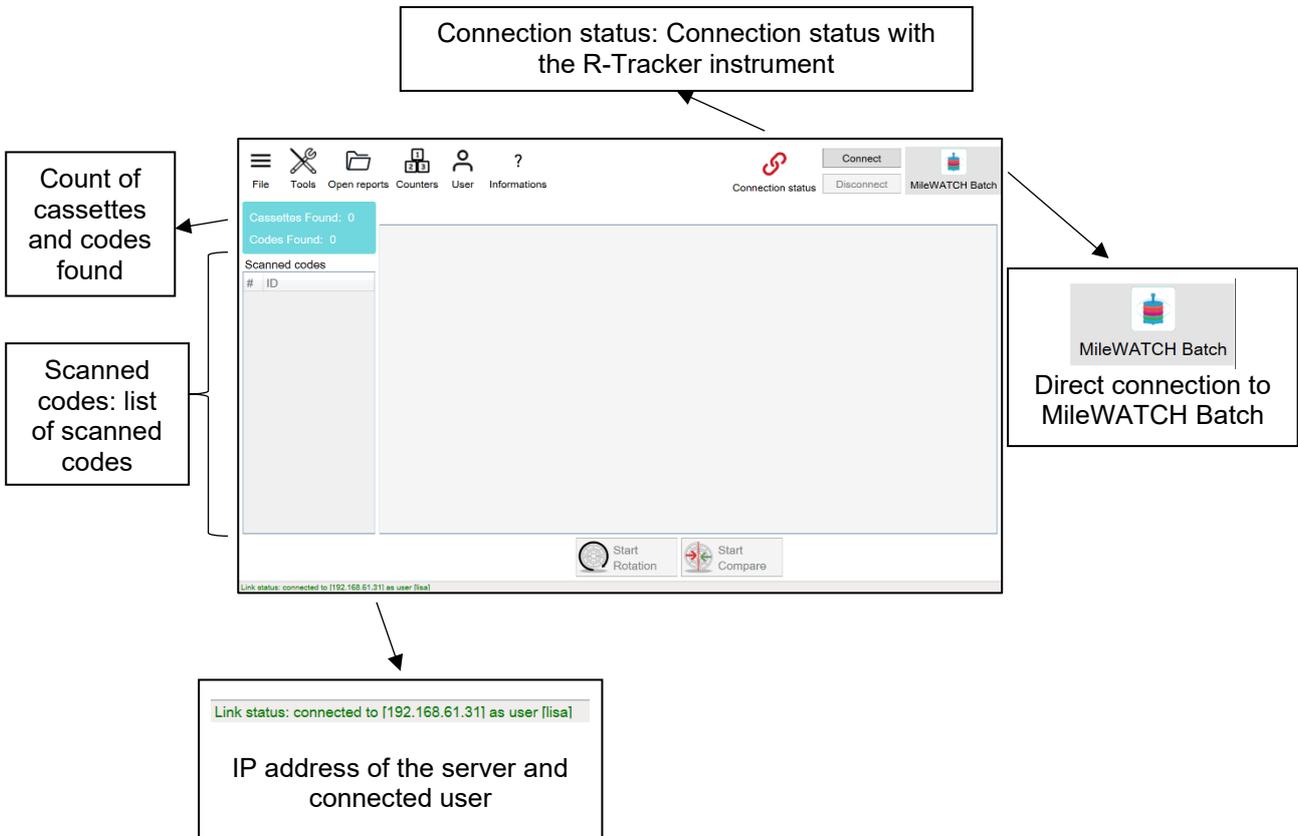
<p>Enter <b>username</b> and <b>password</b></p>	
<p>Upon first access, you will be requested to set a new password which only the user knows. Click <b>Apply</b></p> <p></p> <p><b>The password field must contain:</b></p> <ul style="list-style-type: none"> <li>• <b>At least 10 characters</b></li> <li>• <b>At least one upper case character</b></li> <li>• <b>At least one lower case character</b></li> <li>• <b>At least one number</b></li> </ul>	

<p>It is possible to login by entering just the badge by clicking <b>Use badge</b></p>	
<p>Enter the badge code in the window that appears and click <b>Login</b></p>	



If you lose the password, contact the MileWATCH Server administrator to restore the user.

The R-Tracker software opens automatically.

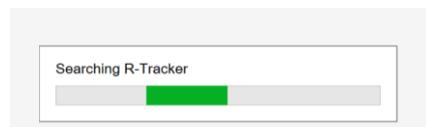


### 3.3. R-Tracker unit connection status

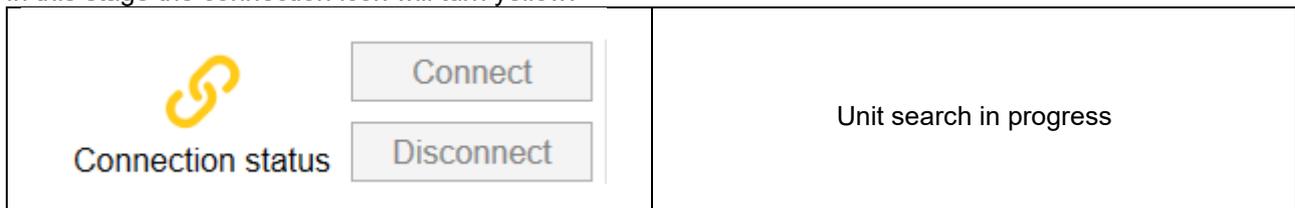
The connection icon indicates whether the R-Tracker unit is connected to the computer or not, as explained below:



In this case press Connect and the R-Tracker search will begin automatically. Check that the R-Tracker unit is on and correctly connected to the PC.



In this stage the connection icon will turn yellow.

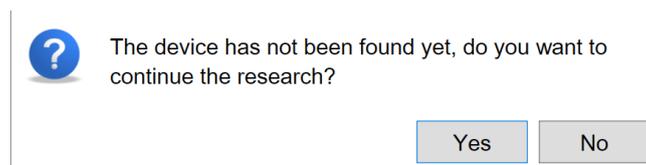


If the instrument is found, the icon turns green:



Press Disconnect to disconnect the R-Tracker unit from the R-Tracker software.

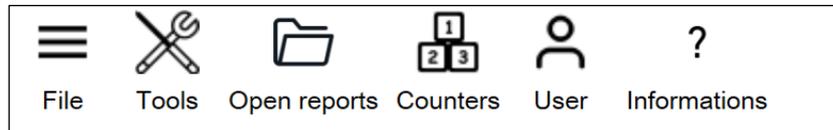
If the instrument is not found, the following question appears as to whether to attempt a further search.



If the R-Tracker instrument does not connect, check that it is on and correctly connected to the computer.

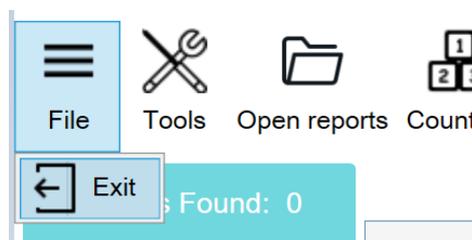
### 3.4. General settings

The control bar is located at the top left with the system settings described in the following sections.

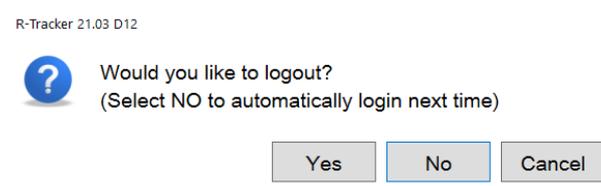


#### 3.4.1. File

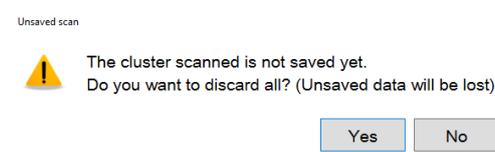
Select **File/Exit** to exit the software as explained in Chapter 3.7



Based on the settings in Connection (refer to chapter 3.4.2.4), you will be asked whether to keep the current user logged in “**Would you like to logout? (Select NO to automatically login next time)**” :



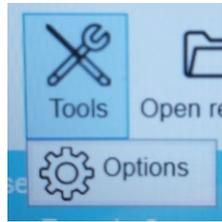
If a scan was performed and not saved, the system asks for a further confirmation to exit: “**The cluster scanned is not saved yet. Do you want to discard all? (Unsaved data will be lost)**”:



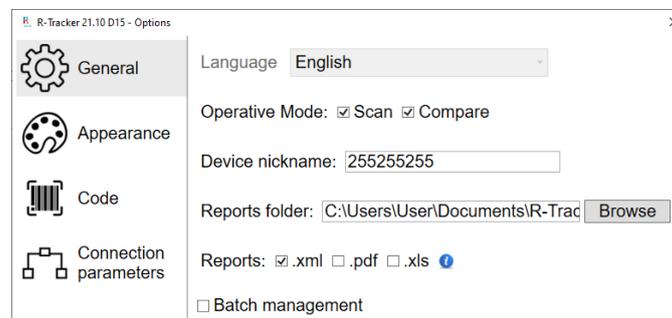
**If you answer YES, the scanning data will be lost.**

### 3.4.2. Tools

Open **Tools\Options** to access all the R-Tracker settings.



#### 3.4.2.1 General



Select "General" to set the following fields:

- **Language:** select the language with which you want to set the R-Tracker software. Only English is currently available.
- **Operative mode:** one or more of the following fields can be enabled:
  - Enable the Scan field to activate scanning of the cluster before processing
  - Enable the Compare field to activate scanning of the cluster after processing so as to compare the cassettes inserted in the processor

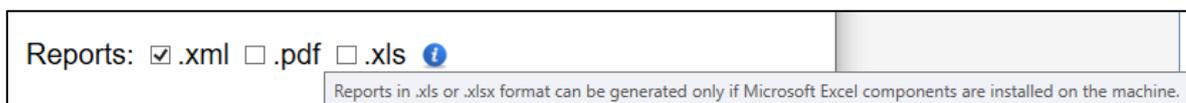


**A Cluster is a set of cassettes and a Batch is a set of clusters.**

- **Device nickname:** enter a name for the instrument. Number 255255255 is assigned by default.
- **Reports folder:** insert the path of the reports saving folder. C:\Users\User\Documents\R-Tracker is saved by default. Press Browse to change the saving path

Reports folder:

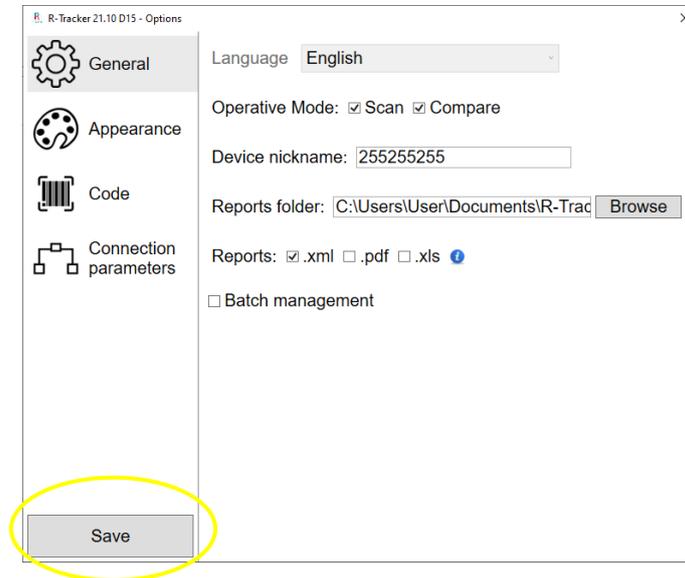
- **Reports:** enable the format in which you want to save the reports (more than one format can be selected). The .xml format is enabled by default. Selecting the icon "i" displays the following message:



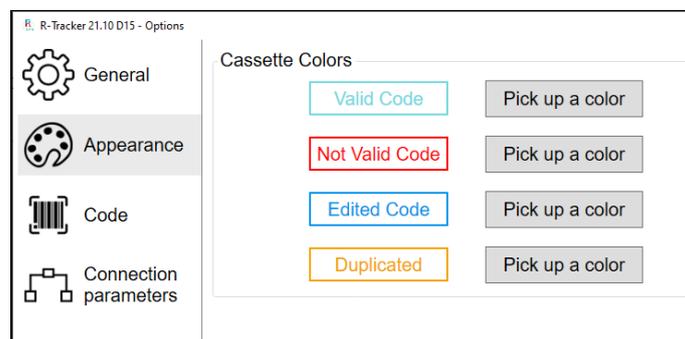
**Reports in .xls or .xlsx format can be generated only if Microsoft Excel components are installed on this machine.**  
See chapter 3.4.3 where the available types of reports are shown.

- **Batch management:** enable this field to create a batch directly with the R-Tracker software (see chapter 3.5.2)

When the changes have been made, press “**Save**” to exit the settings screen and save the changes.



### 3.4.2.2 Appearance



Select “**Appearance**” to set the color with which you identify the scanned cassettes.

The cassette codes can be in one of the following statuses after scanning:

- **Valid Code:** cassette with a unique code within the cluster and correctly detected
- **Not Valid Code:** cassette detected, but code incorrectly read
- with code entered manually via the editing function (**Edited Code**): cassette with code not correctly read during scanning to which the code was manually assigned by the operator
- **Duplicated:** cassette the code of which is present in more than one cassette inside the scanned cluster.

To change the cassette color, press the key next to the type you want to edit:

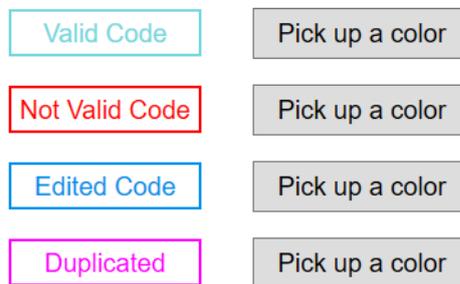
Pick up a color

The following screen appears where you may select the color. Click OK.

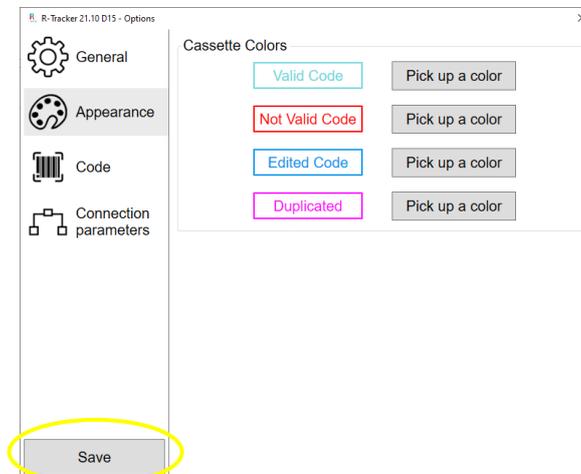


Now the color of the cassette type is changed as shown in the following image:

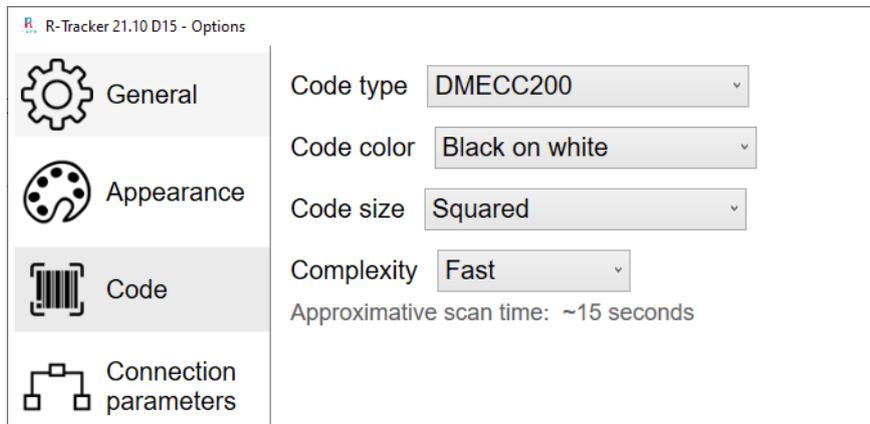
### Cassette Colors



When the changes have been made, press **“Save”** to exit the settings screen and save the changes.

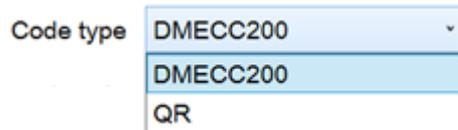


### 3.4.2.3 Code



In this section, the characteristics of the code printed on the cassettes are set. The settings change based on the type of code selected.

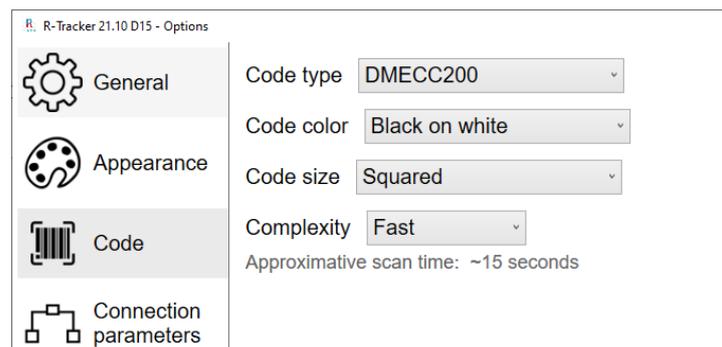
**Code type:** enter the type of code printed on the cassettes in this field



Code type	Example
DMECC200	
QR	

The relative parameters will appear for each type of code:

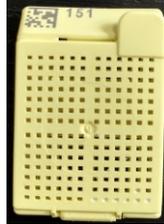
- DMECC200 or DataMatrix



1. Code color: choose between
  - **Black on white:** black on cassette color.
  - **White in Black:** cassette color on black.
  - **Both.**

The following is an example:

Black on white (Black on cassette color)



White in black (Cassette color on black)



2. Code size: choose one of the following shapes:
  - **Defined:** select this option to enter the **Number of modules** as shown in the following image:

Code type

Code color

Code size

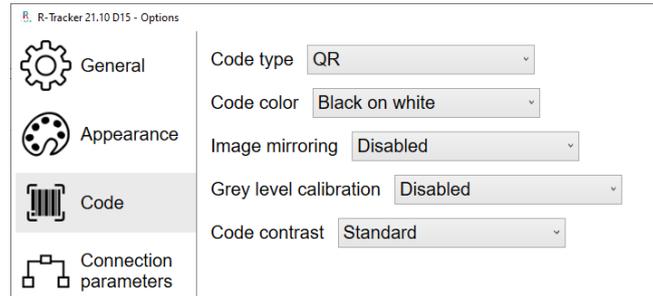
Number of modules

Complexity

Approximative scan time: ~15 seconds

- **Square:** square with any number of modules
  - **Rectangular:** rectangular with any number of modules.
  - **Free:** square and rectangular with any number of modules.
3. Complexity (scanning precision): choose between one of the following options:
    - **Slow:** greater precision with scanning speed of approximately 30 seconds
    - **Medium:** medium precision with scanning speed of approximately 20 seconds
    - **Fast:** lower precision with scanning speed of approximately 15 seconds.

➤ QR



1. Code color: choose between
  - **Black on white:** black on cassette color.
  - **White in Black:** cassette color on black.
  - **Both.**

The following is an example:

Black on white (Black on cassette color)

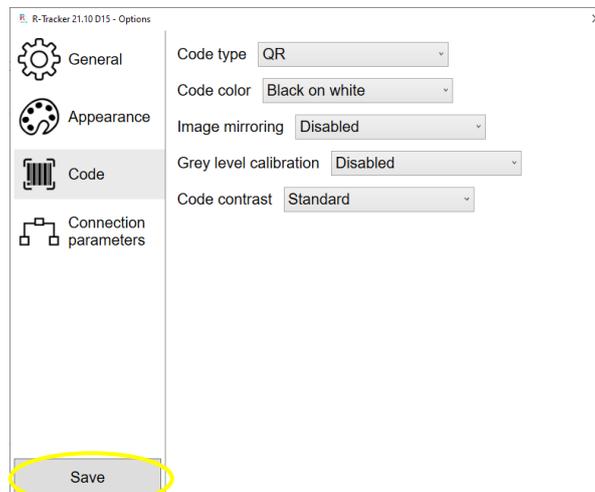


White in black (Cassette color on black)

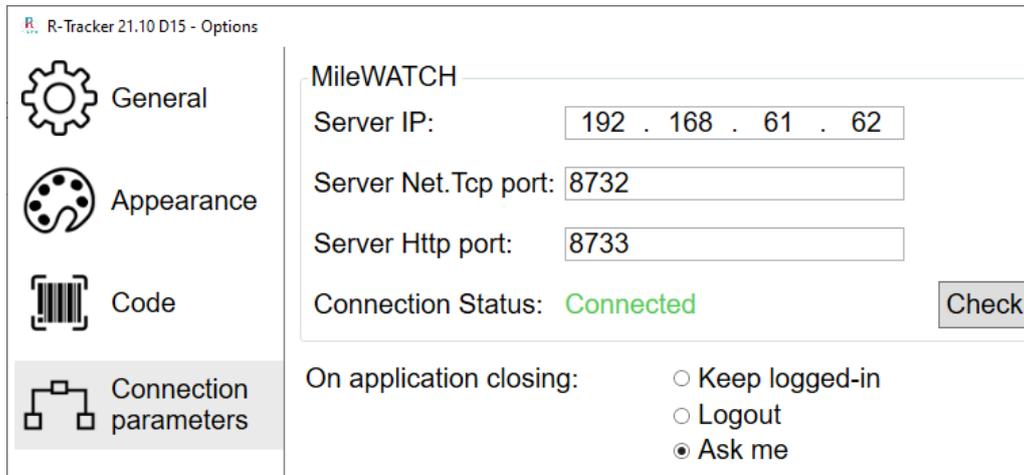


2. Image mirroring: enable if the code is mirror printed
3. Grey level calibration: enable if the background is not uniform
4. Code contrast: you may set to the level of contrast between code and background:
  - Elevated
  - Standard (recommended)
  - Low
  - Very low
  - Automatic

When the changes have been made, press "**Save**" to exit the settings screen and save the changes.



### 3.4.2.4 Connection parameters (connection settings and saving of login credentials)



R-Tracker 21.10 D15 - Options

General

Appearance

Code

Connection parameters

MileWATCH

Server IP: 192 . 168 . 61 . 62

Server Net.Tcp port: 8732

Server Http port: 8733

Connection Status: **Connected**

On application closing:

Keep logged-in

Logout

Ask me

**MileWATCH:** this part of the screen contains the connection parameters with MileWATCH Server software that are entered the first time you access the R-Tracker software (see chapter 3.1.4)

- **Server IP:** IP address of the computer on which MileWATCH Server is installed
- **Server Net.Tcp and Http port:** communication ports that have been inserted at the end of the installation of MileWATCH Server.
- **Connection Status:** contains the result of the connection test after having selected the Check button



**R-Tracker 60701 (with PC and monitor) will contain the parameters relative to the PC installed on the instrument. Before changing these parameters, contact [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com)**

**On application closing:** you may choose the saving mode of the login credentials when closing the software, by selecting one of the following:

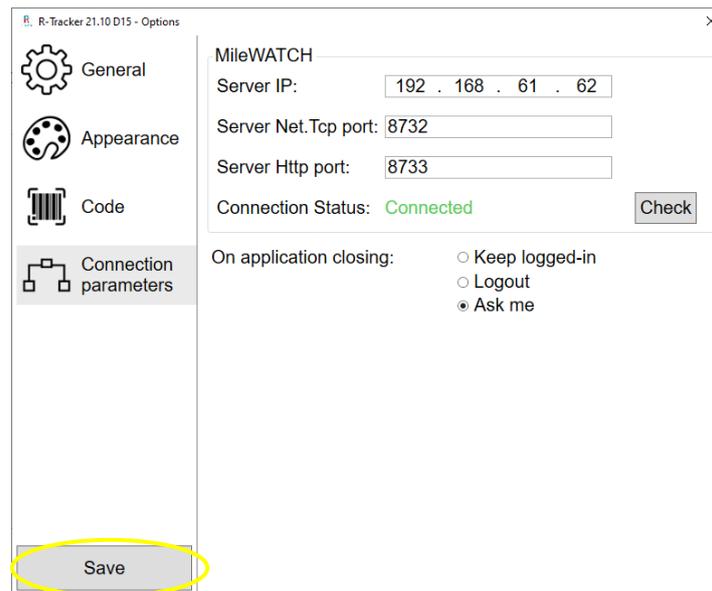
- **Keep logged-in:** the software will save the user's login credentials and will no longer request them in the future.
- **Logout:** the software will not save the user's login credentials and will request them every time the software is opened.
- **Ask me:** the question is displayed where you may select whether or not you want to save the credentials for the next login **"Would you like to logout? (Select NO to automatically login next time)"** :



?

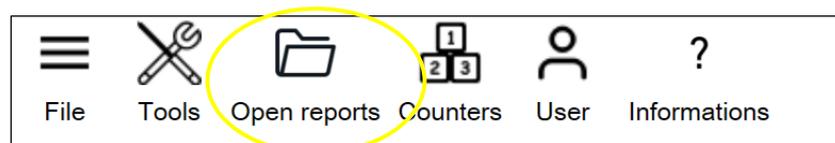
Would you like to logout?  
(Select NO to automatically login next time)

When the changes have been made, press **"Save"** to exit the settings screen and save the changes.

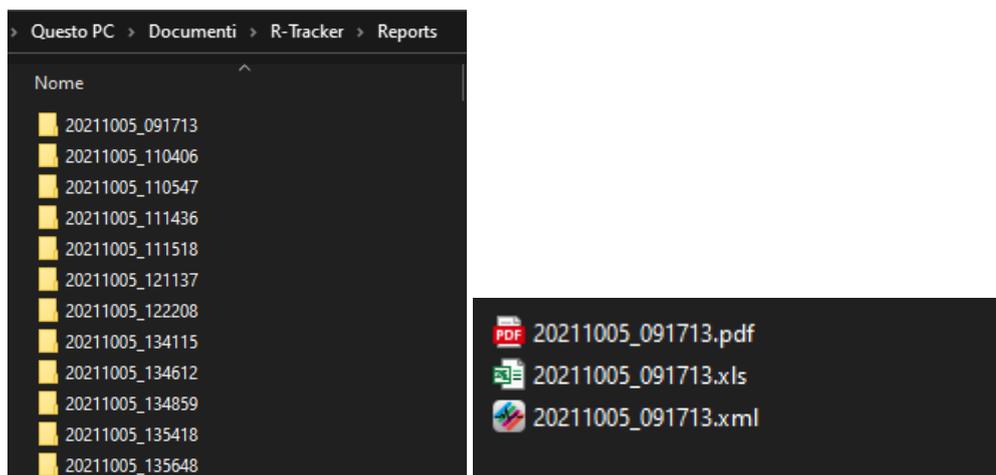


### 3.4.3. Open Reports

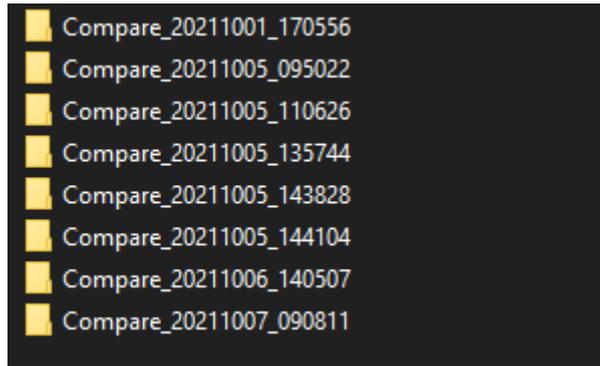
Select **“Open Reports”** to open the folder where the automatically generated reports are saved when scans or comparisons are accepted.



The list of all the reports generated will be displayed, divided into folders named with date and time the scan was accepted.



For scans carried out by comparison (Compare), the folder name will also contain the word “Compare”



The reports can be saved in the following formats:



- xml
- pdf
- xls

For further information, please contact the manufacturer: [application@milestonemedsrl.com](mailto:application@milestonemedsrl.com).

The following are some examples of reports in different formats:

.xml format:

```
<?xml version="1.0"?>
<ScanReport xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <ScanDate>2021-10-12 16:45:40</ScanDate>
  <Model>R-Tracker</Model>
  <Nickname>R-Tracker 003</Nickname>
  <SerialNumber>123456789</SerialNumber>
  <NumberOfCassettes>70</NumberOfCassettes>
  <Cassettes>
    <string>MILES0118,</string>
    <string>MILES0132,</string>
    <string>MILES0151,</string>
    <string>MILES0108,</string>
    <string>MILES0097,</string>
```

.pdf format:

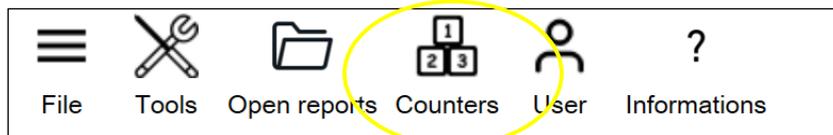


.xls format:

MILESTONE HELPING PATIENTS		Cluster report	
<b>Cluster ID:</b>	2021/10/12 16:46:15 C1	<b>Creator:</b>	MirkoRT
<b>Scan date:</b>	2021-10-12 16:45:40	<b>Nickname:</b>	R-Tracker 003
		<b>Serial Number:</b>	123456789
Cassette ID			
MILES0118,	MILES0132,	MILES0151,	
MILES0108,	MILES0097,	MILES0124,	
MILES0140,	MILES0113,	MILES0154,	
MILES0145,	MILES0138,	MILES0157,	
ASP300 99	333333333/	MILES0141,	

### 3.4.4. Counters

The “Counters” section shows the count of the various actions of the R-Tracker.



It is possible to see the total of the counters divided by scans and comparisons.

#### Total counters

Scans
Batches managed: 2
Rotations done: 130
Cassettes scanned: 4481
Null cassettes: 134
Edited codes: 6
Compares
Compares done: 16
Cassettes compared: 85
Cassettes compared null: 3
Cassettes compared edited: 0
Passed compares: 3
Failed compares: 5
Extra cassettes: 1
Missed cassettes: 1
Execution time: 12 h, 23 m, 57 s

Batches managed: number of batches managed  
 Rotations done: number of rotations done  
 Cassettes scanned: number of cassettes scanned  
 Null cassettes: number of cassettes not read  
 Edited codes: number of cassette codes edited manually

Compares done: number of comparisons done  
 Cassettes compared: number of compared cassettes  
 Cassettes compared null: number of compared cassettes not read  
 Cassettes compared edited: number of compared cassettes edited  
 Passed compared: correct comparisons  
 Failed compare: failed comparisons  
 Extra cassettes: new cassettes after processing  
 Missed cassettes: cassettes lost after processing

Execution time: working time of the instrument

It is possible to see the partial of the counters divided by scans and comparisons.

### Partial counters

**Scans**

Batches managed: 2  
Rotations done: 36  
Cassettes scanned: 551  
Null cassettes: 5  
Edited codes: 3

**Compares**

Compares done: 6  
Cassettes compared: 72  
Cassettes compared null: 1  
Cassettes compared edited: 0  
Passed compares: 2  
Failed compares: 3  
Extra cassettes: 0  
Missed cassettes: 1

Last reset: 2021-10-05 @11:13:59

Batches managed: number of batches managed  
Rotations done: number of rotations done  
Cassettes scanned: number of cassettes scanned  
Null cassettes: number of cassettes not read  
Edited codes: number of cassette codes edited manually

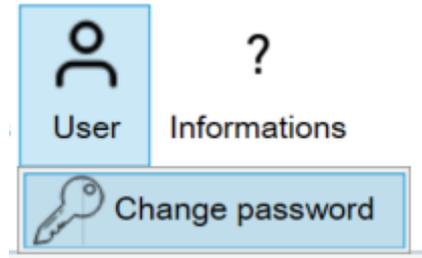
Compares done: number of comparisons done  
Cassettes compared: number of compared cassettes  
Cassettes compared null: number of compared cassettes not read  
Cassettes compared edited: number of compared cassettes edited  
Passed compared: correct comparisons  
Failed compare: failed comparisons  
Extra cassettes: new cassettes after processing  
Missed cassettes: cassettes lost after processing

Last reset: date and time of the last reset of the partial counters

Click "Reset partial counters" to reset the partial counters.

### 3.4.5. User (connected user management)

Select **User/Change password** to change the password.



Enter the current password and the new password twice and press **Apply** to save.

 A screenshot of a dialog box titled 'Change password for user lisa'. It contains three password input fields: 'Old password:', 'New password:', and 'Confirm new password:'. Each field has a toggle icon to its right. Below the fields is a blue link labeled 'Password requirements'. At the bottom are two buttons: 'Exit' on the left and 'Apply' on the right.

#### The password field must contain:



- At least 10 characters
- At least one upper case character
- At least one lower case character
- At least one number

### 3.4.6. Information (Software version)

Pressing the **Information/About** tab displays the installed software version.



### 3.5. Performing a scan in R-Tracker

R-Tracker allows you to run a **scan** of the cassettes when the cluster is ready for processing.

Furthermore, scanning also allows you to create batches so as to use the tracking system in the enabled Milestone processor, as explained in Chapter 3.5.2.



**R-Tracker makes it possible to scan only cassettes inserted into a layer or half layer of the split rack for 210 cassettes.**

#### 3.5.1. Loading cassettes into the split rack layers

The split rack consists of 3 separate layers; each layer holds 70 cassettes for a total of 210 cassettes (figure below).

Load the 3 layers of the Split Rack CODE 66165A/210 with 210 cassettes, inserting them in the appropriate spaces with the ID code of the specimen contained, at the top.

Each layer can be split in two halves for simultaneous, convenient use in different grossing rooms and/or embedding stations.

Each layer is also fitted with a locking mechanism (circles in the picture below) to assure perfect closing of the two halves.



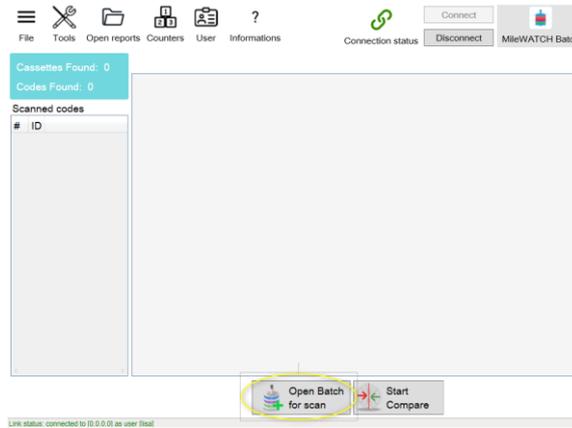
#### 3.5.2. Performing a rotation with batch management



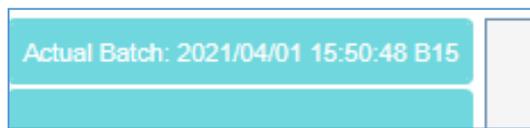
**To use the batch management, check that this is active in settings. Refer to chapter 3.4.2.1.**

With the batch management function active, it is possible to scan several clusters of cassettes and automatically group them into a single batch for processing, up to a maximum of 210 cassettes.

Open the batch by pressing **Open Batch for scan** at the bottom left.



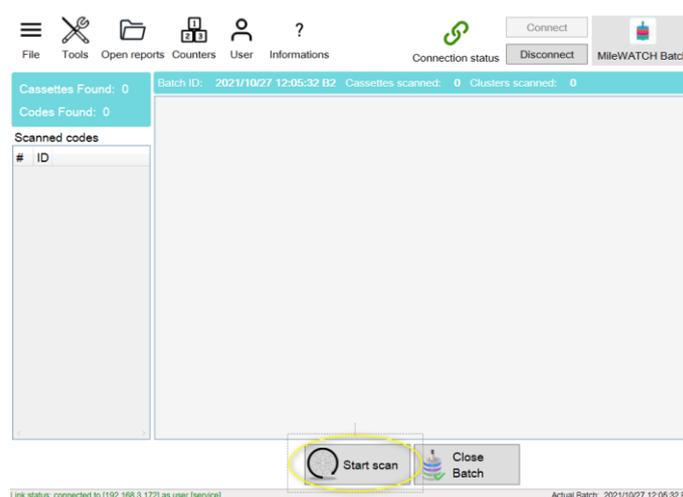
The name assigned to the batch appears at top left in the first blue box:



Place the layer or half layer of the rack with the first cluster of cassettes on the R-Tracker rack plate, making sure it is correctly positioned: the central part of the raised plate must enter the hole of the rack layer.

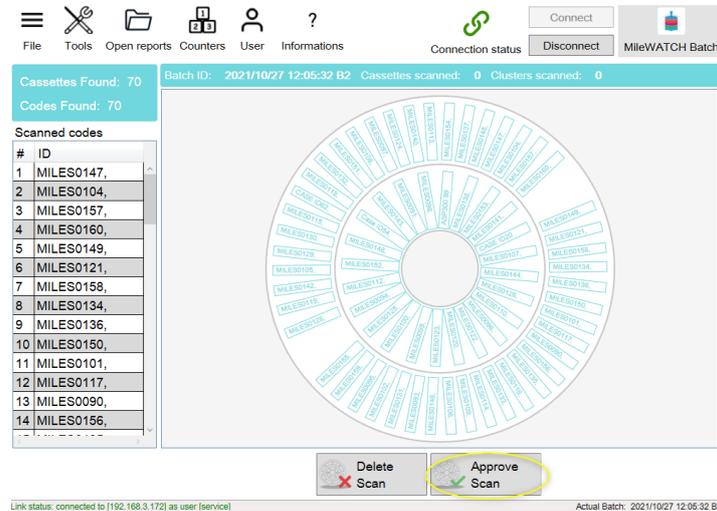


Press **Start Scan** to start scanning the cassettes.



During the rotation of the layer, all the cassettes present are counted and the code of each is read and stored. At the end of rotation, the software analyses the read codes and shows the list.

The blue box in the left column shows the number of **Cassettes Found** and the number of **Codes Found** and the list of **Scanned codes**. The schematic representation of the cassettes found is shown in the middle of the screen, each with its relative code.

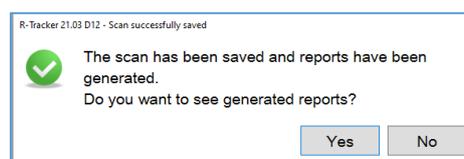


It is now necessary to accept the scan by pressing **Approve Scan** to send the information to MileWATCH Server.

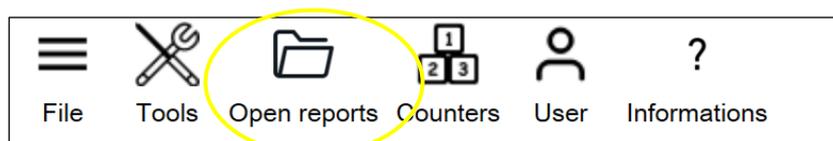
Confirm sending information to the server by answering “yes” to the following message “**Do you want to approve and send the data to the server?**”:



The scan report is automatically generated and saved and it can be immediately opened by answering “yes” to the following message and to open the path where it was saved: “**The scan has been saved and reports have been generated. Do you want to see generated reports?**”:

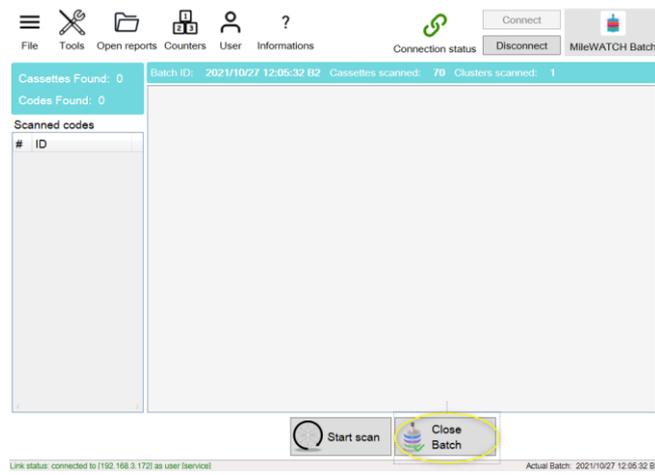


The saved report can be opened at a later stage by pressing the “Open Reports” button, at the top in the menu bar.

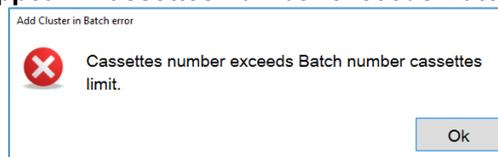


It is now possible to scan another cluster (another layer of the same rack), which will be assigned to the same batch and continue until all batch clusters have been read. In this way, all cassettes inserted in the same rack are assigned to the same batch and will be processed together.

Then press **Close Batch** to close the batch.



The maximum number of cassettes that can be scanned within a batch is 210. The sum of the cassettes of the clusters of a batch must be 210 cassettes at most, otherwise the following message will appear “Cassettes number exceeds Batch number cassettes limit”:

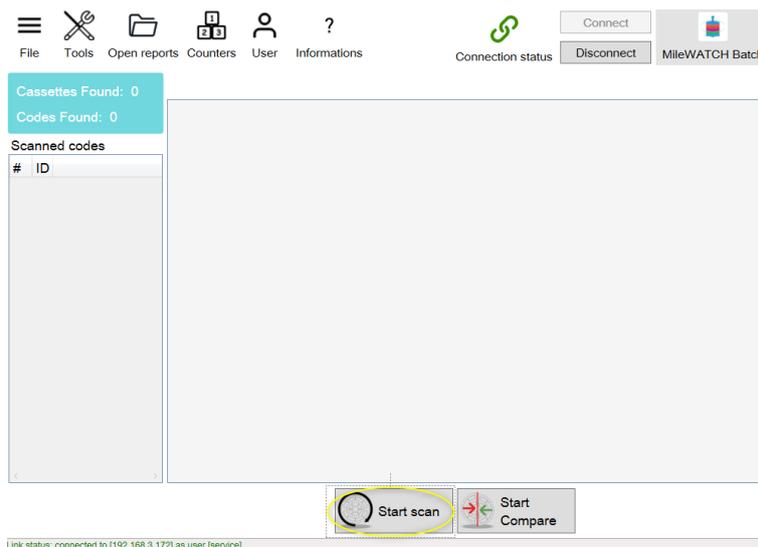


### 3.5.3. Performing a scan without batch management

Place the layer or half layer of the rack with the first cluster of cassettes on the R-Tracker rack plate, making sure it is correctly positioned: the central part of the raised plate must enter the hole of the rack layer.

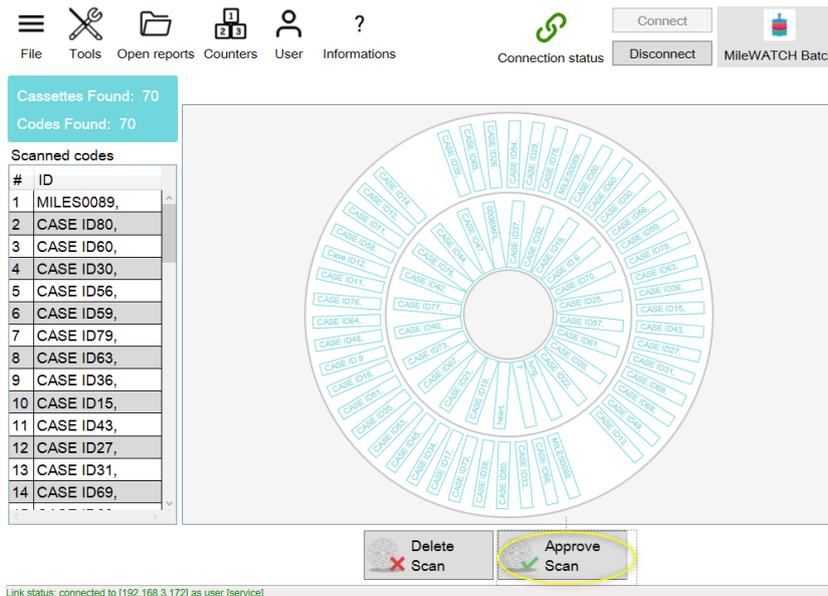


Press **Start Scan** to start scanning the cassettes.



During the rotation of the layer, all the cassettes present are counted and the code of each is read and stored. At the end of rotation, the software analyses the read codes and shows the list.

The blue box in the left column shows the number of **Cassettes Found** and the number of **Codes Found** and the list of **Scanned codes**. The schematic representation of the cassettes found is shown in the middle of the screen, each with its relative code.

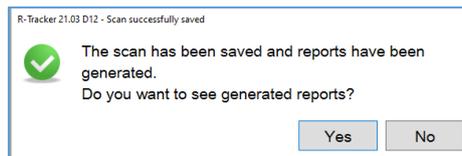


It is now necessary to accept the scan by pressing **Approve Scan** to send the information to MileWATCH Server.

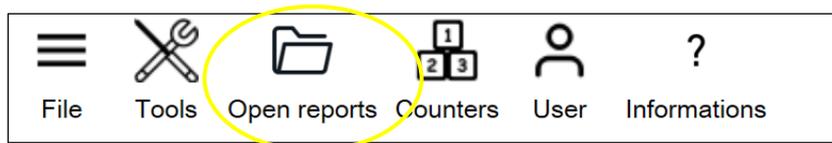
Confirm sending information to the server by answering “yes” to the following message “**Do you want to approve and send the data to the server?**”:



The scan report is automatically generated and saved and it can be immediately opened by answering “yes” to the following message and to open the path where it was saved: “**The scan has been saved and reports have been generated. Do you want to see generated reports?**”:

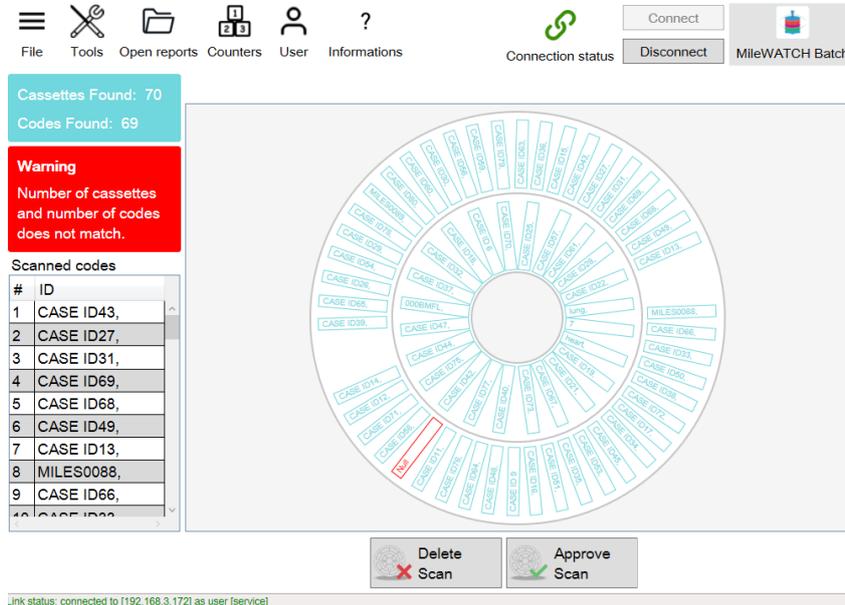


The saved report can be opened at a later stage by pressing the “Open Reports” button, at the top in the menu bar.



### 3.5.4. Rotation with cassette code not found

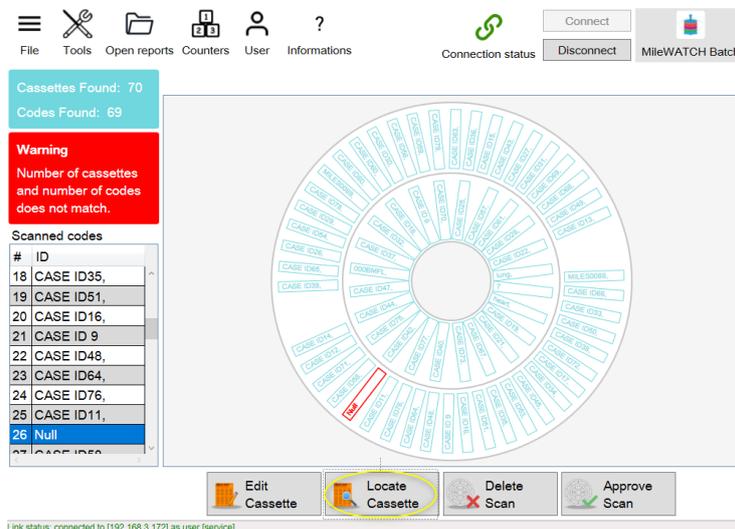
If a cassette was not inserted correctly, i.e. turned upside down, or if the cassette code is damaged, the cassette is found but the code is not read. As shown in the following image, the cassette in the schematic representation is highlighted by a different color and the left column shows a red box with a warning message:



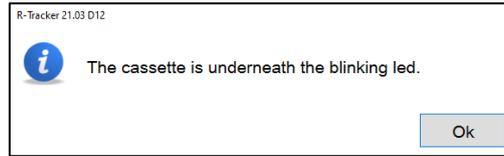
A rotation with at least one null cassette code is not acceptable as it lacks information to send to the MileWATCH Server. If you attempt to accept a scan with null cassette codes, the following message will appear: **“Null cassette found. Cannot approve the scan”**:



In this case, you can use the Locate function of the cassette(s) in question. Select the cassette within the schematic representation and press the **“Locate Cassette”** button that appears below.

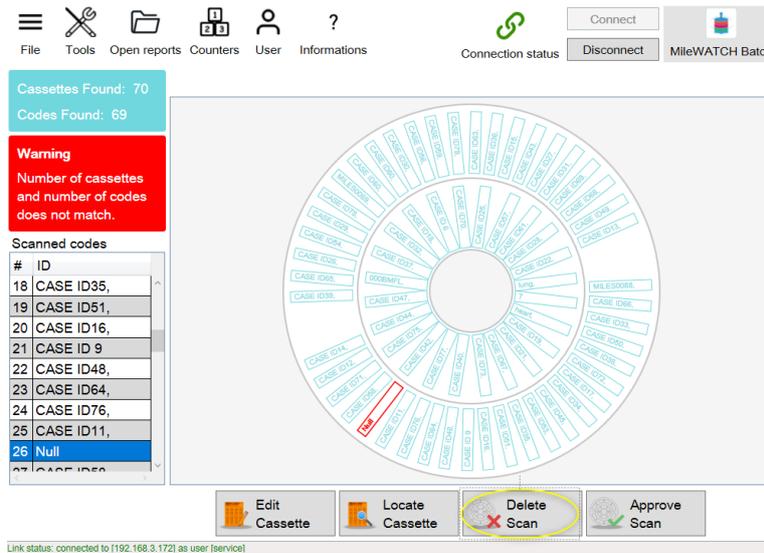


The system rotates the rack layer until the cassette to be located is underneath the laser pointer allowing it to be identified and the following message appears **“The cassette is underneath the blinking led.”**



At this point, the operator can:

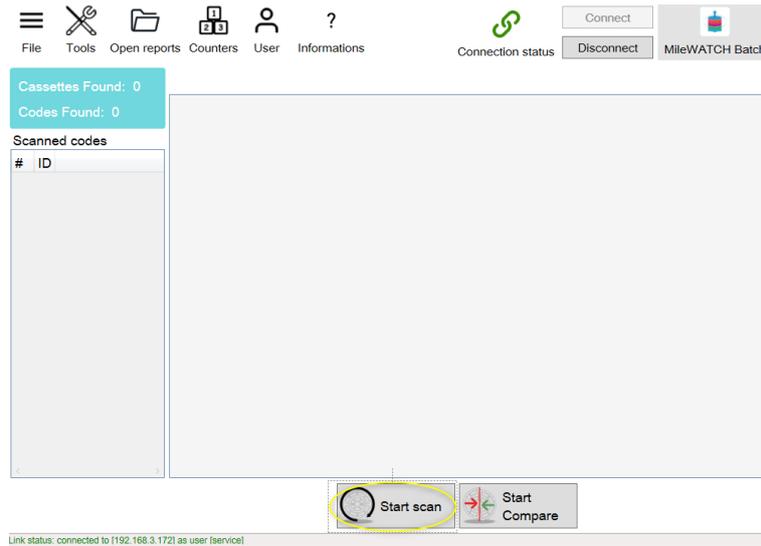
- A) Repeat the scan:
  - a. Correctly reposition the cassette and repeat the scan, cancelling the one performed by pressing **Delete Scan**:



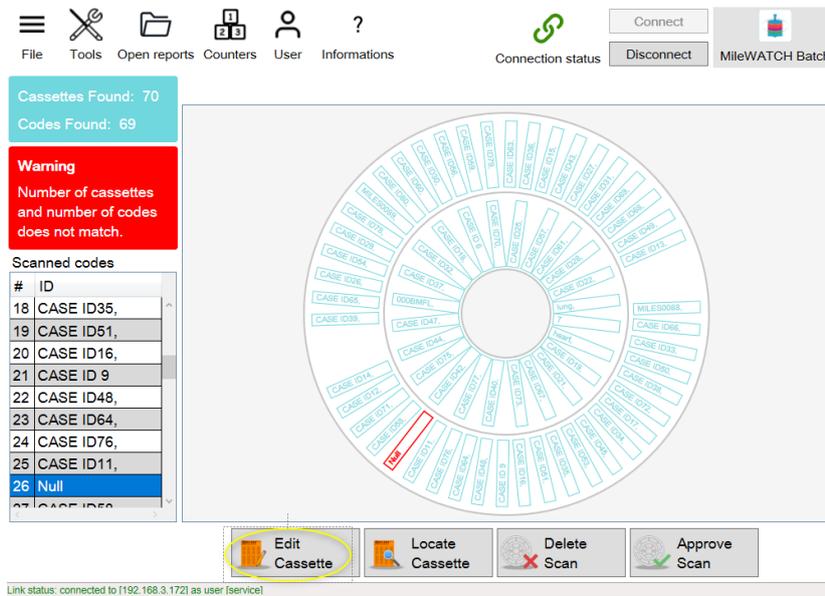
- b. Answer YES to the question **“Do you really want to delete the scanned cluster? All data will be lost”**:



- c. Then repeat the scan by pressing **Start Scan**



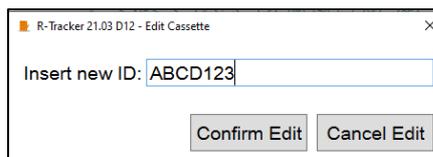
- B) Manually assign the code to the cassette
  - a. Press Edit Cassette or double-click the cassette.



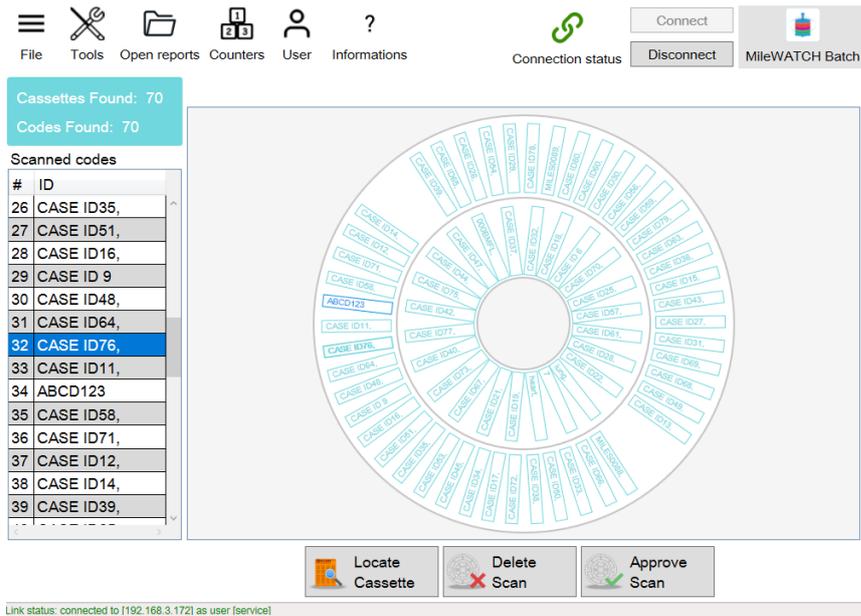
- b. The field **Insert new ID** will appear to enter the code:



- c. Enter the code using the keypad or the barcode reader and **press Confirm Edit** to enter the new code or **Cancel Edit** to go back to the previous page:



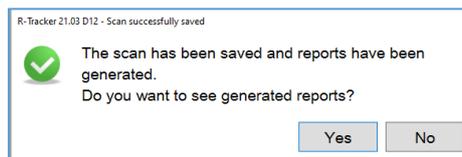
In the schematic representation, the cassette will be highlighted by a different color and the number of codes found will match the number of cassettes found, as indicated in the blue box at the top left.



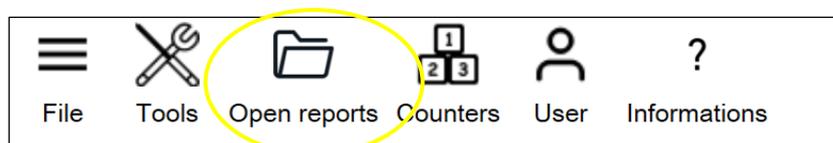
It is now possible to approve scanning of the cluster, by pressing **Approve Scan**. Confirm sending information to the server by answering “yes” to the following message “**Do you want to approve and send the data to the server?**”:



The scan report is automatically generated and saved and it can be immediately opened by answering “yes” to the following message and to open the path where it was saved: “**The scan has been saved and reports have been generated. Do you want to see generated reports?**”:

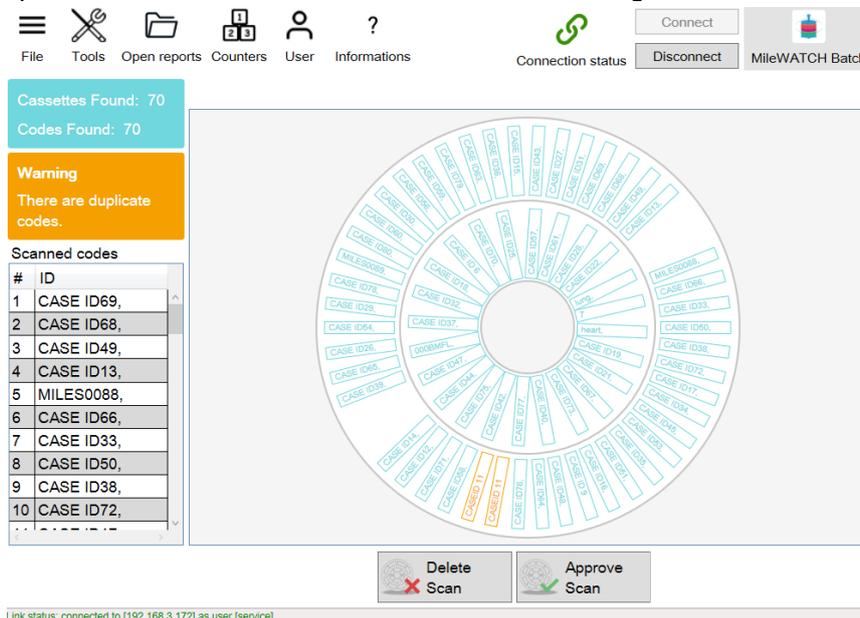


The saved report can be opened at a later stage by pressing the “Open Reports” button, at the top in the menu bar.



### 3.5.5. Rotation with identical cassette codes

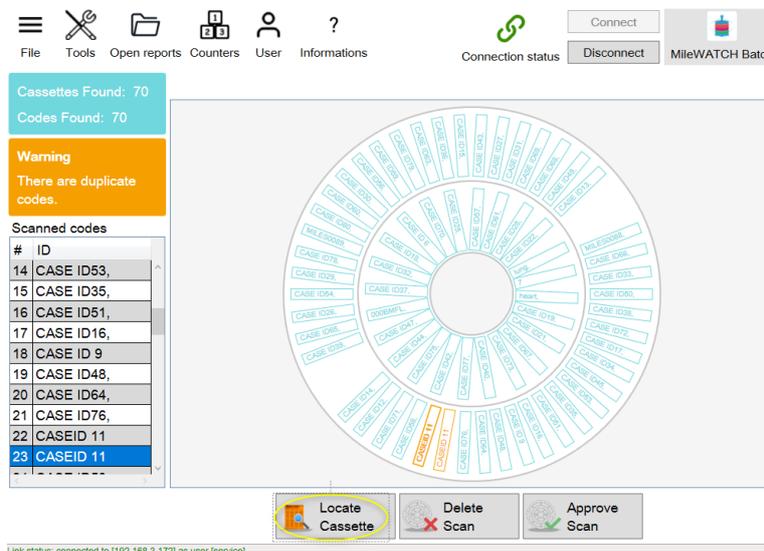
If two or more cassettes within a cluster have the same code, the system reports it by highlighting the cassettes in the schematic representation with a different color and with a message in the red box on the left:



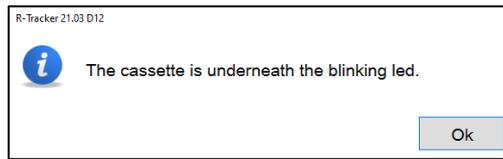
If two or more cassettes have the same code, it is not possible to accept the scan and send it to MileWATCH Server. In fact, it is essential for the codes of the cassettes to be unambiguous and unique. If you press **Approve Scan** the following message appears **“Duplicate cassettes found. Cannot approve the scan”**:



In this case, you can use the Locate function of the cassette(s) in question. Select the cassette within the schematic representation and press the **“Locate Cassette”** button that appears below.

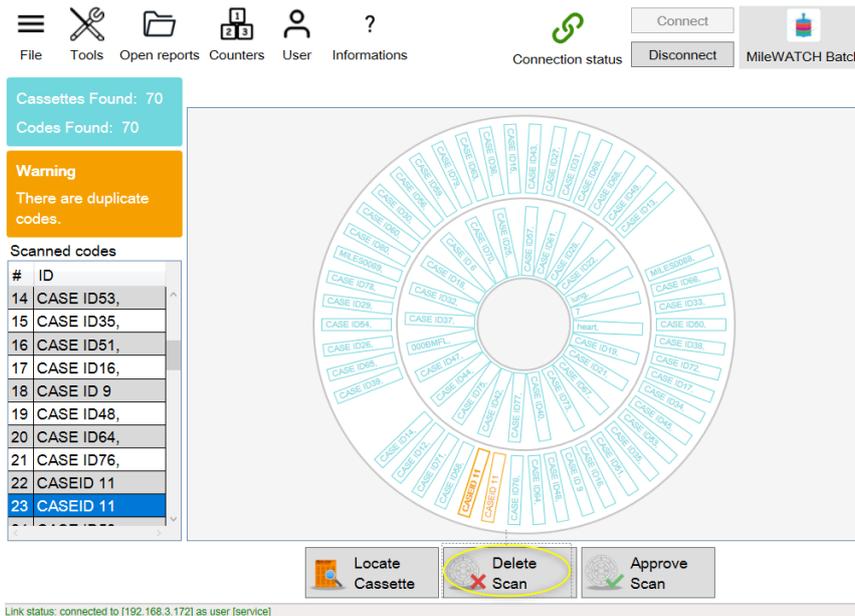


The system rotates the rack layer until the cassette to be located is underneath the laser pointer allowing it to be identified and the following message appears **“The cassette is underneath the blinking led.”**

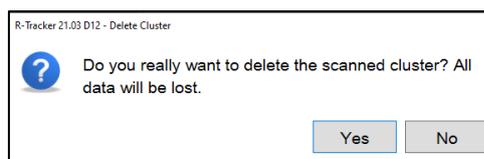


In this case it is not possible to intervene manually to edit the code. Find the cause of the error and repeat the scan:

A) Press **Delete Scan**



B) Answer YES to the question **“Do you really want to delete the scanned cluster? All data will be lost”**:



C) Check the cassettes with the identical code and remove the double cassette(s), then repeat the rotation pressing **Start Scan**

File Tools Open reports Counters User Informations

Connection status   MileWATCH Batch

Cassettes Found: 0  
Codes Found: 0

Scanned codes

#	ID
---	----

Link status: connected to [192.168.3.172] as user [service]

### 3.6. Performing a comparison in R-Tracker

With R-Tracker, it is possible to perform a control scan, defined **Compare**, to be performed at the end of processing in order to check that the list of processed cassettes has not changed.

#### 3.6.1. Performing a comparison with batch management

At the end of processing a cassette batch (rack with cassettes in one or more layers), it is possible to scan the cassettes to check that none have been lost.

**For a correct comparison, it is not necessary to clean the wax from the cassettes or the rack.**

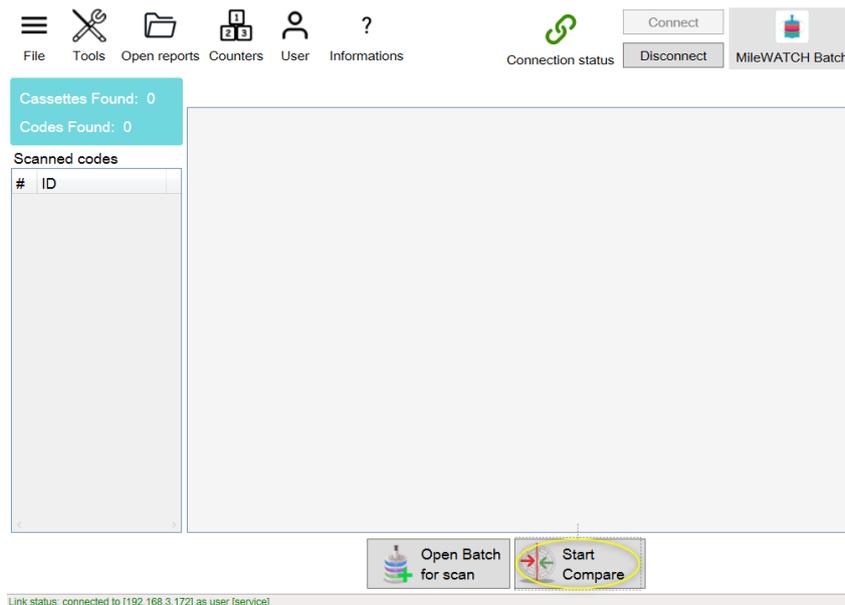
**Use the plate holder with black O-Ring, compatible with wax, shown in the following image:**



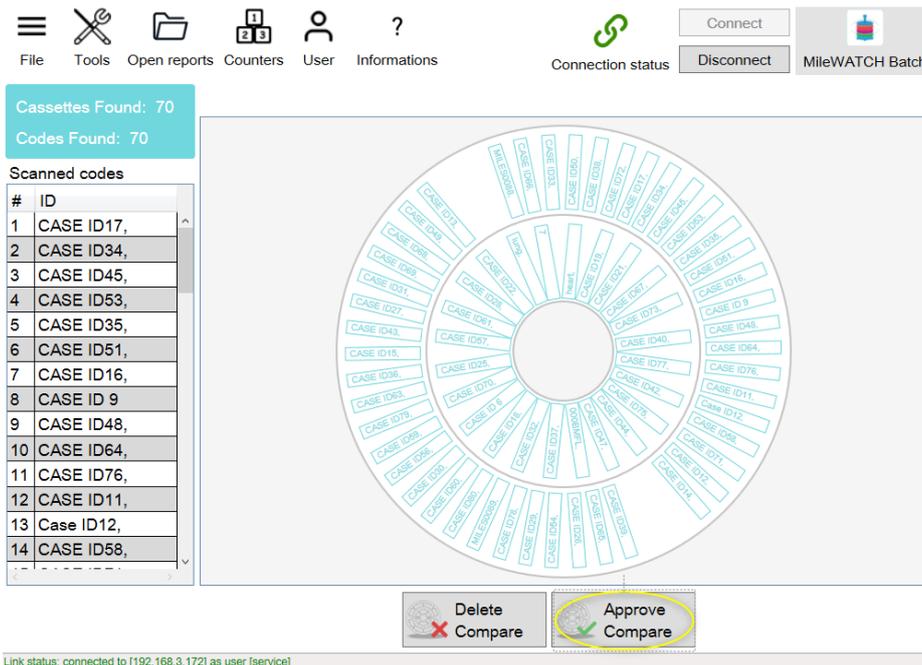
Place the layer or half layer of the rack with the first cluster of cassettes on the R-Tracker rack plate, making sure it is correctly positioned, with the central core of the plate inside the hole of the rack layer.



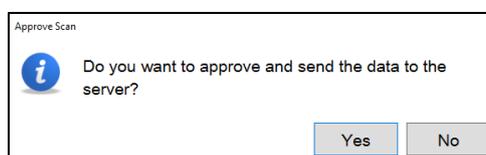
Press **Start Compare** to start scanning the cassettes.



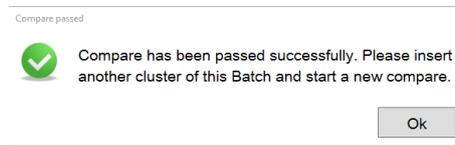
During the rotation of the layer, all the cassettes present are counted and the code of each is read and stored. At the end of rotation, the software analyses the read codes and shows the list. The blue box in the left column shows the number of **Cassettes Found** and the number of **Codes Found** and the list of **Scanned codes**. The schematic representation of the cassettes found is shown in the middle of the screen, each with its relative code.



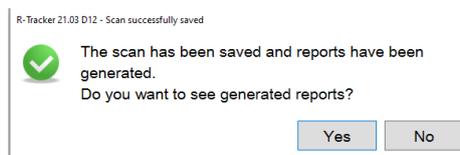
It is now necessary to accept the scan by pressing **Approve Compare** to send the information to MileWATCH Server. Confirm sending information to the server by answering “yes” to the following message “**Do you want to approve and send the data to the server?**”:



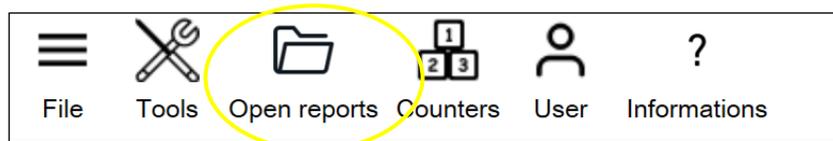
If the number of cassettes and all associated codes are identical to those obtained in the scan, the system will show the following message confirming that the cluster is complete and correct **“Compare has been passed successfully. Please insert another cluster of this Batch and start a new compare”** .:



The scan report is automatically saved and it can be immediately opened by answering “yes” to the following message and to open the path where it was saved: **“The scan has been saved and reports have been generated. Do you want to see generated reports?”**:



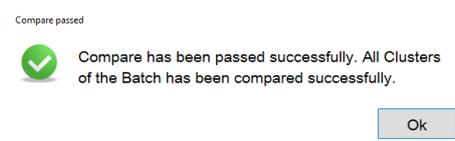
The saved report can be opened at a later stage by pressing the “Open Reports” button, at the top in the menu bar.



Now repeat the same procedure for the other clusters of the same batch.

Only the Start Compare button is present on the screen because until the comparison is completed, it is not possible to compare other batches.

The following message appears at the end of the comparison: **“Compare has been passed successfully. All clusters of the Batch have been compared successfully”** .:



### 3.6.2. Performing a comparison without batch management

At the end of processing, the cassettes of each cluster can be scanned to check that none is lost.

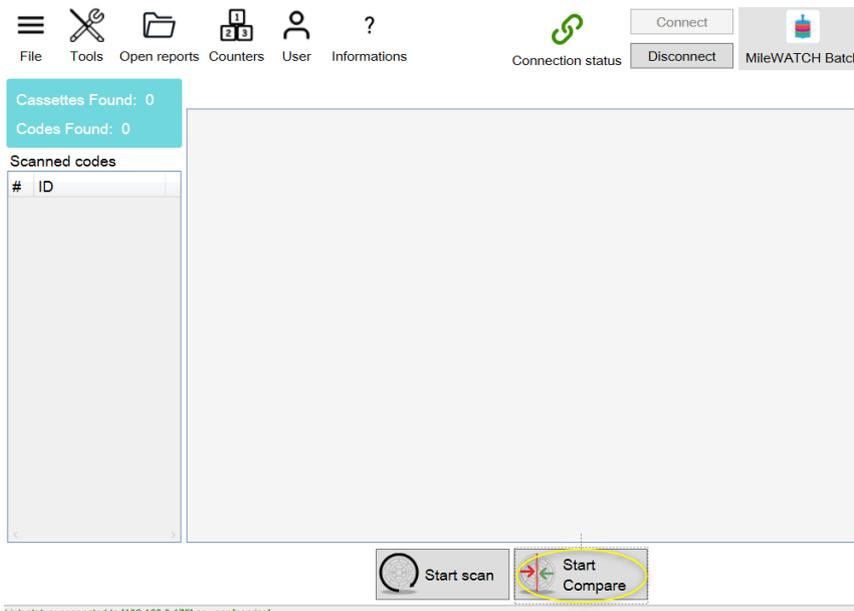
**For a correct comparison, it is not necessary to clean the wax from the cassettes or the rack.  
Use the plate holder with black O-Ring, compatible with wax, shown in the following image:**



Place the layer of the rack on the R-Tracker rack plate, making sure it is correctly positioned, with the central core of the plate inside the hole of the rack layer.



Press **Start Compare** to start scanning the cassettes.



During the rotation of the layer, all the cassettes present are counted and the code of each is read and stored. At the end of rotation, the software analyses the read codes and shows the list. The blue box in the left column shows the number of **Cassettes Found** and the number of **Codes Found** and the list of **Scanned codes**. The schematic representation of the cassettes found is shown in the middle of the screen, each with its relative code.

The screenshot shows the R-Tracker software interface. At the top, there is a navigation bar with icons for File, Tools, Open reports, Counters, User, and Informations. On the right, there are buttons for Connect, Disconnect, and MileWATCH Batch. The main area is divided into three sections:

- Summary:** A blue box on the left indicates "Cassettes Found: 70" and "Codes Found: 70".
- Scanned codes:** A table listing 14 scanned codes with their IDs.
- Diagram:** A circular diagram representing the cassette layout, with each cassette labeled with its ID.

At the bottom of the diagram, there are two buttons: "Delete Compare" (with a red X) and "Approve Compare" (with a green checkmark). A status bar at the very bottom shows "Link status: connected to [192.168.3.172] as user [service]".

#	ID
1	CASE ID17,
2	CASE ID34,
3	CASE ID45,
4	CASE ID53,
5	CASE ID35,
6	CASE ID51,
7	CASE ID16,
8	CASE ID 9
9	CASE ID48,
10	CASE ID64,
11	CASE ID76,
12	CASE ID11,
13	Case ID12,
14	CASE ID58,

It is now necessary to accept the scan by pressing **Approve Compare** to send the information to MileWATCH Server. Confirm sending information to the server by answering "yes" to the following message "**Do you want to approve and send the data to the server?**":



Place the layer or half layer of the rack with the first cluster of cassettes on the R-Tracker rack plate, making sure it is correctly positioned, with the central core of the plate inside the hole of the rack layer.



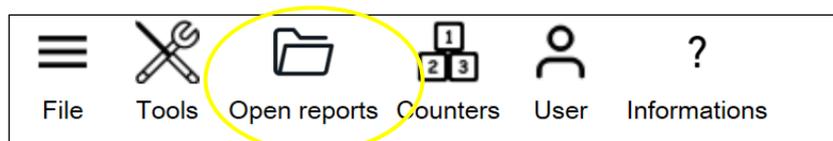
If the number of cassettes and all associated codes are identical to those obtained in the scan, the system will show the following message confirming that the cluster is complete and correct **“Compare has been passed successfully.”**



The scan report is automatically saved and it can be immediately opened by answering “yes” to the following message and to open the path where it was saved: **“The scan has been saved and reports have been generated. Do you want to see generated reports?”**



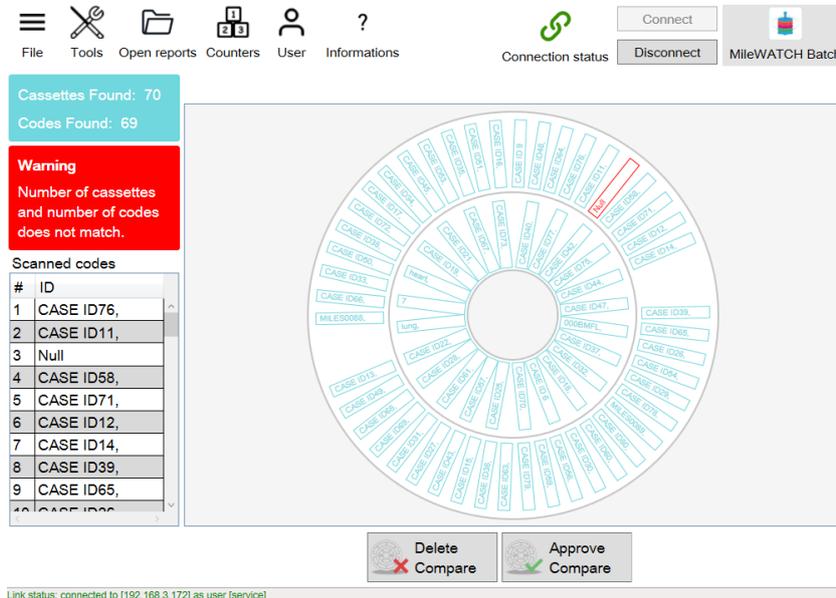
The saved report can be opened at a later stage by pressing the “Open Reports” button, at the top in the menu bar.



You can now repeat the same procedure for each cluster you want to perform a comparison on.

### 3.6.3. Comparison with cassette code not found

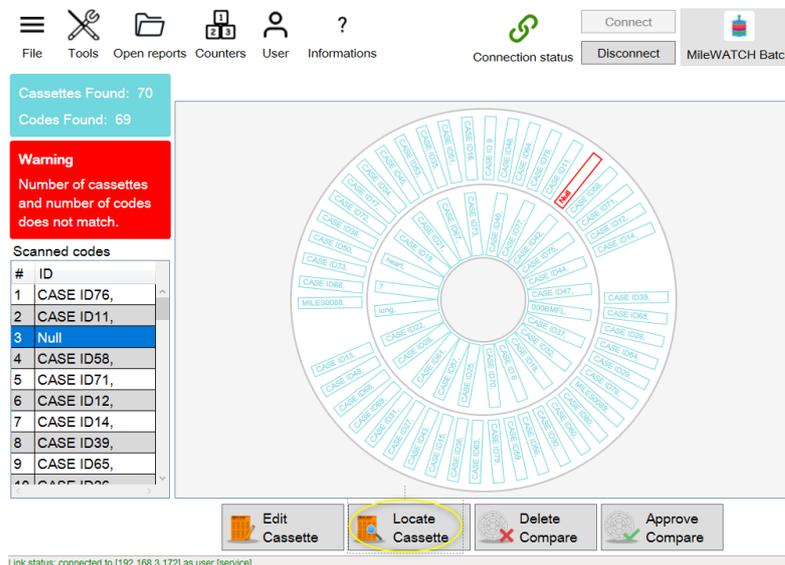
If a cassette code is not legible because it is damaged or dirty, the cassette is found but the code is not read. As shown in the following image, the cassette in the schematic representation is highlighted by a different color and the left column shows a red box with a warning message:



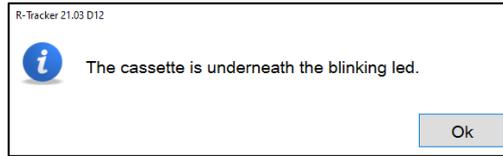
A comparison with at least one null cassette code is not acceptable as it lacks information to send to the MileWATCH Server. If you attempt to accept a scan with null cassette codes, the following message will appear: "Null cassette found. Cannot approve the scan":



In this case, you can use the Locate function of the cassette(s) in question. Select the cassette within the schematic representation and press the "Locate Cassette" button that appears below.

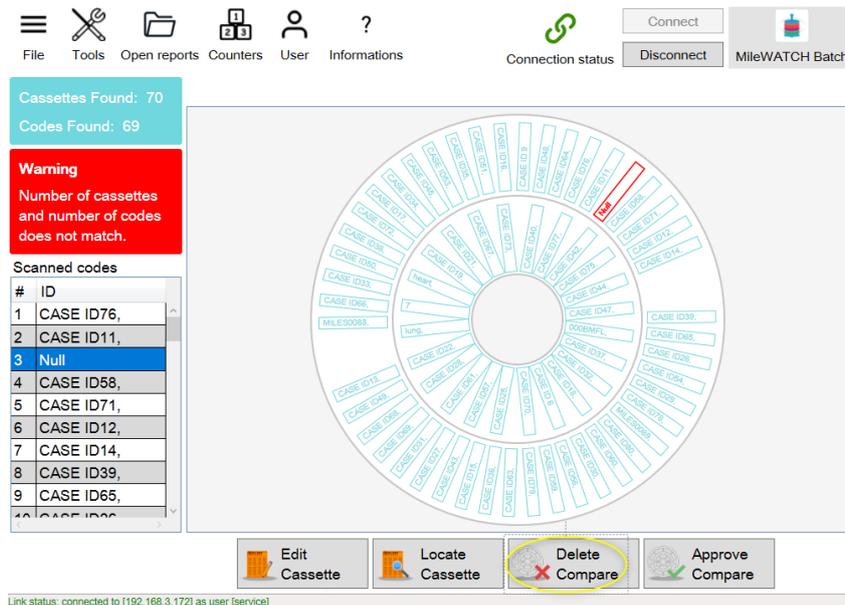


The system rotates the rack layer until the cassette to be located is underneath the laser pointer allowing it to be identified and the following message appears **“The cassette is underneath the blinking led.”**



At this point, the operator can:

- A) Repeat the scan:
  - a. Correctly reposition the cassette and repeat the scan, cancelling the one performed by pressing **Delete Compare**:



- b. Answer YES to the question **“Do you really want to delete the compared cluster? All data will be lost”**:



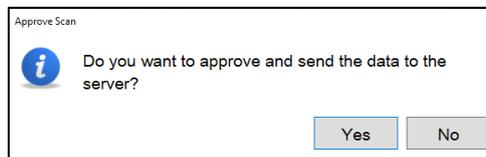
- c. Then repeat the scan by pressing **Start Compare**



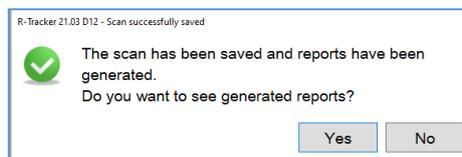
In the schematic representation, the cassette will be highlighted by a different color and the number of codes found will match the number of cassettes found, as indicated in the blue box at the top left.

The screenshot shows the R-Tracker software interface. At the top, there is a menu bar with icons for File, Tools, Open reports, Counters, User, and Informations. On the right, there are buttons for Connect, Disconnect, and MileWATCH Batch. Below the menu, a status bar shows 'Cassettes Found: 70' and 'Codes Found: 70'. A table titled 'Scanned codes' lists 14 items, with the third item, 'ABCD123', highlighted in blue. To the right of the table is a large circular schematic representing a cluster of cassettes, with various case IDs labeled around the perimeter. At the bottom of the interface, there are buttons for 'Edit Cassette', 'Locate Cassette', 'Delete Compare', and 'Approve Compare'. A small status message at the bottom left reads 'Link status: connected to [192.168.3.172] as user [service]'.

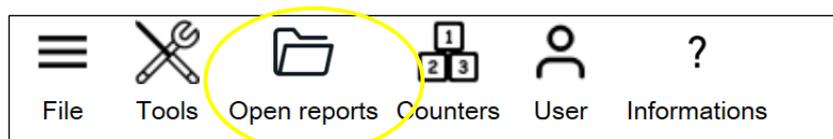
It is now possible to approve scanning of the cluster, by pressing **Approve Compare**. Confirm sending information to the server by answering “yes” to the following message “**Do you want to approve and send the data to the server?**”:



The scan report is automatically generated and saved and it can be immediately opened by answering “yes” to the following message and to open the path where it was saved: “**The scan has been saved and reports have been generated. Do you want to see generated reports?**”:

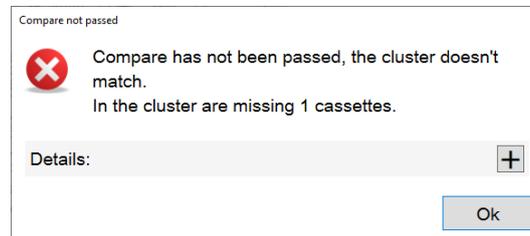


The saved report can be opened at a later stage by pressing the “Open Reports” button, at the top in the menu bar.

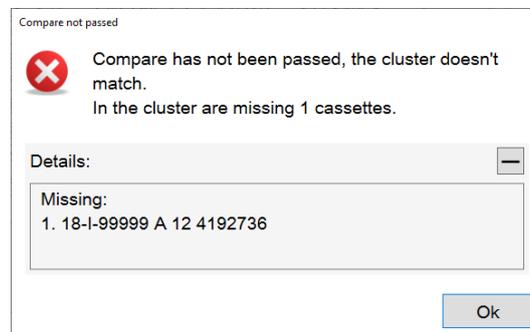


### 3.6.4. Comparison with missing cassette code

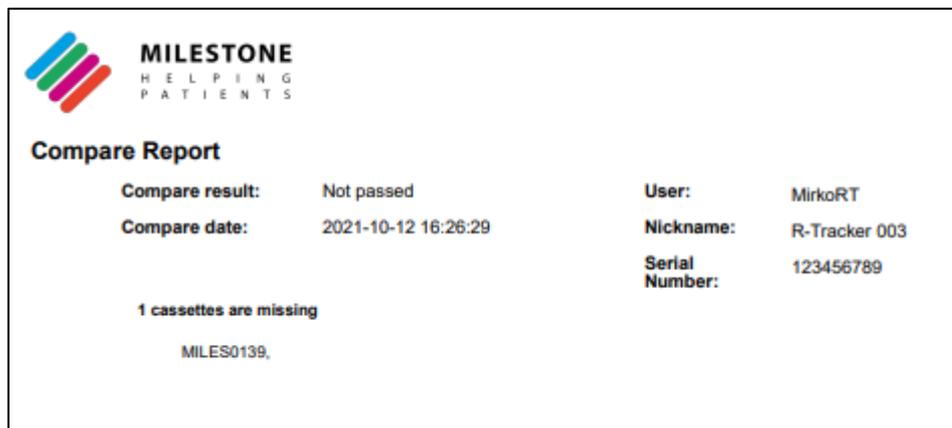
If one or more cassettes are lost, during the comparison phase, after having approved the comparison (**Approve Compare**), the following message is displayed “**Compare has not been passed, the cluster doesn't match. In the cluster are missing 1 cassette. Details:**”:



To know the code of the missing cassette(s), press the symbol +:

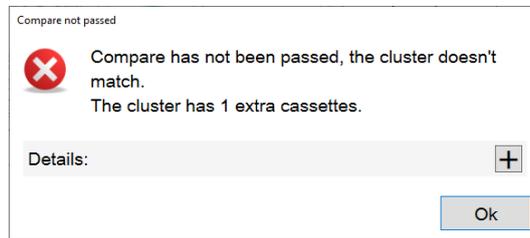


Pressing OK creates and saves the comparison report. The following is an example report:

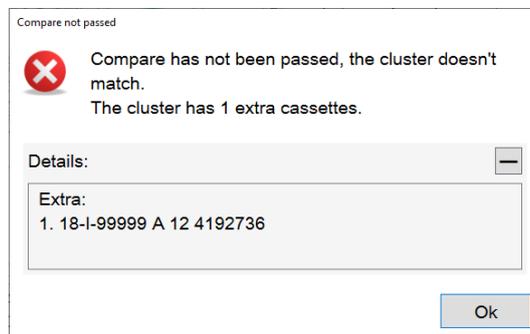


### 3.6.5. Comparison with extra cassette code

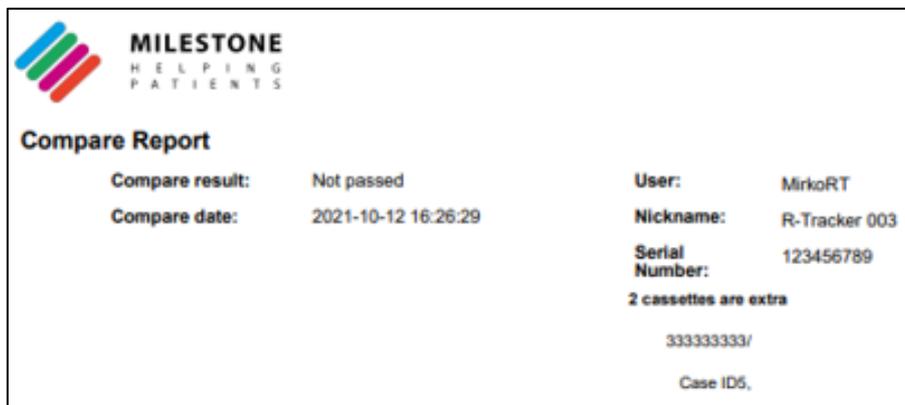
If, after a comparison, the cluster has one or more extra cassettes compared to the scan carried out before processing, after having approved the comparison (**Approve Compare**), the following message is displayed “**Compare has not been passed, the cluster doesn't match. The cluster has 1 extra cassettes. Details:**”:



To know the code of the extra cassette(s), press the symbol +:



Pressing OK creates and saves the comparison report. The following is an example report:

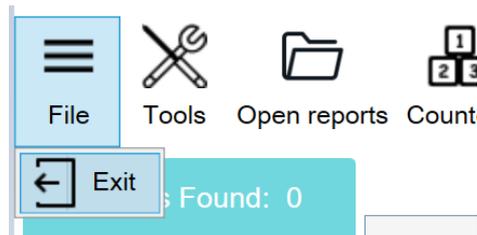


### 3.7. R-Tracker shutdown

After using R-Tracker, the instructions below must be followed to correctly switch off the unit and shut down the software.

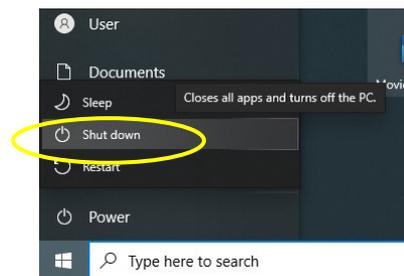
#### 3.7.1. 60700 R-Tracker (without PC and monitor) shutdown

Close the R-Tracker software by selecting File/Exit at the top left



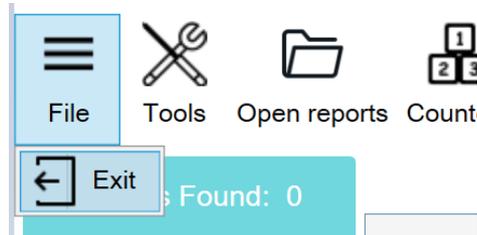
Based on the previously selected disconnection settings (see chapter 3.4.2) the software can be shut down.

Press the Start key on the PC followed by the Stop system key.



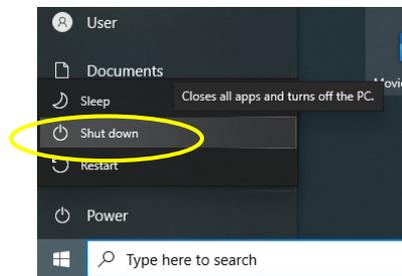
### 3.7.2. 60701 R-Tracker (with PC and monitor) shutdown

Close the R-Tracker software by selecting File/Exit at the top left



Based on the previously selected disconnection settings (see chapter 3.4.2) the software can be shut down.

Press the Start key on the PC followed by the Stop system key.



The next time you start up, you must only open the R-Tracker software (as explained in Chapter 3.2.3). The MileWATCH Server software opens automatically and remains running in background.

## 4. OPTIONAL PARTS AND SPARE PARTS



It is forbidden to use spare parts that are not supplied by Milestone.

The images shown are for illustrative purposes only.

### 4.1. Main power cable 230V~

CODE	DESCRIPTION	IMAGE
50036	Main power cable 230V~	

### 4.2. Main power cable 115V~

CODE	DESCRIPTION	IMAGE
50391	Main power cable 115V~	

### 4.3. Power supply 24Vdc 2.5A

CODE	DESCRIPTION	IMAGE
67916	Power supply 24Vdc 2.5A	

#### 4.4. Male-male USB cable

CODE	DESCRIPTION	IMAGE
330088/D	Male-male USB cable	

#### 4.5. Rack plate

CODE	DESCRIPTION	IMAGE
60763	Rack plate for fixative (With red O-Ring)	
60764	Rack plate for wax (With black O-Ring)	

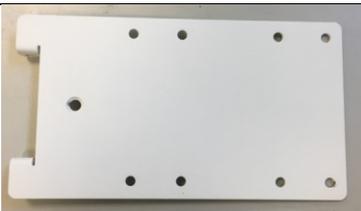
#### 4.6. Small antiscratching spatula

CODE	DESCRIPTION	IMAGE
60765	Wax scraper for cleaning Width: 37mm	

#### 4.7. USB Bar code reader 2D

CODE	DESCRIPTION	IMAGE
102011A	USB Bar code reader 2D (includes holder)  The bar code reader is set by default with country mode U.S. To change the setting, follow the procedure indicated in the manual supplied with the reader.	

#### 4.8. Enlarged monitor support bracket

CODE	DESCRIPTION	IMAGE
60782V	Enlarged bracket for monitor	

## 4.9. SUPRASPOR

CODE 109350

Peroxide-based disinfectant liquid.

The Kit consists of 6 1 L bottles, each with 6 dispensers.

For information on safety and waste disposal, see the safety data sheet and the technical data sheet supplied with the unit.

Composition: 5% hydrogen peroxide, 10% ethyl alcohol.

Expiration: 2 years.

Shelf life: 12 months from when opened.



## 4.10. Networking Web Managed Switch

The Milestone devices that can be connected to the MileWATCH Server are provided with an ethernet connection port that should be connected to the LAN (local area network) of the laboratory.

One available TCP port is necessary for connection to MileWATCH Server (one port for all devices).

A static IP address for the server is required, in the same subnet as the computers on which the MileWATCH Viewer and the MileWATCH Server are installed.

The Ethernet infrastructure which the Milestone devices are connected to, must be configured to avoid any network problem which could jeopardize the integrity of the Milestone devices.

Appropriate management of the data network must be guaranteed to avoid any risk, e.g.:

- set the loop control (anti looping)
- spanning Tree Protocol (STP) application
- broadcast detection at 1536 for all the ports
- monitoring abnormal data or issues at the layer 3 (network)

In case the network does not follow the rules reported above, Milestone strongly advises to install an Ethernet Programmable Switch before connecting the Milestone device to the network. The same advice must be respected if the Milestone devices are connected to the network to use the remote assistance function.

This is an example of a programmable switch that Milestone can supply already programmed:

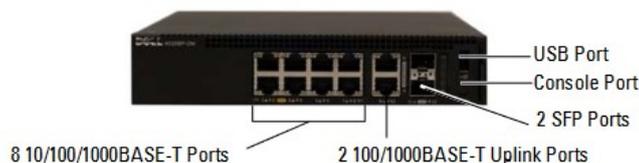
CODE	DESCRIPTION	IMAGE
62920	Networking Web Managed Switch	

The kit is composed of:

- Q.ty 1 Switch Dell EMC Networking N1108T-ON (CODE 62921)
- Q.ty 2 Ethernet screened cables 5m cat 6 (CODE 371088)
- Q.ty 1 power cable NORTH AMERICA 5-15P (M) - C13 (F) L.2m (CODE 50391)
- Q.ty 1 power cable Schuko VDE plug - C13 (F) L. 1.8m (CODE 50036)
- Q.ty 1 power cable with Italian plug CEI 23-SO - C13 (F) L. 1.8m

### 4.10.1. Description

The object may change based on availability with one with similar performance.



#### - Console Port

The console port provides serial communication capabilities, which allows communication using RS-232 serial port. The micro-USB port provides a direct connection to the switch and allows access to the CLI from a console terminal connected to the port through the provided USB cable (with a male USB micro B connector to male USB type A connector). The console port is separately configurable and can be run as an asynchronous link from 1200 baud to 115,200 baud. The Dell EMC CLI supports changing only the speed of the console port. The defaults are 115,200 baud, 8 data bits, no parity, 1 stop bit, and no flux control.

#### - USB Port

The Type-A, female USB port supports a USB 2.0-compliant flash memory drive. The Dell EMC Networking N-Series switch can read or write to a flash drive with a single partition formatted as FAT-32. Use a USB flash drive to copy switch configuration files and images between the USB flash drive and the switch. The USB flash drive may be used to move and copy (for example for backup purpose) configuration files and images from one switch to other switches in the network. The system does not support the deletion of files on USB flash drives. The USB port does not support any other type of USB device.

#### - Port and System LEDs

The front panel contains light emitting diodes (LEDs) that indicate the status of port links, power supplies, stacking, and the overall system status.

#### - Stack Master LED

When a switch within a stack is the master unit, the Stack Master LED is solid green. If the Stack Master LED is off, the stack member is not the master unit. If a switch is not part of a stack (in other words, it is a stack of one switch), the Stack Master LED is illuminated.

#### - Information Tag

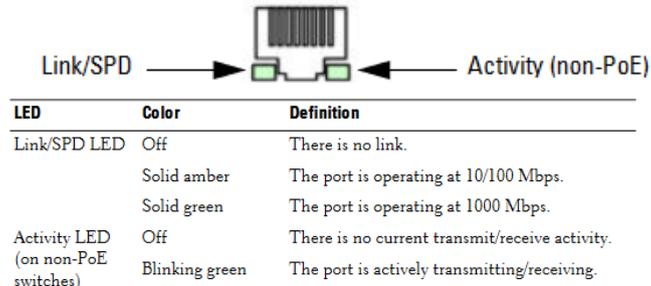
The front panel includes a slide-out label panel that contains system information, such as the Service Tag, MAC address, and so on.

#### - Thermal Shutdown

Upon reaching critical temperature, the switch will shut down for 5 minutes and then automatically power on again. This cycle will repeat for as long as the switch is at or above critical temperature.

### - Port LEDs

Each port includes two LEDs. One LED is on the left side of the port, and the second LED is on the right side of the port. This section describes the LEDs on the switch ports. Each 100/1000/10000BASE-T port has two LEDs. Figure 3-16 illustrates the 100/1000/10000BASE-T port LEDs.



### - System LEDs

The system LEDs, located on the front panel, provide information about the power supplies, thermal conditions, and diagnostics.

LED	Color	Definition
Status	Solid green	Normal operation.
	Blinking green	The switch is booting
	Solid amber	A critical system error has occurred.
	Blinking amber	A noncritical system error occurred (fan or power supply failure).
Power	Off	There is no power or the switch has experienced a power failure.
	Solid green	Power to the switch is on.
	Solid green	POST is in progress.
Master	Off	The switch is not in master mode.
	Solid green	The switch is master for the stack.
Temp	Solid green	The switch is operating below the threshold temperature.
	Solid red	The switch temperature exceeds the threshold limit, or there is a fan failure (if fan-equipped).
System Locator LED	Blinking blue	The locator LED has been activated to locate the physical switch.
	Off	The beacon LED is idle.

#### 4.10.2. Technical specifications

- The internal power supply wattage: 24W
- Thermal output: 35.72 BTU/h
- Max consumption: 10.47W
- Input: 100 - 240V~, 1-0.5A, 50-60Hz
- Dimensions (H x L x D): 1,75"(44.45mm) x 8.5"(215.9mm) x 10"(254mm)
- Weight: 3.54 lb; 1.61Kg
- 8 ports RJ45 10/100/1000Mbps half/full duplex
- 2GbE RJ45 interfaces and 2GbE SFP interfaces
- Compact 1 RU half-width form factor
- Data rates up to 176Gbps (full duplex) and a forwarding rate of up to 164Mpps
- Four 10GbE SFP+ ports for high-speed uplinks and a stacking architecture up to four units at 40Gbps
- Switch stacks up to 196 1GbE ports that can be managed from a single screen or IP address
- Working temperature from 32°F(0°C) to 113°F (45°C)
- Fanless operation at 95% relative humidity
- Storage temperature: from -40°C (-40°F) to 65°C (149°F)

- Fabric switch capability (full duplex): 24Gbps
- Forwarding speed: 18Mpps
- CPU Memory: 1GB
- Flash Memory: 1GB
- Pocket memory buffer: 1.5MB

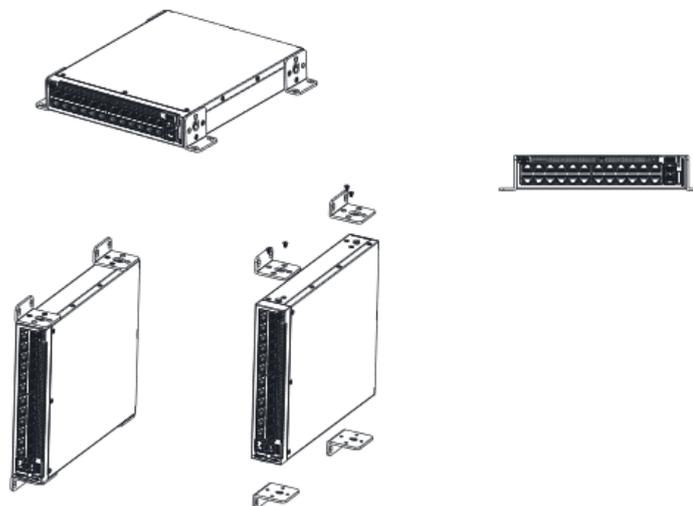
### Switch Settings

- The ETH switch is already programmed with these functions:
  - Loop control (anti looping) setting
  - Spanning Tree Protocol (STP) application
  - The 802.1d Spanning Tree is a standard level 2 switch requirement that enables bridges to automatically prevent and resolve level 2 forwarding loops.
  - Switches exchange configuration messages using specifically formatted frames, selectively enable and disable forwarding on ports.
  - Broadcast detection at 1536 for all the 8 ports
  - Monitoring abnormal data or issues at level 3 (network) of model ISO OSI

### 4.10.3. Installation instructions

To mount the switch on a wall:

- 1) Make sure that the mounting location meets the following requirements:
  - The surface of the wall must be capable of supporting the switch.
  - Allow at least 2 inches (5.1 cm) space on the sides for proper ventilation and 5 inches (12.7 cm) at the back for power cable clearance.
  - The location must be ventilated to prevent heat buildup.
- 2) Place the supplied wall-mounting bracket on one side of the switch, verifying that the mounting holes on the switch line up to the mounting holes on the wall-mounting bracket.



- 3) Connect the Ethernet cable from the Milestone device to Port 1 of the Programmable Switch, then connect the ethernet cable from Port 2 to the laboratory/hospital network.
- 4) Using a standard power cable safely earthed, connect the power cable to the main AC socket located on the rear panel. Connect the power cable to the earthed AC socket.



### **Booting the N1100-ON Series Switch**

When the power is turned on with the local terminal already connected, the switch goes through a power-on self-test (POST). POST runs every time the switch is initialized and checks hardware components to determine if the switch is fully operational before completely booting. If POST detects a critical problem, the program flow stops. If POST passes successfully, valid firmware is loaded into RAM. POST messages are displayed on the terminal and indicate test success or failure. The boot process runs for approximately 60 seconds.

You can open the Boot menu after the first part of the POST is completed.

From the Boot menu, you can perform configuration tasks such as resetting the system to default values, activating the backup image, or recovering a password. For more information about the Boot menu functions, refer to the CLI Reference Guide.

For further set up instructions, please refer to the Dell Networking N1108T-ON/N1108P-ON/N1124T-ON/N1124P-ON/N1148T-ON/N1148P-ON Switches Getting Started Guide included in the device.

## 5. MAINTENANCE, CLEANING AND DECONTAMINATION

The procedure described in this chapter must be performed on a daily basis or according to laboratory regulations.

The personnel involved in the cleaning and decontamination of R-Tracker and its optional parts (if any) must wear suitable personal protective equipment (gloves, goggles, facemask) according to standards in force.



Decontamination of the unit is mandatory due to the biohazard arising from the use of fresh or semi-fixed specimens.

Make sure the contaminated material is packed and disposed of in an approved incinerator in compliance with all federal, provincial and local government regulations.

For decontamination and cleaning do not use procedures other than those explained in this chapter.

### 5.1. R-Tracker cleaning precautions

Cleaning must be performed on a daily basis or according to laboratory regulations.

#### When required

If the scanned cassettes are immersed in a reagent, such as formalin or other fixative, eliminate the liquid that builds-up on the rack plate.

It is suggested to do this approximately every 10 scans to prevent too much liquid building up, making the procedure difficult.

In case of use with cassettes wet in wax, eliminate the wax that solidifies on the rack plate using the spatula.

It is suggested to do this approximately every 10 scans to prevent the wax accumulated on the rack plate from becoming too hard and difficult to remove.

**Do not immerse or rinse the terminal and the PC (if present), or its peripheral devices. Do not clean the terminal and the PC (if present) or its peripheral devices with strong aromatic, chlorinated, ketone, ether or ester solvents (such as ethyl acetate or methyl palmitate), sharp tools or abrasives.**



**Never immerse electrical connectors in water or other liquids.**

**Do NOT remove the side panels of the unit during the cleaning operations.**

**Before every operation disconnect the power supply.**

**Do not use direct or high-pressure water to clean the instrument.**

**Never use chlorine-based solutions at any concentration and temperature.**

**Do not use corrosive substances (acids in general) at any concentration or temperature.**

**Do not use sharp objects that can damage the coating.**



**Do not clean the areas surrounding the unit (walls, windows, flooring) with solutions indicated above.**

Milestone recommends the following products for cleaning and decontamination of R-Tracker:

- SUPRASPOR (refer to chapter 4.9)
- 70% alcohol-based reagent



**Milestone has tested the reagents listed above and will not be held liable if other types of reagents are used on a long term.**

Switch off the instrument if not used for a long period of time.

## 5.2. Operating procedure with SUPRASPOR

This general procedure applies to all units.



Perform this procedure at least once a day or according to laboratory regulations.

Always refer to the SUPRASPOR safety data sheet and technical data sheet supplied with the unit.

### SUPRASPOR'S BIOACID ACTIVITY

The balanced association of the hydrogen peroxide active principle with ethyl alcohol and non-ionic surfactant makes SUPRASPOR a disinfectant product with a broad action spectrum, including negative gram bacteria (*Escherichia*, *Pseudomonas*) and positive gram bacteria (*Staphylococcus* sp., methicilin resistant *Staphylococcus aureus* - MRSA, Enterococci), yeasts (*Candida*), fungi, viruses (HIV, HBV, HCV), mycobacteria and spores. Hydrogen peroxide is activated against a broad range of microorganisms, including bacteria, yeasts, fungi, viruses and spores. Hydrogen peroxide accelerated at 0.5% has demonstrated bactericidal and virucidal activity in 1 minute and mycobactericidal and fungicidal activity in 5 minutes. Bactericidal effectiveness and stability of hydrogen peroxide in urines has been demonstrated against a variety of pathogens associated with the healthcare area; organisms with a high catalysis activity (e.g. *S. aureus*, *S. marcescens* and *Proteus mirabilis*) have required from 30 to 60 minutes of exposure to hydrogen peroxide at 0.6% for a reduction of the cellular count of 10<sup>8</sup>, while organisms with a lower catalysis activity (e.g. *E. coli*, *Streptococci* species and *Pseudomonas* species) have required only 15 minutes of exposure. In a study of 3%, 10% and 15% of HP, to reduce the bacterial population in a spacecraft, a complete killing of 10<sup>6</sup> spores (e.g. *Bacillus* species) 10% of HP and 60 minutes of contact were necessary. A 3% concentration for 150 minutes killed 10<sup>6</sup> spores in 6 of the 7 studies made. A hydrogen peroxide solution at 10% resulted in a decrease of 10<sup>3</sup> *Bacillus atrophaeus* spores, and a reduction > 10<sup>5</sup> when tested against 13 other pathogens in 30 minutes at 20 °C.

A hydrogen peroxide solution at 3% was ineffective against VRE after 3 and 10 minutes of exposure, and only caused a reduction of 2 logs of the number of *Acanthamoeba* cysts in approximately 2 hours. A stabilised solution at 7% proved sporicidal after 6 hours of exposure, mycobactericidal (20 minutes), fungicidal (5 minutes) at complete concentration, virucidal (5 minutes) and bactericidal (3 minutes) diluted 1:16 when the carrier test was used. The HP solution at 7% was tested after 14 days of stress (in the form of carriers loaded with germs and respiratory therapy equipment) and proved sporicidal (> 7 log<sub>10</sub> of reduction in 6 hours), mycobactericidal (> 6.5 log<sub>10</sub> of reduction in 25 minutes), fungicidal (> 5 log<sub>10</sub> of reduction in 20 minutes), bactericidal (> 6 log<sub>10</sub> of reduction in 5 minutes) and virucidal (> 5 log<sub>10</sub> of reduction in 5 minutes). Synergic sporicidal effects were observed when the spores were exposed to a combination of HP (5.9% - 23.6%) and peracetic acid. Other studies demonstrated the antiviral activity of HP against rhinoviruses. The time required for the inactivation of 3 serotypes or rhinoviruses using 3% of hydrogen peroxide was 6-8 minutes.

The bioacid activity tests, according to European standards in force (published by CEN/TC 216), were conducted by a certified Test Facility operating according to GLP (Good Laboratory Practice), on the solution as is. The following table shows references to the standards, the operating conditions (clean or dirty conditions) and the results of these tests.

Activity	Strains test	Regulatory	Conditions	Reduction	Time
Bactericidal	<i>E. hirae</i> ATCC 10541 <i>P. aeruginosa</i> ATCC 15442 <i>S. aureus</i> ATCC 6538	EN 13727 (Phase 2, Step 1)	Clean	UFC/ml = 0	5 min.
Fungicide (Yeasticide)	<i>C. albicans</i> ATCC 10231	EN 13624 (Phase 2, Step 1)	Clean	UFC/ml = 0	5 min.
Mycobactericide	<i>Mycobacterium</i> <i>terrae</i> ATCC 15755 <i>Mycobacterium avium</i> ATCC 15769	EN 14348 (Phase 2, Step 1)	Clean	UFC/ml = 0	15 min.
Sporicidal	<i>Clostridium sporogenes</i> 51 CIP 7 939	AFNOR NF T 72- 190 (Phase 2, Step 2)	Clean	UFC/ml = 0	30 min.
Virucidal	Adenovirus Type 5 strain Adenoid75, ATCC VR-5 Poliovirus type 1, LSc-2ab Murine Norovirus, strain S99 Berlin	EN 14476 (Phase 2, Step 1)	Clean	UFC/ml = 0	30 min.

The product is ready for use and therefore requires no dilution.



**Switch off R-Tracker and disconnect the power cable.**

1. Insert the dispenser in the supplied bottle.
2. Remove the rack plate.
3. Clean by spraying the concerned surface and pass with a cloth.
4. For decontamination, spray the concerned surface.
5. Allow it to act for at least 5 to 30 minutes (refer to the previous table for the contact times) depending on the level you wish to reach according to the criticality of the treated device:
  - a. bactericidal and yeasticidal: 5 minutes;
  - b. fungicidal and virus inactivating: 15 minutes;
  - c. tuberculocidal and sporicidal: 30 minutes;
6. Dry if necessary.

Pay the utmost attention not to wet the parts indicated in red in the figures below with liquids.



#### **Rack plate dirty with fixation reagents**

- Remove the reagent collected in the groove of the rack plate and dispose of it appropriately.
- Rinse the rack plate under tap water.
- Clean and decontaminate the rack plate in the same way as the unit, and put it back in its seat.

#### **Rack plate dirty with wax**

- Remove the solid wax collected in the groove of the rack plate and dispose of it appropriately.
- The wax from the rack plate can also be eliminated by inserting the plate in the Milestone HistosMATE unit:



**Xylene to clean the rack is not allowed when using HistosMATE.**



Milestone has developed an automatic cleaning up system: HistosMATE.  
For further information, refer to [www.milestonemedsrl.com](http://www.milestonemedsrl.com) or contact the local dealer.

- Clean and decontaminate the rack plate in the same way as the unit, and put it back in its seat.

**PC and MONITOR**

**Switch off PC and monitor and disconnect the power cable.**

- Wipe the PC Panel with a clean cloth that has been moistened in the cleaning solution.



**Do not spray directly onto the screen, PC, the barcode reader or into the R-Tracker slots.**

**Final steps**

- Put the rack plate back in its seat.
- Before removing the gloves, wash them with soap, water and disinfectant.
- Wash your hands thoroughly.
- Take off the personal protective equipment.
- Make sure that the contaminated material is packed and disposed in an approved incinerator in compliance with all applicable national and local regulations.



**On completion of the decontamination/cleaning operations, wait at least 5 minutes before using the unit by connecting it to the power supply line.**

### 5.3. Operating procedure with 70% alcohol-based reagent

This general procedure applies to all units.



Perform this procedure at least once a day or according to laboratory regulations.

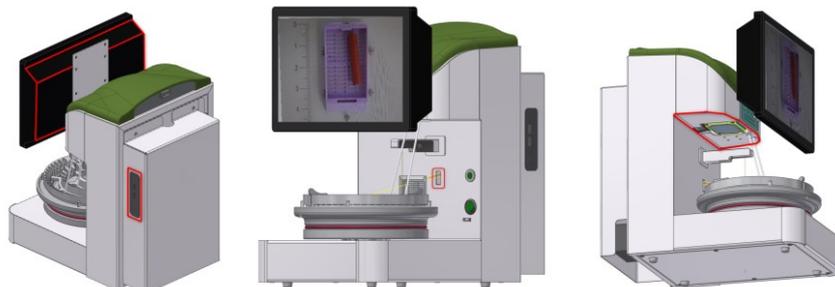
Always refer to the reagent's safety data sheet and technical data sheet.



Switch off R-Tracker and disconnect the power cable.

1. Remove the rack plate.
2. Clean by spraying the concerned surface and pass with a cloth.
3. For decontamination, spray the concerned surface.
4. Leave the reagent to act according to that set forth in the technical data sheet.
5. If necessary, rinse and dry according to that set forth in the reagent technical data sheet.

Pay the utmost attention not to wet the parts indicated in red in the figures below with liquids.



#### **Rack plate dirty with fixation reagents**

- Remove the reagent collected in the groove of the rack plate and dispose of it appropriately.
- Rinse the rack plate under tap water.
- Clean and decontaminate the rack plate in the same way as the unit, and put it back in its seat.

#### **Rack plate dirty with wax**

- Remove the solid wax collected in the groove of the rack plate and dispose of it appropriately.
- The wax from the rack plate can also be eliminated by inserting the plate in the Milestone HistosMATE unit:



Xylene to clean the rack is not allowed when using HistosMATE.



Milestone has developed an automatic cleaning up system: HistosMATE. For further information, refer to [www.milestonemedsrl.com](http://www.milestonemedsrl.com) or contact the local dealer.

- Clean and decontaminate the rack plate in the same way as the unit, and put it back in its seat.

### **PC and MONITOR**



**Switch off PC and monitor and disconnect the power cable.**

- Wipe the PC Panel with a clean cloth that has been moistened in the cleaning solution.



**Do not spray directly onto the screen, PC, the barcode reader or into the R-Tracker slots.**

### **Final steps**

- Put the rack plate back in its seat.
- Before removing the gloves, wash them with soap, water and disinfectant.
- Wash your hands thoroughly.
- Take off the personal protective equipment.
- Make sure that the contaminated material is packed and disposed in an approved incinerator in compliance with all applicable national and local regulations.



**On completion of the decontamination/cleaning operations, wait at least 5 minutes before using the unit by connecting it to the power supply line.**

## 5.4. Preventive maintenance



Annually contact your local dealer or Milestone offices directly: [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com) for how to perform maintenance and regular inspections in order to maintain R-Tracker within safe operative standards.

### 5.4.1. Customer support intervention/sending the unit to the manufacturer for repairs



**Please read the following notes carefully.**

This instrument is a device installed in a laboratory where specimens and other biological tissues are present. For your safety, therefore, you must clean it and disinfect it before coming into contact with it, and wear gloves when using this instrument.

You must wear gloves when operating the system.

If the unit needs to be returned to Milestone s.r.l. for repairs, the device must be cleaned up and decontaminated (as described in chapter 5) prior to shipment. Any units that have not been disinfected will not be accepted and you will be contacted with regard to the decontamination cost.

In accordance with international health standards, biohazard materials must be shipped in appropriate packages (risk of sanctions).

## 6. WASTE DISPOSAL

### 6.1. Disposal of electrical and electronic devices

Personnel involved must wear suitable personal protective equipment.

This instrument is a device and is usually installed in a laboratory where specimens and other biological tissues are present. For your safety, you must therefore clean and disinfect it before coming into contact with it. You must wear gloves when operating the system.

In case of return, the unit must be cleaned and disinfected before sending it back to Milestone. Non-disinfected devices will not be accepted and you will be required to pay the relative decontamination cost.

International health rules require that shipments of biohazard materials are not done in standard packages (risk of sanctions).

For further information, please contact the manufacturer: [application@milestonemedsrl.com](mailto:application@milestonemedsrl.com).

Removal of the equipment for disposal:

- 1) Switch the unit off. Disconnect the unit's socket.
- 2) Disconnect all optional parts connected to the unit, if any.
- 3) Clean and disinfect all parts of the equipment according to the manufacturer's specifications.
- 4) Remove all electric and electronic parts of the equipment.

In compliance with directive 2012/19/EC of the European Parliament of 4 July 2012 on waste electrical and electronic equipment (WEEE), the separate collection of the equipment is mandatory.

The used equipment must be returned to the distributor or you must inquire about the presence of a local system for the collection and disposal of electrical and electronic equipment.

Failure to comply with Directive 2012/19/EC may have a potential impact on the environment and human health.



This symbol indicates separate collection for electrical and electronic equipment.

If additional requirements on accident prevention and environmental protection exist in the country of operation, this instruction manual must be supplemented by appropriate instructions to ensure compliance with such requirements.

## A. ANNEX

### A.1. Web service

R-Tracker transmits the information of scans to the MileWATCH Server.

MileWATCH Server is always enabled for requests coming from a specific port on a TCP/IP connection. The web server provides three methods:

- GETCASES ():

Produces a list of all the Batch IDs, Case IDs and a list of all the File IDs available relative to each individual case.

Example of response: [{"BatchId": "2020V05V13 09:00:48 B1", "CaseId": "05112013", "FileIds": ["64"]}, {"BatchId": "2020V05V13 09:00:48 B1", "CaseId": "123", "FileIds": ["3", "99", "148", "157"]}]

- GETCASE (Case ID):

Search in the filesID system relative to a CaseID. Produces a structure containing the Case ID and a list of related File IDs.

Example of query: GETCASE (TEST)

Example of response: ["148", "151", "152", "153", "154", "155", "156"]

- GETFILE (File ID):

Download the coded file as File ID, if available.

Example of query: GETFILE (148)

Example of response: {"data": "...", "filename": "Test.XM1"}

- GETINFO (Case ID):

Produces a file that contains the common data to all curves of all machines relative to the Case ID.

Example of query: GETINFO (TEST)

Example of response: {"data": "...", "CaseID": "Test"}

- GETBATCHES ():

Produces the list of all batches in MileWATCH Server.

Example of response: [{"BatchId": "2020V05V13 09:00:48 B1", "Id": "1"}]

- GETBATCH (ID):

Produces the information on the batch, the related clusters, the cluster information and the related cassettes.

Example of query: GETBATCH (1)

Example of response: [{"BatchId": "2020V05V13 09:00:48 B1", "Clusters": [{"Cases": ["1", "2"], "ClusterID": "2020V05V13 09:00:06 C1"}, {"Cases": ["3", "4"], "ClusterID": "2020V05V13 09:00:15 C2"}], "Creator": "Userbatch"}]

The following is an example of how to use the service:

Search new files every 30 minutes and download them:

1. Query MileWATCH with the command GETCASES() to obtain the list of CaseIDs available and relative FileIDs;
2. For each FileID obtained which was not downloaded previously in the LIS, query MileWATCH with the command GETFILE(FileID) to download the file from MileWATCH;
3. Store the downloaded files in the LIS classified by CaseID and process them as needed;
4. Repeat the sequence every 30 minutes.

## B. ANNEX

### B.1. TROUBLESHOOTING



Refer to the following operator manual for any problems related to use of the MileWATCH pack: MM130-MileWATCH

The following table shows some issues that can occur during use of the R-Tracker and the relative solutions.

TITLE	IMAGE	DESCRIPTION	WHAT TO DO
Disconnected from R-Tracker		The R-Tracker unit is not connected.	Check the connection between the R-Tracker instrument and the computer
Rotation time out		Rotation time out	Check the connection between the R-Tracker instrument and the computer. If the problem persists, call Customer support.
The server is not available anymore		MileWATCH Server is no longer available.	Check the network connection. Check that MileWATCH Server is running.
Please check your connection parameters and try again. Please check your license expiration.		The connection parameters are not correct or the license has expired.	Wait 1 minute and try to connect again. If it does not connect after 1 minute, check the connection parameters with MileWATCH Server. Check when the MileWATCH Server license expires.







**MILESTONE**  
H E L P I N G  
P A T I E N T S

**Milestone Srl** 🏢

Via Fatebenefratelli, 1/5 - 24010 Sorisole (BG) - Italy  
Tel +39 035 4128264 - Fax +39 035 575498

[marketing@milestonemed srl.com](mailto:marketing@milestonemed srl.com)  
[www.milestonemed.com](http://www.milestonemed.com)