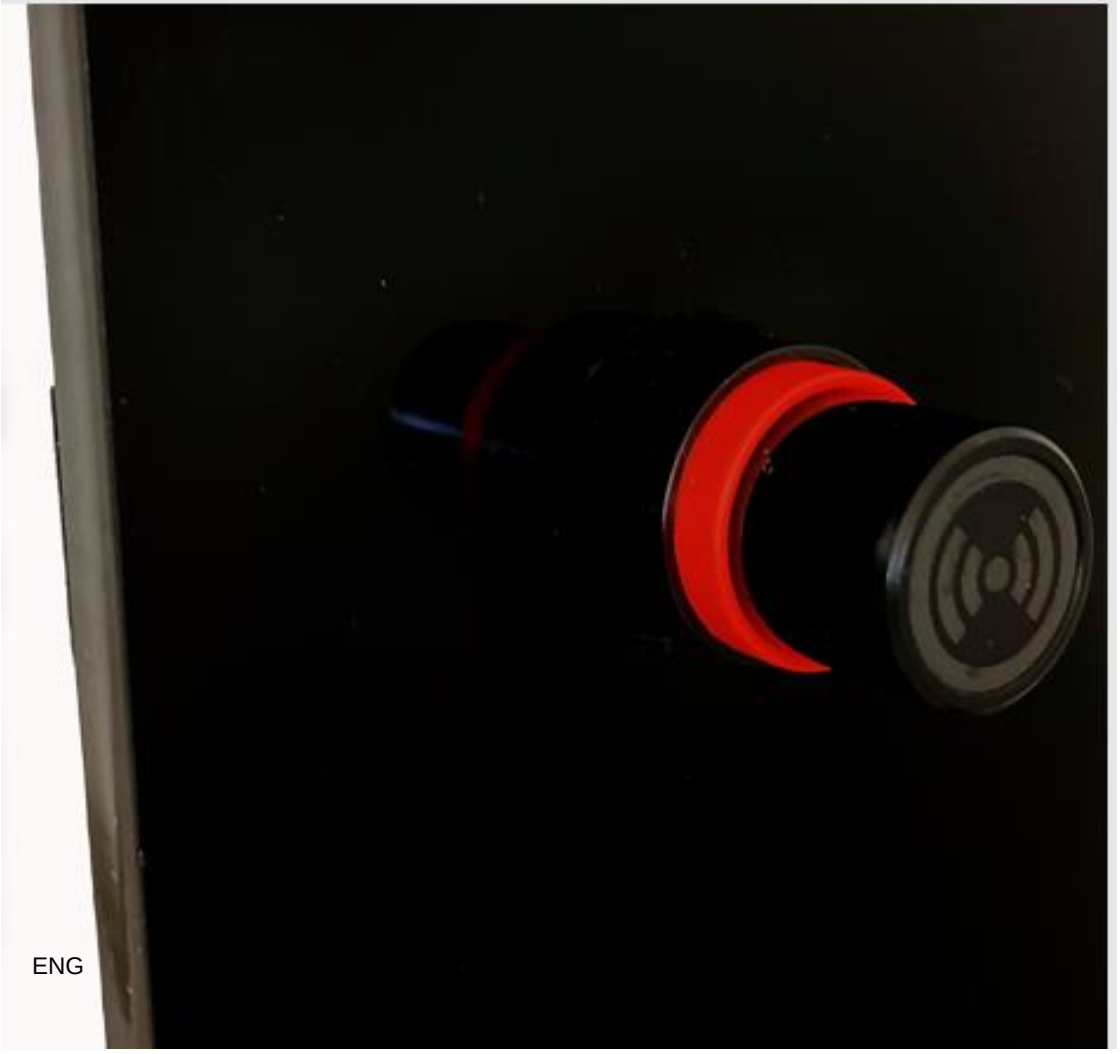
OTS®20 Batteryless

USER MANUAL

V1.0



ENG

OTS®20 Batteryless

USER MANUAL

V1.0

This document is just informative and does not constitute a contract.

The information may have undergone changes that have not been added to this document yet, therefore, if you have any doubts, please contact Ojmar to receive up-to-date information.

CONTENTS

0. GENERAL DESCRIPTION

0.1 GENERAL DESCRIPTION

OTS 20 Batteryless is an electronic lock system for use mainly in sports, school and leisure facilities. The full system is made up of the following components:

OTS 20 Batteryless Lock (See Section 1).
Key kit (See Section 1.6).
Power supply for maintenance (See Section 2).
Portable programmer (See Section 2).
Infoterminal (See Section 3).
Management software (See Section 4).

0.2 SYMBOLS USED IN THE USER MANUAL

NOTE: The notes are used to highlight information that is of particular importance or related interest that must be remembered.

EXAMPLE: The examples are used to show a case study that may provide users with a better understanding of the explanation.

WARNING: The warning boxes highlight the importance of the information described.

0.3 GENERAL WARNINGS

Please follow the rules below to ensure the correct working order of our product in your facility:

WARNING: The product purchased must be installed and used according to the technical operating conditions described in the corresponding manual.

WARNING: Where not specifically indicated, customers are responsible for the appropriate installation or use of the application.

WARNING: On receiving the material, please inspect the packaging and the material for any signs of damage. Also check that the shipment is complete (accessories, documents, etc.).

WARNING: If the packaging has been damaged during transport or you suspect that it may have been damaged or that it could be faulty, the material must not be used. Please contact us in this case.

WARNING: Our products must be installed and handled by authorised personnel. More specifically, the electrical connections must be made by qualified specialists.

WARNING: It is forbidden to make any replacements or remove the protective covers.

WARNING: Do not attempt to repair any material in the event of a fault or damage and then re-start it. You must contact us in these cases.

WARNING: No responsibility will be accepted for damage caused as a result of misuse.

WARNING: In accordance with European Directive 2002/96/EC, please deposit the OTS 20 Batteryless lock and its associated components at your local e-waste recycling facility. Do not deposit them with the normal household waste.

WARNING: Recycle the containers in an 20 Batterylessnmentally friendly way.

0.3.1 Regulatory information USA

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

0.3.2 Class B device notice

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful

interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

0.3.3 RF exposure safety

This product is a radio transmitter and receiver. The antenna must be installed and operated with minimum distance of 20 cm between the radiator and your body.

It is designed not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

0.4 TECHNICAL SUPPORT

Should you wish to make any enquiries on our products, please contact the Ojmar technical department:

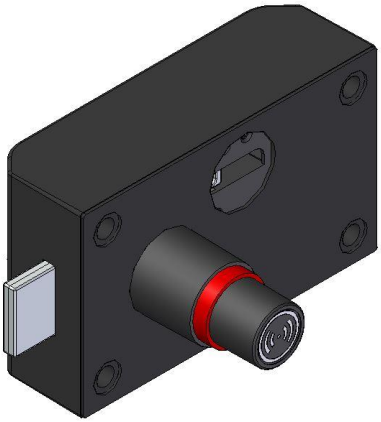
Telephone: +34 943 748 484
Fax: +34 943 748 490
Website:www.ojmar.com

1. OTS LOCKS

1.1 GENERAL DESCRIPTION

Ojmar OTS locks use RFID technology. This technology consists in interaction between a transmitter (key) and a receiver (lock). This system replaces the traditional mechanical key and cylinder.

Our locks meet all anchorage and measurement standards and, therefore, can replace old lock systems without having to modify cabinets or lockers.

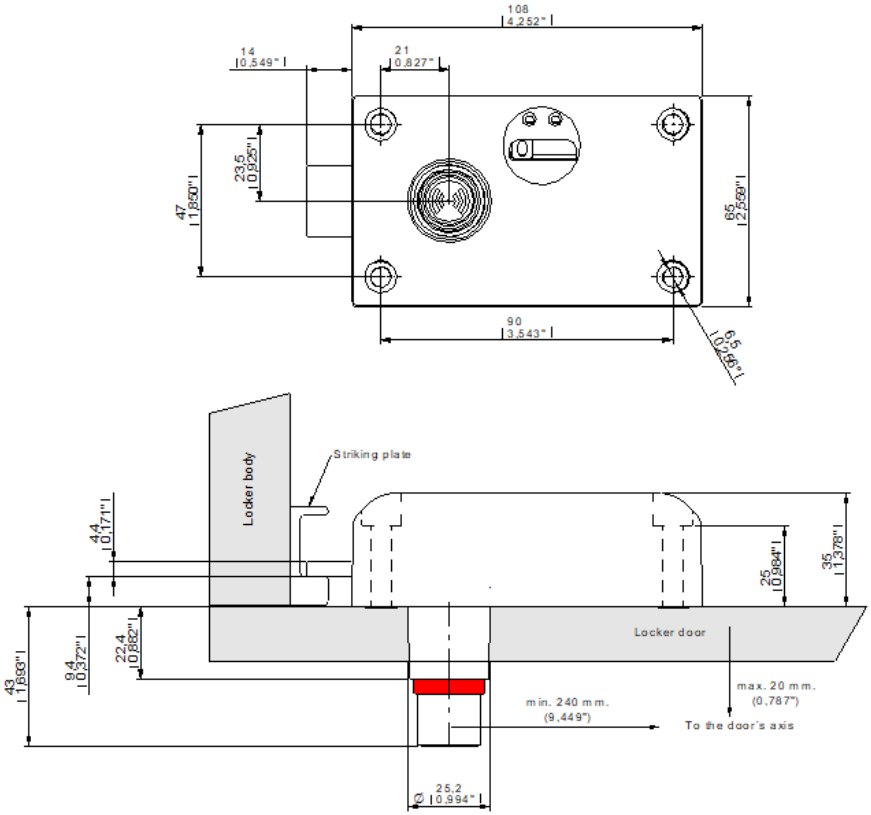


1.2 MEASUREMENTS AND FEATURES

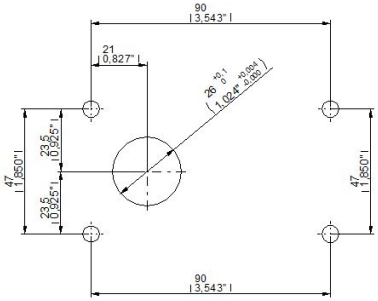
The OTS 20 Batteryless proximity lock includes a fully autonomous power supply system and therefore does not require any type of wiring. The OTS 20 Batteryless system in particular is the evolution and ecological option of the locks of the OTS family, as it is one of reduced dimensions, I undertake less material. In addition, it has a system that works without batteries, feeding itself autonomously that obtains the necessary energy for its functions through the mechanical operation of the knob.

1.2.1 Technical Drawings

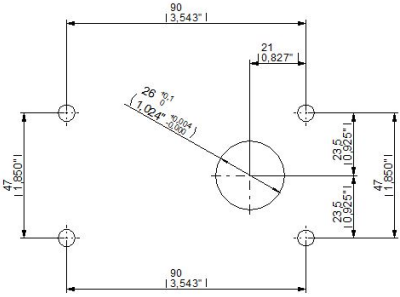
The measurements and locations of the mounting points are shown in the figures below:



POSITION OR RIGHT LOCK FIXTURE HOLES



POSITION OF LEFT LOCK FIXTURE LOCKS



MAIN FEATURES	Technology	MIFARE® (DESFire EV1 & EV2, Ultralight, Ultralight C, Classic1K/4K 4B and 7B UID – ISO/IEC 14443)
	Programmable in dedicated or free mode	
	Master and service key	
	NFC communications between programmer and lock	
	Integration with other systems	
TECHNICAL SPECIFICATIONS	Functional temperature range	0º to +42º (interiors)
	Cycles	60.000 cycles
	Approximate weight	223 g
	Availability	Right and left
MECHANICAL REQUIREMENTS	Humidity	UNE-EN ISO 16750-4 / UNE-EN 60068-2-38 (RH 96%)
	Closing resistance	DIN 4547-2 Class C
	Protection against solid and liquid bodies	IP52
	Protection against mechanical impact	IK09
APPROXIMATE MEASUREMENTS	Exterior	108 x 65 x 35 mm
OPTIONAL ACCESSORIES	NFC portable programmer	
	PC software	
	Desktop card reader	

1.3 OTS LOCK FOR METAL DOORS

Due to the interferences between the metal and the RFID communications, a "shield" must be installed in the metal door of the locker for the lock to work properly.

NOTE: To ensure correct operation of the various supports available on the market (keys, bracelets and keyfobs), these must be send to Ojmar for validation.

1.3.1 Mounting the Safety Shield

1. Clean the surface of the door and make sure it is completely dry (1).

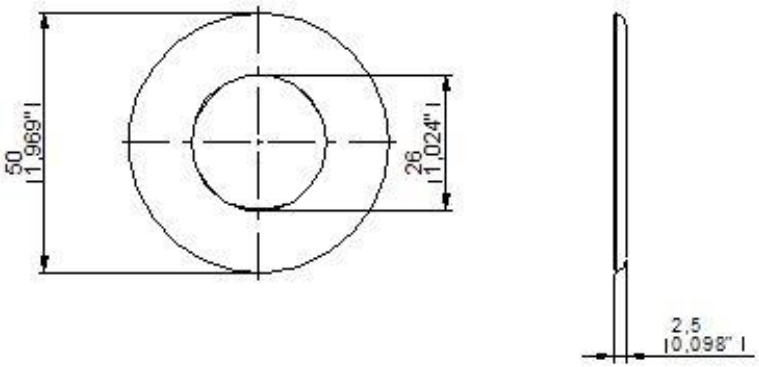
NOTE: Install the lock before mounting the shield.

2. Remove the adhesive paper from the shield.

3. Place the shield on the door, making sure that the lock knob coincides with the hole in the shield.

4. Press the shield against the door so that it adheres properly.

1.3.2 Shield Measurements

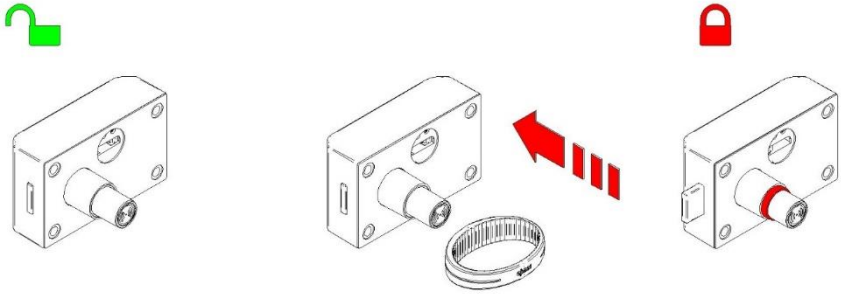


1.4 OPENING AND CLOSURE

The lock opening and closure process is as follows:

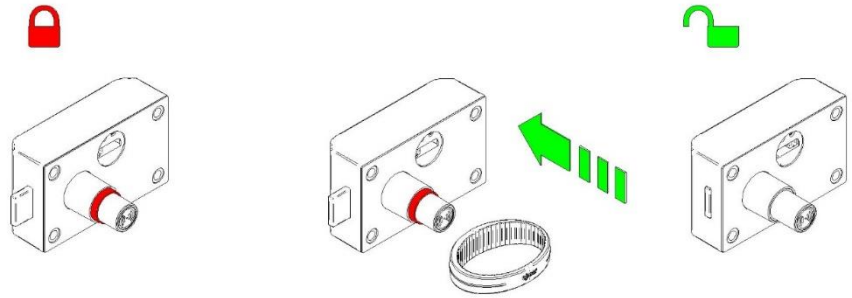
1.4.1 Closure

1. Bring the key towards the knob of the open lock and press the knob it inwards.
2. Press the knob in fully. The lock is then automatically closed, protruding the closed door indicator (red color).



1.4.2 Opening

1. Bring the key towards the knob of the lock and press it inwards.
2. If the key matches the lock (and has no restriction applied: (Expired key, etc.) it will automatically unlock. The knob will move outwards fully.



1.5 LOCK TYPES

OTS locks can be configured in two different ways:

Free.

Dedicated.

These locks are programmed using the keys previously programmed with the Ojmar Management Software (See Section 4) or using the Ojmar NFC Portable Programmer (See Section 2.2).

NOTE: The Ojmar NFC programmer can read events for the locks and initialise only the locks defined in Section 4.8.

NOTE: If you have not purchased the Management software module or the Ojmar NFC programmer, please ask us about programming them.

1.5.1 Dedicated Lock

The "dedicated" operating mode allows for a certain member number to be assigned to a lock.

EXAMPLE: A lock is reserved for a gym member and only he/she may use it.

Only the dedicated keys associated to the lock will have access to it.

As many keys as required can be created for each dedicated lock and they may all have access at the same time.

EXAMPLE: A member with two dedicated keys may close a lock with one key and open the same lock with the other key.

1.5.2 Free lock

The "Free" operating mode allows for access to the lock by any programmed key of this type.

This works as follows:

A free key allows for any free lock that is not in use at the time to be opened and closed.

As soon as the lock is in use, the key cannot be used in any other free lock until the first one has been freed.

1.6 KEY TYPES

There are a total of 12 types of different keys for OTS 20 Batteryless lock.

1.6.1 Dedicated Key

It can be used only in dedicated locks that have been programmed with the same number as the key. It can be configured to use up to 6 locks of the same type.

1.6.2 Free Key

This can be used in any free lock that is not in use. It can be configured to use up to 3 locks of the same type.

EXAMPLE: A member with one key programmed for 3 locks can use up to 3 lockers at the same time.

1.6.3 Multifunction Key

These can be configured to use up to 3 dedicated locks and up to 3 free unoccupied locks.

1.6.4 Master Key

This is used to open any type of lock. It is used to open the lock. Under no circumstance can it close it.

NOTE: Once the lock is open, its memory is deleted and is becomes free for another user.

NOTE: Just one master key (in keyring format) is supplied for each facility. Should you require an extra master key, please contact Ojmar.

NOTE: For use exclusively by authorised personnel of the facility.

1.6.5 Service Key

This is used to open and close any type of lock. This key does not modify the lock. When closed, it will remain in use by the key previously assigned to it.

NOTE: When an occupied lock is opened, its memory is not modified. It can only be continued to be used by the user card it has closed.

NOTE: If a free lock is closed with the service key, it can only be opened again with the service or master key

NOTE: If a dedicated lock is closed with the service key, it can be opened with the assigned dedicated user card.

NOTE: Just one service key (in keyring format) is supplied for each facility. Should you require an extra service key, please contact Ojmar.

NOTE: For use exclusively by authorised personnel of the facility.

1.6.6 Master Subgroup Key

This is used to open and close any type of lock of a subgroup (See Section 4.5 for further information on subgroups).

If the lock is:

In use: It can open and close it without deleting any stored key data (like a service key).

Free: It can close it, leaving it in use (all free locks in a subgroup can be used).

NOTE: For use exclusively by authorised personnel of the facility.

1.6.7 Cancellation Key

This key can cancel another key, preventing it from opening or closing any lock. It must be previously programmed. To do so:

Save the key number to be blocked in the cancellation key.

Use the cancellation key in all locks where use of the blocked key is not to be permitted.

NOTE: This key can be used in any lock type.

NOTE: For use exclusively by authorised personnel of the facility.

1.6.8 Set-up Key

This initialises previously unused locks with the same type of set-up key. The following can be assigned:

Lock number.
Operating type.

A set-up key can initialise several successive locks, assigning them consecutive numbers.

NOTE: To perform this action, a key must be created for each lock type (one for free locks and another for dedicated locks).

NOTE: For use exclusively by authorised personnel of the facility.

1.6.9 Event Collection Key

This key collects the events (Used keys, event order, etc.) stored in the locks. See Section 4.8 to extract and consult the information stored on the key.

NOTE: This key can be used on free and dedicated locks.

NOTE: For use exclusively by authorised personnel of the facility.

1.6.10 Reset Key

This key delete all of the information from the lock and resets it to its factory configuration. Therefore, a set-up key must be used to restart it.

NOTE: Just one deletion key is supplied for each facility. Should you require an extra deletion key, please contact Ojmar.

NOTE: For use exclusively by authorised personnel of the facility.

1.6.11 Test Key

This key test the correct mechanical working order of a lock when it is factory configured or not initialised.

NOTE: This key only opens and closes locks. Nothing is configured on them. It only works when the lock is factory configured or not initialised. They are often exclusively used by installation fitters to check that the locks open and close correctly. They are of no subsequent use.

NOTE: Just one test key is supplied for each facility. Should you require an extra test key, please contact Ojmar.

NOTE: For use exclusively by authorised personnel of the facility.

1.7 SOFTWARE CODES

Each action taken on a lock has a description. This information will be recorded on the event keys (See Section 4.13.1) when used together with the locks.

The full list of codes is given below.

DESCRIPTION	DESCRIPTION
Client opening	Test from programmer
Client closure	Master subgroup key opening
Occupant key	Cancellation key
Master key opening	Initialisation from programmer
Key rejected: Different installation number	Initialisation from key
Key rejected: Checksum incorrect	Opening from programmer
Key rejected: Key not valid or not defined	Service key opening
Key rejected: Key in use	Mechanical fault
Events read from programmer	Key rejected: Key cancelled on blacklist
Events read from key	Master subgroup key closure
No event recorded	Service key closure
Update programmer	Memory deleted with key

2. PORTABLE PROGRAMMER

2.1 GENERAL DESCRIPTION

The portable programmers allow for the keys supplied by Ojmar to be read and recorded.

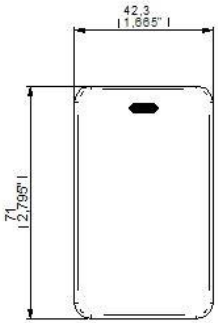
OJMAR NFC PROGRAMMER

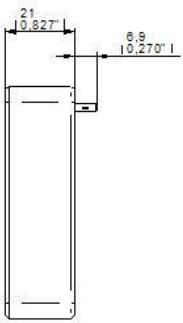
DESKTOP READER

We have two programmers, each with different features. Both models are connected to the PC via a USB port. The features are indicated below.

NOTE: OJMAR NFC programmer needs a power supply tool to be used.

2.1.1 Power supply





In order to use the programmer, the locker must be in open mode, as it requires the lock to be connected to the power supply.

Open the locker if it is locked with a user or service key.

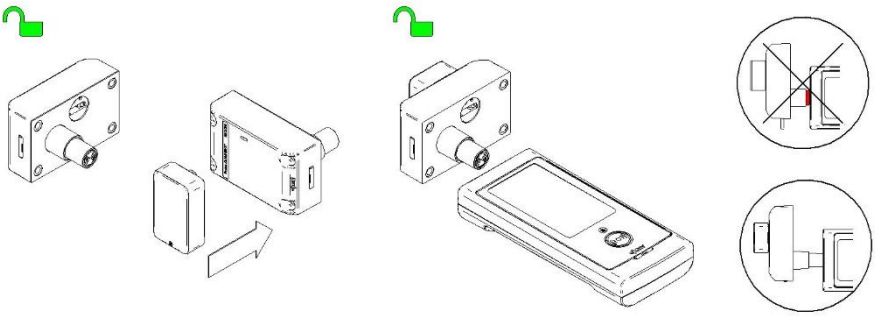
• ATTENTION: When the USB hole on the back of the lock gets wet, dry it completely with a soft and clean cloth. If the device got wet, you must dry the inside of the charging port before inserting a power connector to power the device. If the charging port is not completely dry, the device may not work properly. For example, the power supply tool may overheat.

Insert the power supply through the USB C slot on the backside of the lock.

Once the tool has been inserted, use the Programmer

For OTS 20 Batteryless lock, it is not necessary to press the knob with the Programmer, it is enough to bring it close and touch it.

Remove the power supply tool when you have finished using the programmer.



2.2 OJMAR NFC MODEL PROGRAMMER

The Ojmar NFC programmer can function autonomously or using the OTS Management Software (See Section 4). When functioning autonomously, it can record free keys (See Section 1.5.2) and when functioning using the Management Software it can:

Read information from keys.

Write set-up, user, cancellation and maintenance keys.

Test locks.

Read events from locks.

Initialise locks previously configured using the Software.

Update the lock Firmware.

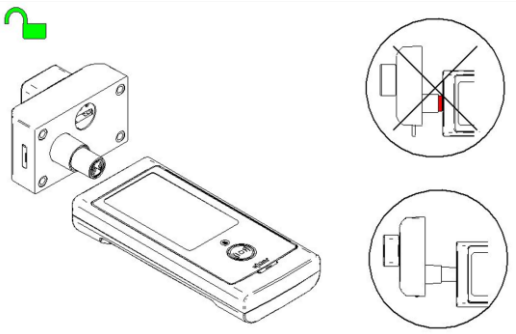
FRONT VIEW RIGHT-HAND SIDE VIEW FRONT VIEW

1. Touch screen.
2. Key reading zone: The keys must be placed in this zone so they can be read/recorded by the programmer.
3. Screen On/Off.
   - On: Press the button quickly (a beep will be heard).
   - Off: Keep the button pressed down for 4 seconds.
4. PC Connection: USB socket used to connect the programmer to the Computer to download data collected by it.

NOTE: A USB cable is supplied with the programmer.

5. Jack Connection.
6. NFC Reader: Allows for the programmer to connect to the lock. To do so:
   - Bring the programmer reader towards the knob of the lock and press it inwards.

NOTE: Not need to push in



FEATURES

MAIN FEATURES	Operations in autonomous mode or with SW	
	Autonomous mode	Write user cards/Read all types of OTS cards: Mifare Classic 1k/4k (4B or 7B), Mifare Desfire EV1 2K, 4K, 8K, Mifare Ultralight and compatible with Ultralight C
		Perform a test to check the configuration of the lock
	User mode with SW	Write/Read all types of OTS cards: Mifare Classic 1k/4k (4B or 7B), Mifare Desfire EV1 2K, 4K, 8K, Mifare Ultralight and compatible with Ultralight C
		Perform a test to check the configuration of the lock
		Load the required configuration in the lock
		Update the configuration in the lock
		Download the events to have occurred in the lock
		Update lock firmware via NFC
TECHNICAL SPECIFICATIONS	Power supply	Batteries rechargeable by USB (5,000 mAh)
		Mains charging: Use 5v -1A charger
	Functional temperature range	-10º to +50º (without condensation)
	Approximate weight	380g
APPROXIMATE MEASUREMENTS	External (length x width x height)	202 x 89 x 39 mm

2.2.1 Main Screen

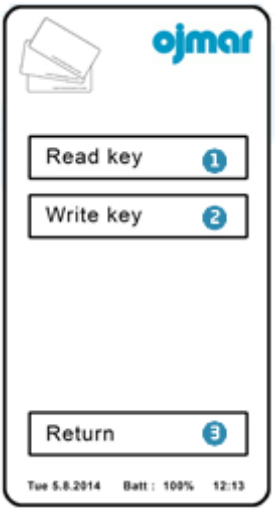
The main screen of the Ojmar NFC programmer displays the following information:

1. Operations with keys: See Section 2.2.2.
2. Operations with locks: See Section 2.2.3.
3. Configuration: See Section 2.2.4.
4. Date and time: Displays the date and time of the programmer.
5. Battery level: Displays the programmer battery level.

NOTE: Do not switch the programmer off during charging

2.2.2 Operations with Keys

This screen displays the following buttons:



1. Read key: Reads the information associated to the key. The following screen is displayed when this button is pressed:

By placing the key over the key reading zone of the programmer, the information associated to it is displayed.

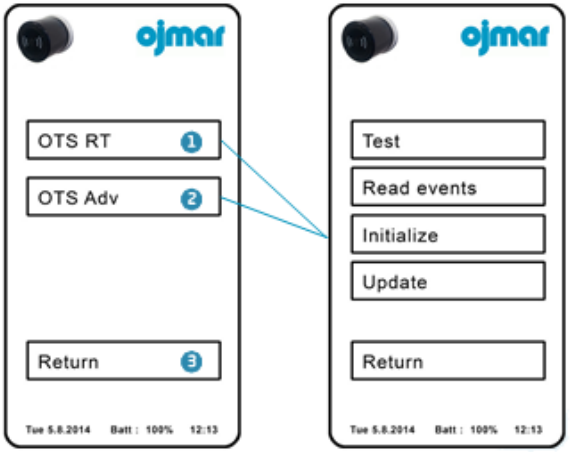
EXAMPLE: In this case, a service key has been read and the reading is correct.

2. Write key: Records the configuration recorded in the programmer on the key. A "Free" type key is recorded by default for 1 lock and within Subgroup 0

3. Back: Returns to the main menu.

2.2.3 Operations with Locks

This screen displays the following buttons:



1. Displays the following menu for OTS 20 Batteryless lock:

   - Test: Performs a test on the lock and displays the results on the screen.

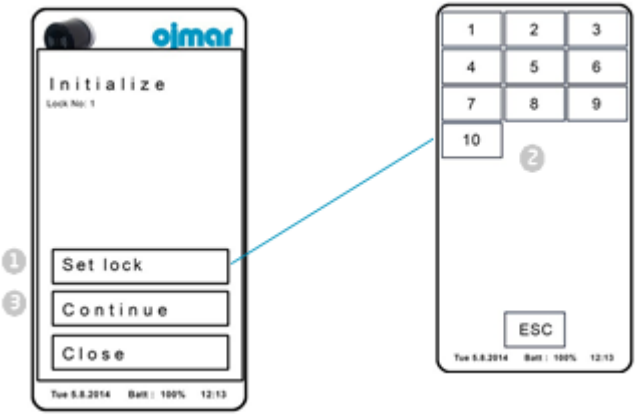
NOTE: The test must be performed in line with Step 6 of Section 2.3 of this manual.

   - Read events: Reads the events recorded on the lock. These events may be subsequently viewed from the Events screen of the OTS Management Software (See Section 4.8.1).
   - Initialise: This menu option allows for locks to be initialised.

NOTE: The locks must be previously loaded in the programmer (See Point (5) of Section 4.6.

To do so:

1. Press "Set lded".
2. Select a lock previously loaded in the NFC programmer.
3. Press "Continue" and connect the programmer to the lock as indicated in Step (6) of Section 2.3.



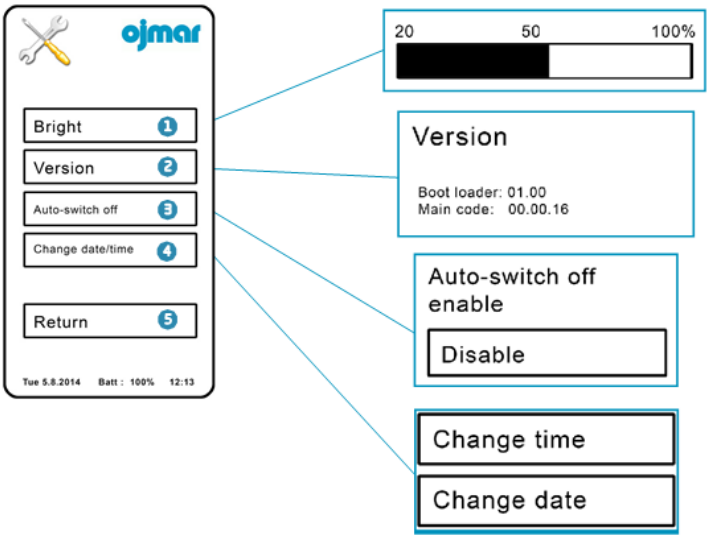
   - Update: This option allows for the lock memory to be updated when a property has been modified. To do so:

     1. Load the locks to be modified into the Ojmar NFC programmer (See Point 5 of Section 4.6).
     2. Update the locks in line with Step 6 of Section 2.2.

4. Back: Returns to the main menu.

2.2.4 Configuration

This screen displays the following buttons:



1. Brightness: Allows for the level of brightness of the screen to be adjusted.
2. Version: Displays the version number of the software installed in the programmer.
3. Auto-off: On pressing this button, the programmer screen will switch off automatically after approximately 2 minutes of inactivity.
4. Change the date/time: This is used to change the date and time of the programmer.
5. Back: Returns to the main menu.

2.3 DESKTOP READER

The desktop reader allows reading and recording keys using the Ojmar OTS Management Software.

NOTE: The desktop reader cannot be directly connected to the locks. It must be connected to the computer via the USB port and the OTS Management Software used to programme the keys.

FEATURES

MAIN FEATURES	Operations with PC only	
	Write/Read all types of OTS cards: Mifare Classic 1k/4k (4B or 7B), Mifare Desfire EV1 2K, 4K, 8K, Mifare Ultralight, compatible with Ultralight C and Technogym	
TECHNICAL SPECIFICATIONS	Power supply	Powered by PC via USB
	Functional temperature range	-10º to +50º (without condensation)
	Approximate weight	83g
APPROXIMATE MEASUREMENTS	External (length x width x height)	116 x 67 x 14 mm

2.4 INSTALLING WINDOWS DRIVERS FOR THE DESKTOP READER

The controllers supplied are compatible with the following operating systems:

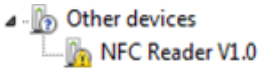
Windows XP (32 and 64 bit).
Windows Vista (32 and 64 bit).
Windows 7 (32 and 64 bit).

NOTE: All screens shown below correspond to Windows 7. If you have another Operating System, these may be slightly different.

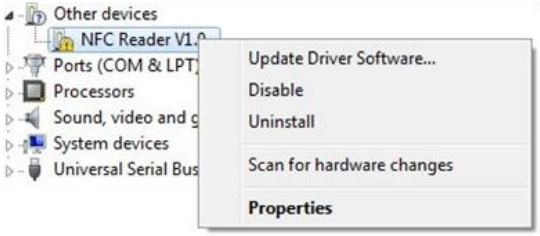
1. Connect the programmer to the USB port on your PC.
2. Windows will detect the programmer and will display the following messages:

3. Windows cannot automatically install the Windows controller. It must be installed manually.
4. To do so, access the Windows "Device manager". This option is located in the "Control Panel".

5. Locate the following error on the list:



6. Right-click on the conflicting device and select "Update driver software":

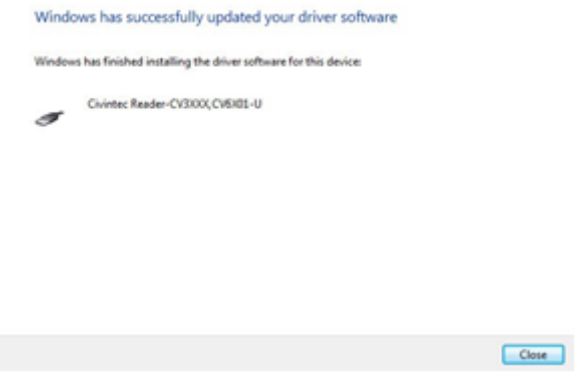


7. Select "Browse my computer for driver software".

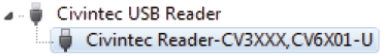
8. Click on "Browse" and locate the "CnReader Drivers" folder on the CD supplied by Ojmar.

9. Confirm controller installation by clicking on the "Install" button.

10. The following screen will be displayed if the installation is correct.



NOTE: If the following image is displayed in the Device manager, this means that the controller has been installed correctly.



2.5 WINDOWS CONTROLLER INSTALLATION FOR OJMAR NFC PROGRAMMER

The controllers supplied are compatible with the following operating systems:

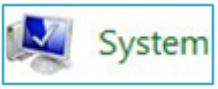
Windows 2000.
Windows XP (32 and 64 bit).
Windows Vista (32 and 64 bit).
Windows 7 (32 and 64 bit).

NOTE: All screens shown below correspond to Windows 7. If you have another Operating System, these may be slightly different.

NOTE: Install the controller before connecting the programmer to the PC.

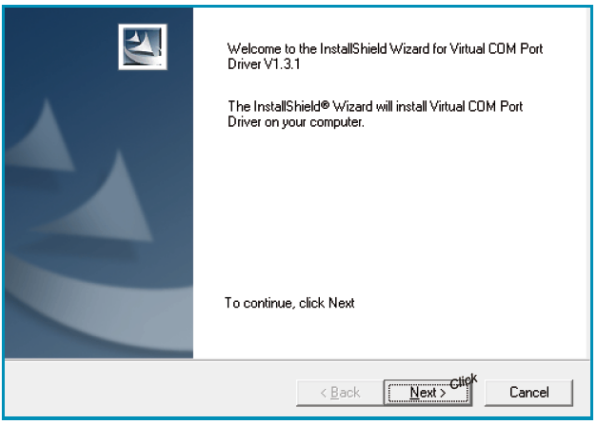
1. Locate the "Drivers NFC" folder on the CD supplied by Ojmar.
2. There are two files in this folder. One for 32-bit Operating Systems (VCP_V1.3.1_Setup) and another for 64-bit (VCP_V1.3.1_Setup_x64). Double click on the file corresponding to your operating system.

NOTE: Click on the Windows "System" icon to find out whether your Operating System is 32 or 64.bit. This option is located in the "Control Panel".



Among all of the options displayed, there is one called "System type". This will indicate "32-bit operating system" or "64-bit operating system".

3. The installation program will then begin. Click on "Next".

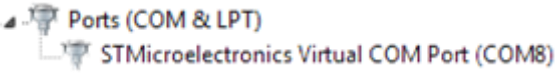


4. Once installation is complete, click on "Finish".

5. The following screen will be displayed if the installation is correct.

6. Connect the programmer to the USB port on your PC.

NOTE: If the following image is displayed in the Device manager, this means that the controller has been installed correctly.



3. INFOTERMINAL

3.1 INFOTERMINAL

The Ojmar Infoterminal provides users information about the locker number or numbers assigned or occupied by a key. It is wall mounted to give users easy access to key information.

The Infoterminal unit includes:

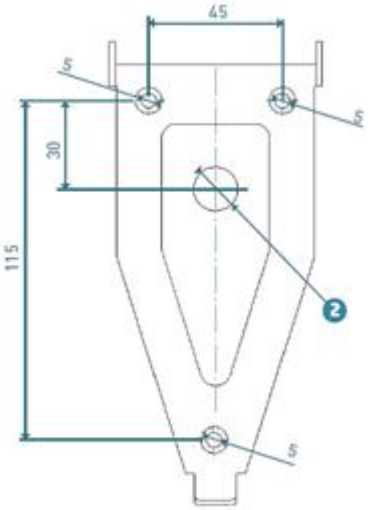
One bracket.

One Infoterminal.

3.1.1 Bracket Features

The measurements (in mm) and locations of the mounting points are shown in the figures below:

FRONT VIEW



FEATURES

1. Holes: These are used to mount the bracket on the wall with screws.
2. Cable lead-through hole: This is the hole that the power cable passes through to the Infoterminal.

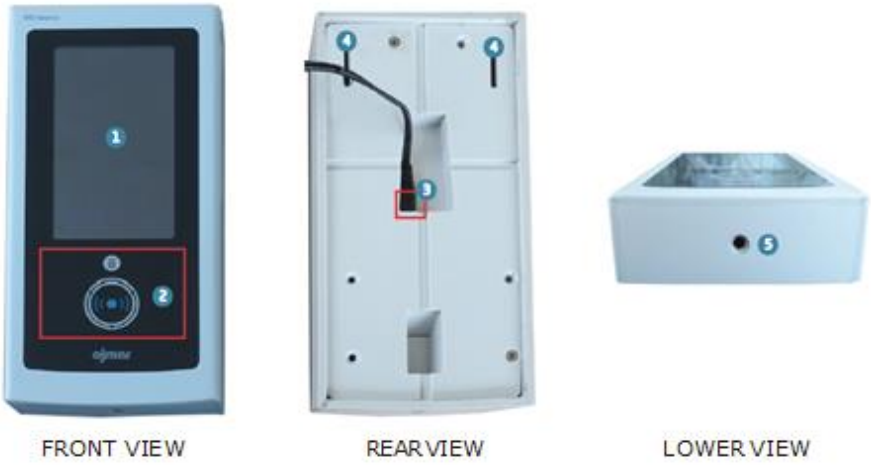
WARNING: It must be at least 15 mm in diameter.

3. Plates: These are used to connect the Infoterminal to the bracket.

NOTE: All bracket measurements are shown in millimetres.

3.1.2 Infoterminal Features

The features of the Infoterminal are indicated below:



FRONT VIEW REAR VIEW LOWER VIEW

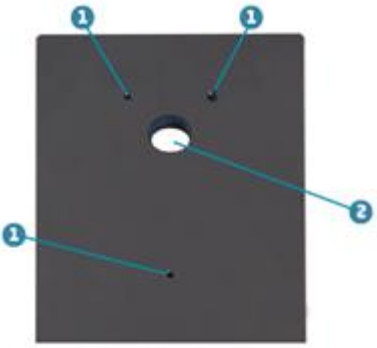
1. Touch screen.
2. Key reading zone: The keys must be placed in this zone so that they can be read by the Infoterminal.
3. Power connector: The power cable must be connected to this connector.
4. Mounting points: The support plates (see previous page) must fit into these mounting points.
5. Screw hole: Hole for the screw adjusting the Infoterminal on the bracket.

NOTE: A power cable is supplied with the Infoterminal.

FEATURES		
MAIN FEATURES	Power supply	Power supply 12 V, 420 mA
	Impact resistance	IK07
	Water resistance	IP45
	Operating temperature range	-15°C / 50°C
	Approximate weight	400 g
	Approximate measurements	194 x 96 x 33
	Reading of media	Mifare Classic 4B 1K
		Mifare Classic 4B 4K
		Mifare Classic 7B 1K
		Mifare Classic 7B 4K
		Desfire
		Ultralight
		Ultralight C
	Certificates and safety standards	EC Approval

3.1.3 Installation

1. To install the Infoterminal, drill 4 holes in the wall - 3 to mount the Infoterminal and one to pass through the mains cable (see Section 3.1.1). Install the bracket once the holes have been drilled.



Bracket base (simulates the wall)


Bracket, once mounted on the wall

1. Infoterminal mounting holes.
2. Hole to pass the power cable (minimum 15 mm in diameter).

2. Once the bracket is in place, pass the power cable through the central hole and connect it to the rear of the Infoterminal.

Powercable

Power cable connection through the bracket

3. Once the power cable is connected to the Infoterminal, fit it on the bracket. To do so, slide it in from above, inserting the upper plates of the bracket into the grooves on the Infoterminal.

Fitting the Infoterminal on the bracket

4. Lastly, adjust the Infoterminal by tightening the screw located at the bottom of it.

Final adjustment of the Infoterminal

3.2 USE OF THE INFOTERMINAL

The Infoterminal starts up and the main screen is displayed once it has been connected to the mains:

Main Infoterminal screen

The Infoterminal recognises free, dedicated and multi-function keys of the facility as valid and any other type of key or a key from another facility as invalid:

a. If the key is free and is not occupying a locker, the following message is displayed when it is placed in front of the Infoterminal sensor:

Free key message

b. The following message is displayed if the key does not belong to the facility or is not a user key:

Invalid key message

c. If the key is dedicated, the following message is displayed when it is placed in front of the Infoterminal sensor.

d. The Infoterminal will display the associated locker numbers if the key is dedicated, multi-function or free and occupying a locker.

NOTE: The Infoterminal can display up to 4 locker numbers.

3.3 INFOTERMINAL CONFIGURATION

The Infoterminal has a configuration menu that includes different possibilities. Simply press on any corner of the screen in the following order to access it:

Access to the main menu

After clicking on the 3 corners of the Infoterminal, a screen appears requesting the access code to enter the main menu provided by Ojmar.

NOTE: Should any problem arise, please contact Ojmar.

Access code to the main menu

Once the code has been entered, the main screen of the configuration menu is accessed:

Main screen of the configuration menu

The following parameters can be edited through the main menu:

1 Language:

If language is selected, the Infoterminal displays a screen with the different languages available. These are:

- English.
- Spanish.
- French.
- German.

Change language

2 Brightness:

If brightness is selected, the Infoterminal displays a screen where its brightness can be changed.

Change brightness

3 Auto-off:

If auto-off is selected, the Infoterminal displays a screen where its disconnection time after a certain period of inactivity can be changed.

Change off time after inactivity

4 Date/Time:

If date/time is selected, the Infoterminal displays a screen where it is possible to:

Change the date.

Change the time.

Enable and disable the display of date and time (1) and key expiry (2).

NOTE: The OTS 20 Batteryless does not have this functionality so it does not matter how this part is configured. It does not show the date and time or the expiration date.

Main date/time menu screen

Date change screen

Time change screen

4. OTS MANAGEMENT SOFTWARE

4.1 PC SOFTWARE

MAIN FEATURES	Management of all types of Ojmar electronic locks
	Control of up to 64,000 locks
	SW extendible to new lock types through a new licence
	Available in several languages: Spanish, English, French and German
	Independent management of different zones or areas of the facility
	Password-protected operators
	Creation and management of impossible to copy free user keys
	Member card personalisation
	Card and user databases exportable to Excel®
	Help manual for installation adjustment
	Synchronised with the PC time
MINIMUM SYSTEM REQUIREMENTS	Operating systems: Windows 2000, Vista, XP or Windows 7/8/9/10/11 (32 and 64 bits)
	Processor: Pentium II or later
	Free RAM: 78 MB
	Available hard-drive space: 60MB
	Adobe AIR & Adobe Reader installed
	CD ROM reader
	1 serial or USB port
	NET Framework 2.0
FACILITY CONTROL TOOLS	Lock event reading
	Programmed card database
	Created lock databases

4.2 SOFTWARE INSTALLATION

The installation of the SW is detailed in the manual "Ojmar database 20 Batterylessnment set up" that is inside the folder "Set-up Manual" of the installation folder.

4.3 LICENCE ACTIVATION

The licence screen will be displayed on accessing the application for the first time. The licence must be activated in order to be able to use the Software. To do so, follow the steps below:

1. Click on the following icon:

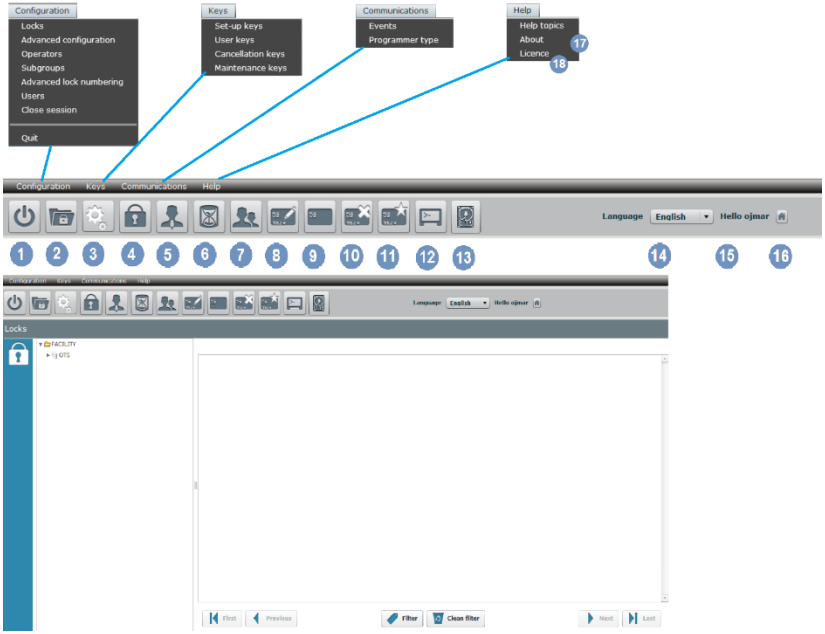
2. Locate the file "License_XXXX" in the "License" folder of the CD and click on OK.

4.4 ACCESSING THE APPLICATION, CONFIGURATION, START-UP AND GENERAL OPTIONS

A user name and password are requested on accessing the application.

The "Licence" folder of the installation CD contains a file called "default user" that includes an operator name and password. This operator is the Administrator, and therefore has permission to perform any action in the program (See Section 4.7 for further details on Operators and permissions).

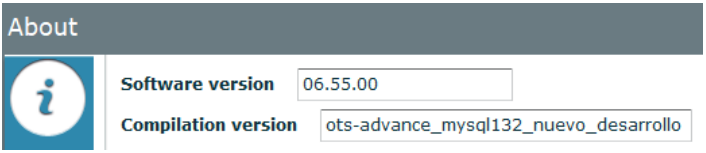
Once inside the application, the following main screen is displayed:



NOTE: The main screen displays the locks screen by default (3). See Section 4.6.

1. Quit: Closes the session and the application.
2. Subgroups: (See Section 4.5)
3. Advanced numbering of locks (see Section 4.6)
4. Locks: (See Section 4.6)
5. Operators: (See Section 4.7)
6. Events: (See Section 4.8)
7. Users: (See Section 4.9)
8. Set-up Keys: (See Section 4.10)
9. User Keys: (See Section 4.11)
10. Cancellation Keys: (See Section 4.12)
11. Maintenance Keys: (See Section 4.13)
12. Programmer Type: (See Section 4.14)
13. PC-Programmer (with NFC Programmer only): (See Section 4.15)

14. Language: One of the following languages can be selected:
    - Spanish.
    - English.
    - German.
    - French.
15. User: Displays the user name used to access the application.
16. Close session: Closes the session started and displays the access window again.
17. About: Displays the Management Software version installed.



18. Licence: Allows for the existing licence to be updated to a new one, unlocking the program features associated to that licence. To do so, click on the following icon and locate the file.

4.5 SUBGROUPS

Subgroups are created in the application to be able to group a set of locks together. This means that locks found in different areas of the facility can be sorted into one site.

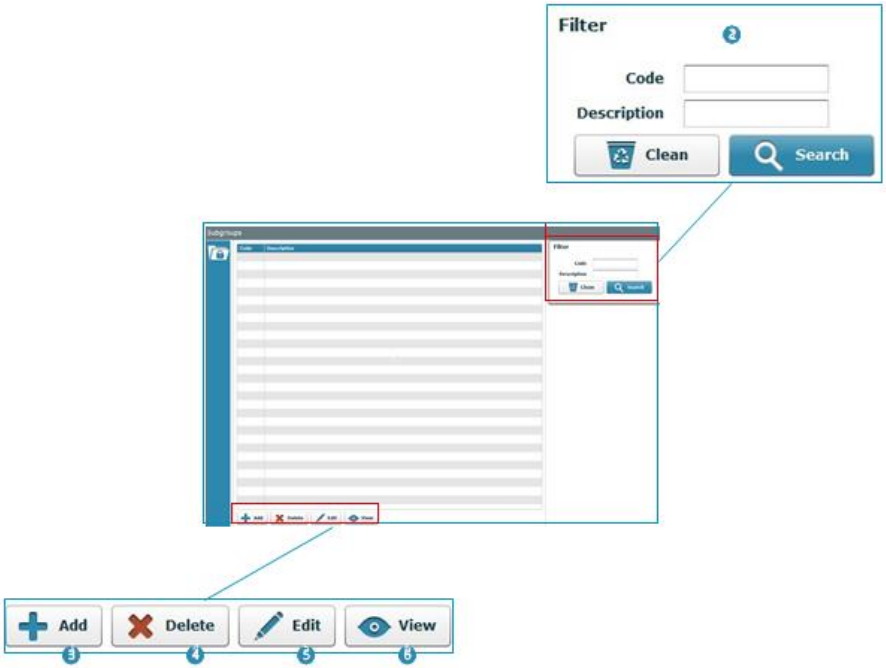
EXAMPLE: All of the boys' changing room locks are grouped into a subgroup called "boys" and all of the girls' into one called "girls".

NOTE: At least one subgroup of locks must be created (a maximum of 16 subgroups).

NOTE: If more than one Subgroup is used, the keys should be physically different (e.g. Green keys for the morning subgroup and blue keys for the afternoon subgroup).

Access this screen via the "Configuration / Subgroups" menu or by clicking on the following button on the main screen:

The main Subgroup screen displays the following information:



1. List of the subgroups created: This list displays the code and name of the groups created.
2. Filter: This allows for the results of the window (1) to be filtered, displaying only the criteria ticked in the fields described here.
3. Add: Adds a new subgroup to the list. Add a name to the description field and click on "Save".

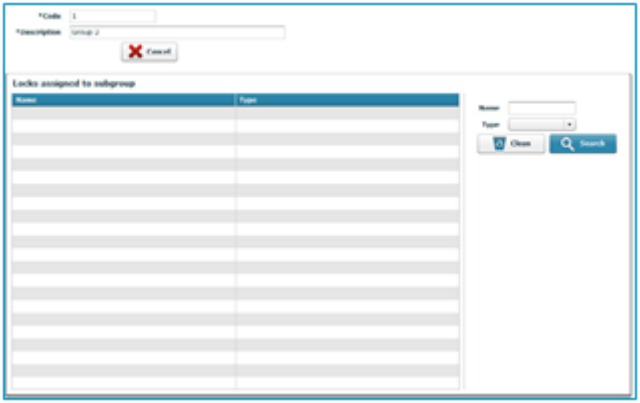
NOTE: The program will automatically fill in the "Code" field.

4. Delete: Deletes a previously created subgroup from the list. To do so, select it and click on this button.

NOTE: On deleting a subgroup, the locks belonging to that subgroup are automatically deleted.

5. Edit: This allows for the name of the subgroup to be edited and for the locks (name and type) associated to it to be seen. To do so, select a subgroup from the list and click on this button.

6. View: This allows for the locks (name and type) associated to the subgroup to be viewed. To do so, select a subgroup from the list and click on this button.



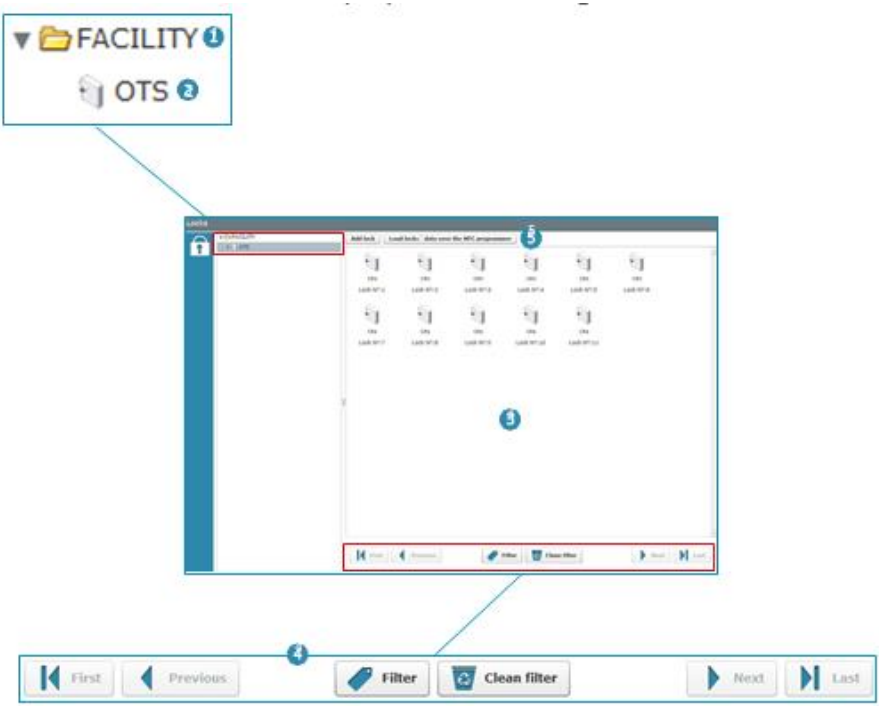
4.6 LOCKS

This window displays all existing locks.

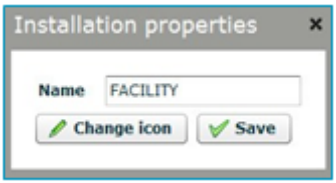
NOTE: The "Locks" window is displayed by default when the application starts.

Access this screen via the "Configuration / Locks" menu or by clicking on the following button on the main screen:

The main Locks screen displays the following information:



1. Name of the facility: The application allows for the name and icon of the facility where the set of locks are located to be changed. To do so, double click on it.



NOTE: The icon must include one of the following formats: swf, gif, jpg or png.

2. Lock type: A facility may have different types of lock. In this case, the locks are of the OTS type.

3. Locks window: This displays the locks that have been created (lock type and number).

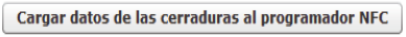
Ots

Lock Nº:1

4. Browse by locks: This enables you to move around the list of locks and apply a filter to simplify the search.

5. Load programmer data: The locks on which events are to be read or initialised must be loaded to the memory of the Ojmar NFC programmer.

NOTE: The Ojmar NFC programmer can include a total of 32 events.

To do so, click on this button 

, select the locks to be loaded and click on the 

button.

The lock information is then saved to the programmer, allowing for direct communications with the locks.

NOTE: If an attempt is made to load a large number of locks, the operation may take several minutes.

NOTE: This process must be performed when:

- A lock is to be initialised from the programmer.
- A property of the lock has been modified from the Software.
- The list of cancelled keys is to be updated from the programmer.

4.6.1 Add Lock

To add one or several new locks, click on the following icon on the main screen 

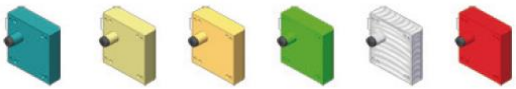
or double click on the 

icon. The following screen will be displayed:

1. Lock name: The name of the lock is formed by the name assigned here + a number.

EXAMPLE: If you create a lock with the name "Lock" and the number "10" is assigned to it, the lock will be called "Lock10".

2. First Lock: Indicates the first lock number to be created.
3. Last Lock: Indicates the last lock number to be created.
4. Lock type: You must indicate whether the lock is Free (See Section 1.5.2) or Dedicated (See Section 1.5.1).
5. Subgroup: Indicates the subgroup to be assigned to the lock (See Section 4.5).
6. Change icon: Allows for the lock icon to be changed. The "Icons" folder on the installation CD includes a total of 6 different icons.



NOTE: The icon can be changed when the lock is created or after they have been created.

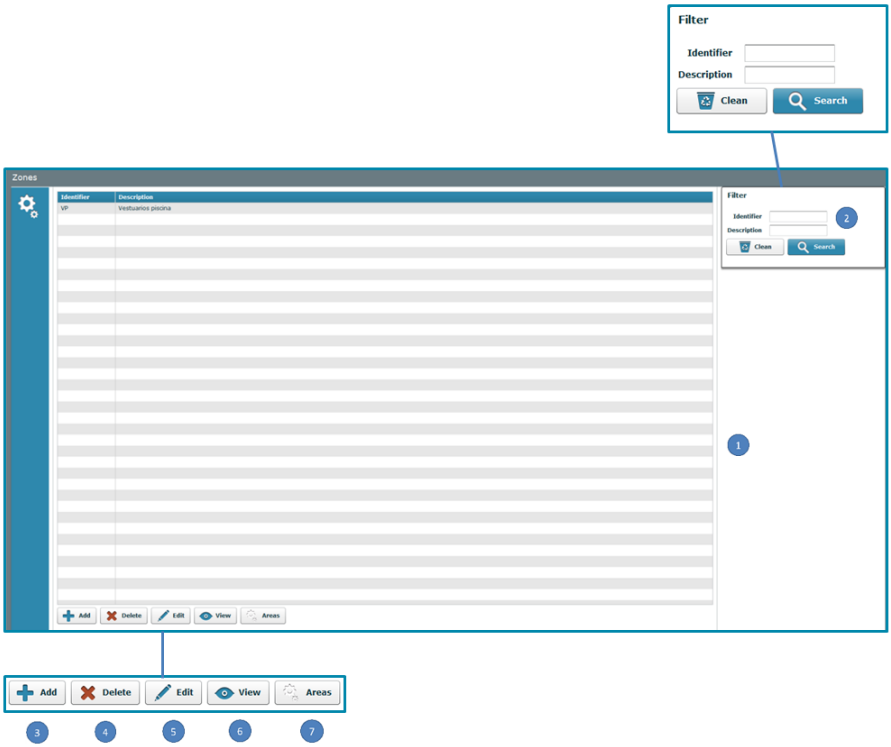
EXAMPLE: In this case, 10 locks are created (from 1 to 10) that will be called Lock (Lock1, Lock2, Lock3, etc.), which will be free and will belong to the "Group 2" subgroup.

In some cases, it is possible that a numbering with alphanumeric characters is needed to be able to identify, in addition to the numbering of the locks, Zones and Areas where they are located, for this, the advanced lock numbering must be used (See section 4.6.2

4.6.2 Advanced Lock Numbering

Access this screen through the menu "Configuration / Advanced numbering of locks" or by pressing the following button on the main screen:

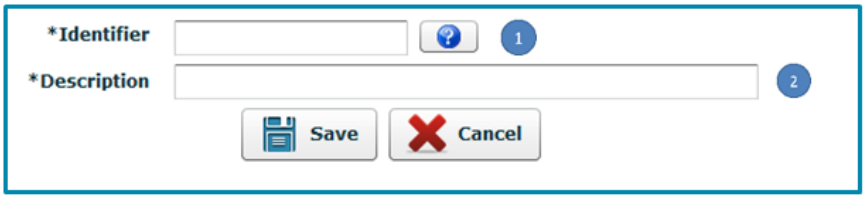
This menu will be used if you need to identify the locks with additional information apart from a number, such as a specific building, zone or area. The advanced numbering consists of Zones (alphanumeric characters), mandatory field, Areas (alphanumeric characters), non-mandatory field and a numeric identifier, mandatory field.
The main Advanced Lock Numbering screen displays the following information:



1. List of all created zones: This list is made up of two columns. One with the zone identifier and the other, which includes an extended description of the same.
2. Filter Window: Allows you to filter the results of the window (1) showing only the criteria marked in the “Identifier name” and / or “Description” field.
3. Add: Add a new zone to the list (see Section 4.6.2.1).
4. Delete: Delete a zone. To do this, select it from the list and press this button.
5. Edit: It allows modifying the zone data and checking the locks assigned to each one, as well as their type (see Section 4.6.2.2). To do this, select an area from the list and press this button.
6. View: Allows you to see all the data and locks assigned to the zone. To do this, select it from the list and press this button.
7. Areas: It allows including specific areas within each zone in the name of the lock. To do this, select the desired zone from the list and press this button. (See section 4.6.2.3)

4.6.2.1 Add new zone

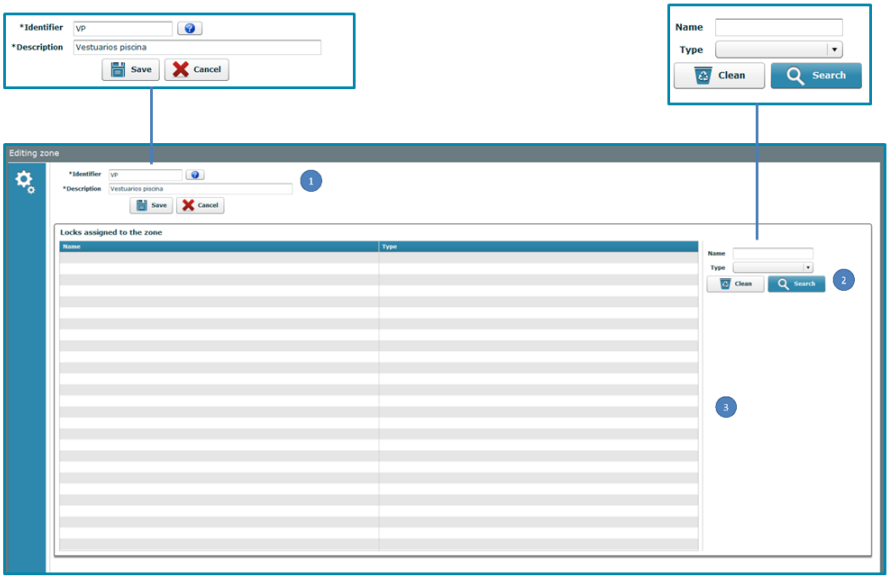
To add a new zone, the following fields must be completed.



1. Identifier: The identifier will be the code shown in the name of the lock, a maximum of 2 characters can be indicated (made up of letters and / or numbers).
2. Description: The description of the area is expanded.

4.6.2.2 Edit zone

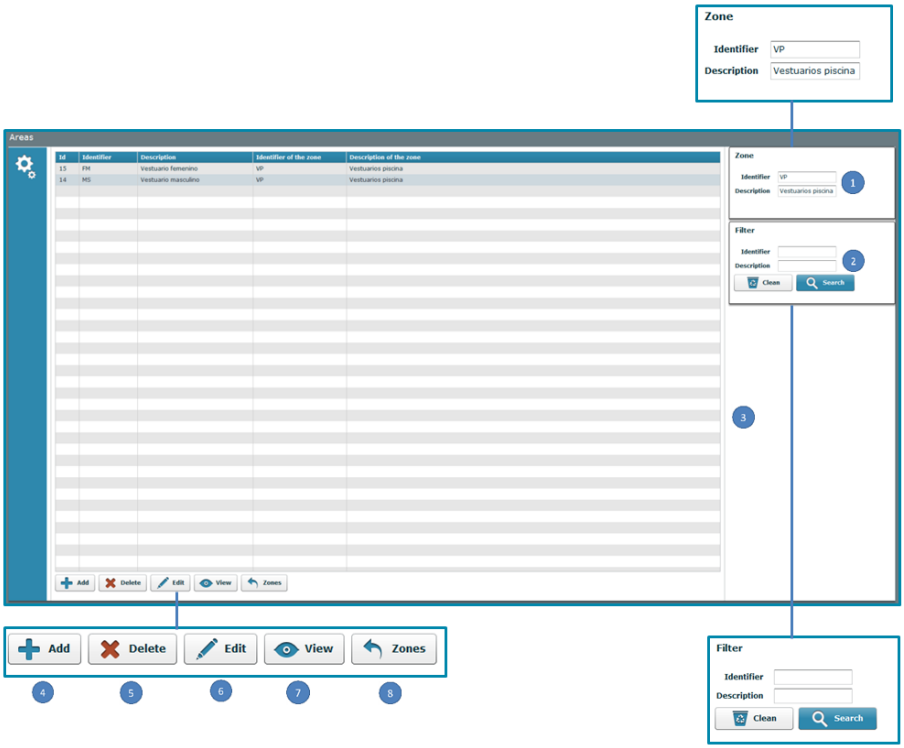
The main "Edit" screen shows us the following information.



1. Identifier and Description parameters assigned to the zone.
2. 2. Filter window: Allows you to filter the results of the window (3) showing only the criteria marked in the “Identifier name” and / or “Description” field.
3. List of locks assigned to the zone with their corresponding type (Free or Fixed).

4.6.2.3 Areas

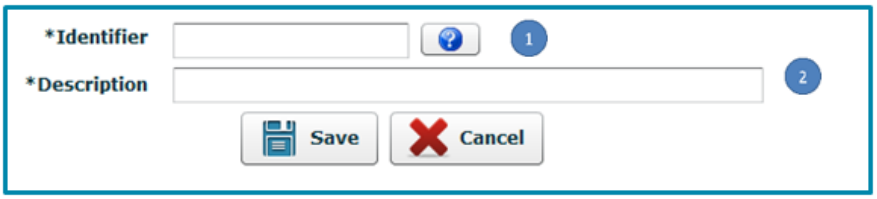
The main “Areas” screen displays the following information.



1. Zone. Displays the data of the selected zone in which the different areas are added.
2. Filter window: Allows you to filter the results of the window (1) showing only the criteria marked in the “Identifier name” and / or “Description” field.
3. List of areas assigned to each zone.
4. Add: Add a new area to the list (see Section 4.6.2.3.1)
5. Delete: Delete an area. To do this, select from the list and press this button.
6. Edit: It allows modifying the area data and checking the locks assigned to each one, as well as their type (see Section 4.6.2.3.2). To do this, select it from the list and press this button.
7. View: Allows you to see all the data and locks assigned to the area. To do this, select from the list and press this button.
8. Zones. Press this button to return to the zone screen.

4.6.2.3.1 Add new area

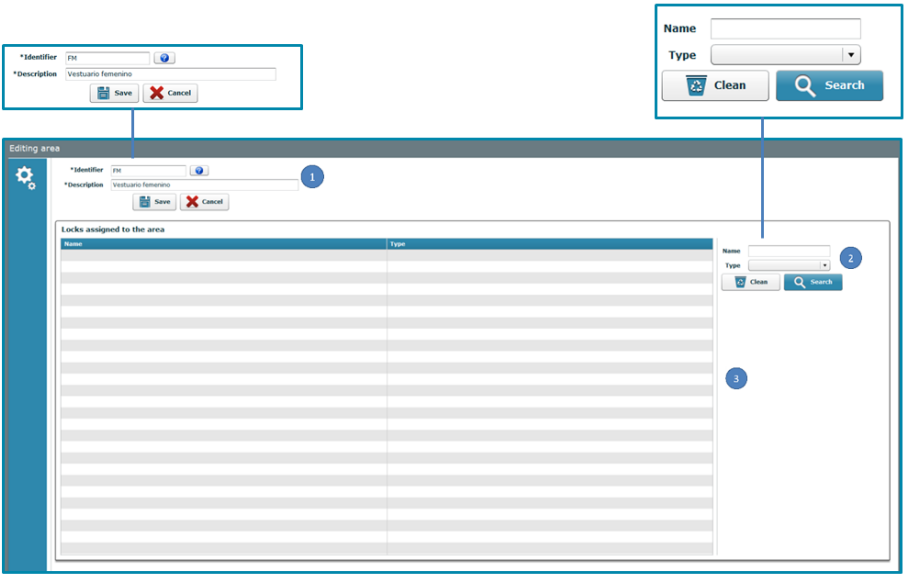
To add a new area, the following fields must be completed.



1. Identifier: The identifier will be the code shown in the name of the lock, a maximum of 2 characters can be indicated (made up of letters and / or numbers).
2. Description: The description of the area is expanded.

4.6.2.3.2 Edit area

The main "Edit" screen shows us the following information.



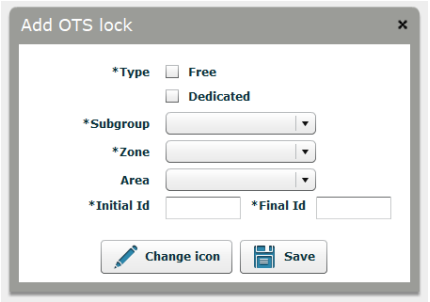
1. Identifier and Description parameters assigned to the area.
2. Filter window: Allows you to filter the assigned area locks
3. List of locks assigned to the area with their corresponding type (Free or Fixed)

4.6.3 Add Lock with Advanced Numbering

To add one or several new locks, click on the following icon on the main screen 

or double click on the 

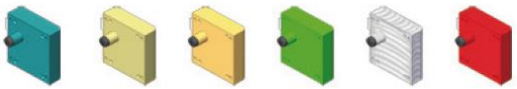
icon. The following screen will be displayed:



1. Lock name: The name of the lock is made up of the fields Zone + Area (Only if it has been used) + An identifier.

- EXAMPLE: If we select as ZONE "XX" as AREA "YY" and it is assigned identifier 10, the lock name will be XXYY10
- NOTE: The maximum identifier that can be assigned to a lock is 65534.

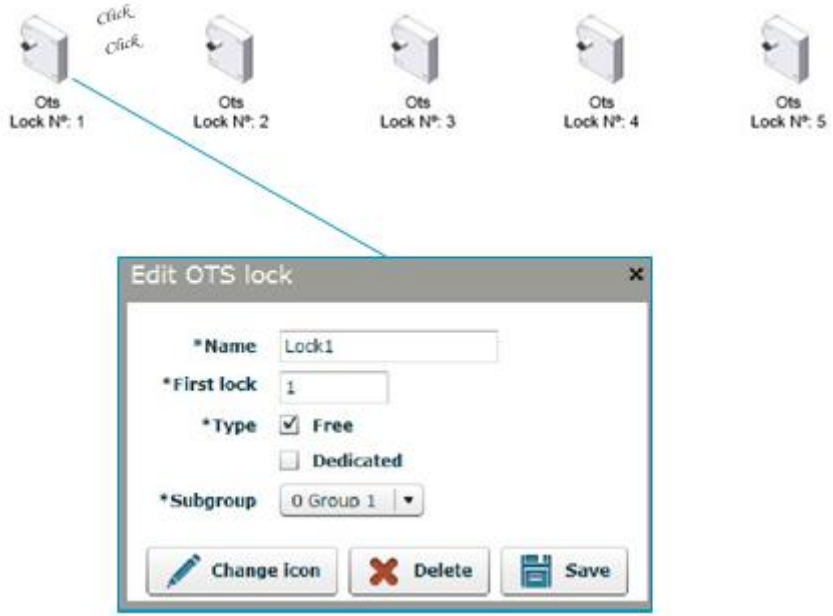
2. Lock type: You must indicate whether the lock is Free (See Section 1.5.2) or Dedicated (See Section 1.5.1).
3. Subgroup: Indicates the subgroup to be assigned to the lock (See Section 4.5).
4. Zone: Indicates the zone to which the lock will be assigned (See Section 4.6.2)
5. Area: Indicates the area to which the lock will be assigned (See Section 4.6.2)
6. Initial ID: Indicates the first lock number to be created.
7. Final ID: Indicates the last lock number to be created.
8. Change icon: Allows for the lock icon to be changed. The "Icons" folder on the installation CD includes a total of 6 different icons.



NOTE: The icon can be changed when the lock is created or after they have been created.

4.6.4 Edit / Delete Lock

Double click on the corresponding lock icon to edit the properties of a lock:



The following information can be modified:

Name of the lock.
Number of the lock.

NOTE: No number already used by another lock can be used.

- Lock type (Free, Dedicated).
- Subgroup.
- Icon.
- Delete lock: Click on the 

button to delete a lock.

NOTE: To delete more than one lock:
1 - Click on the first lock.

2 - Press the "Shift" key on the keyboard. ⇧

3 - Click on the last lock to delete (they will be selected).

4 - Press the "Del" key on the keyboard.

4.7 OPERATORS

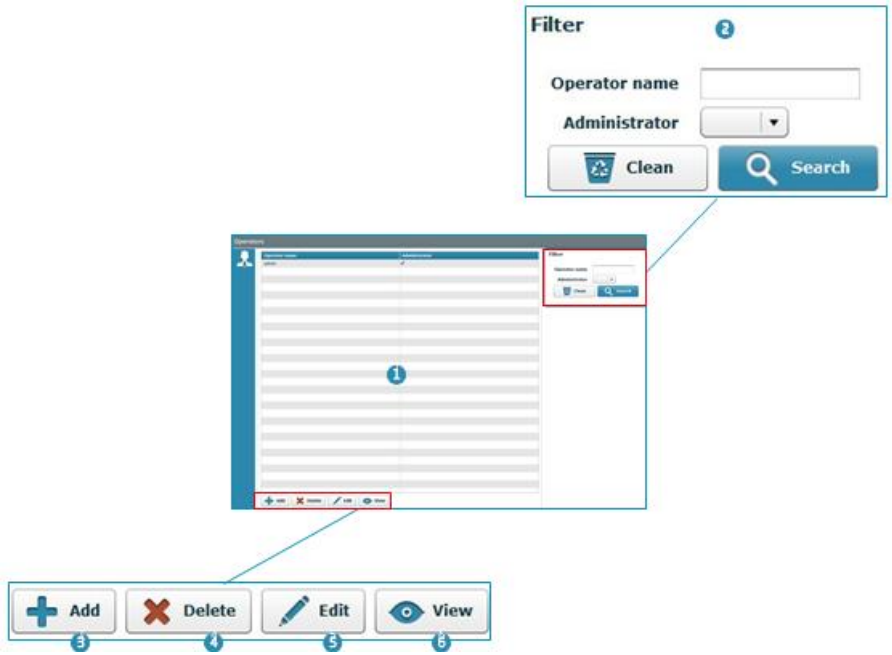
Operators are application users who, depending on the permissions assigned, will be able to perform certain actions.

The installation file provides an administrator user name and password (see the "default user" file in the "Licence" folder). This Administrator user can create the remaining application users.

NOTE: There must be at least one administrator user in the application.

Access this screen via the "Configuration / Operators" menu or by clicking on the following button on the main screen:

The main Operators screen displays the following information:



1. List all operators created: This list is made up of two columns. One with the name of the operator and the other indicating whether or not the operator is Administrator. If the operator is administrator, this icon will be displayed. Where the operator has some kind of permission restriction, the following icon will be displayed .

2. Filter Window: This allows for the results of the window (1) to be filtered, displaying only the criteria ticked in the "Operator name" and/or "Administrator (yes/no)" field.

3. Add: Adds a new Operator to the list (See Section 4.7.1).

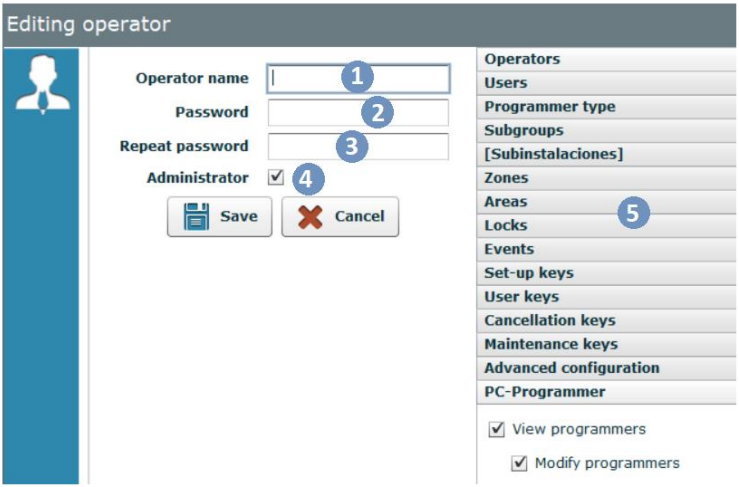
4. Delete: Deletes an Operator. To do so, select it from the list and click on this button.

5. Edit: Allows for the Operator data/permissions to be modified (See Section 4.7.1). To do so, select it from the list and click on this button.

6. View: Allows for all data/permissions assigned to the user to be viewed. To do so, select it from the list and click on this button.

4.7.1 Add New Operator

Fill in the following fields to add a new operator.



1. Operator name.
2. Password.

NOTE: The password must contain at least 4 characters.

3. Repeat password: This must match the password (2).
4. Administrator: On ticking this box, all permissions from the list (5) will be assigned to the user.
5. Permissions list: If the Administrator tab (4) is not ticked, no custom permissions can be assigned. The full list is given below:

- Operators:
  - View operators (this box must be ticked in order to tick the subgroup boxes)
    - > Modify operators
    - > Add operators
    - > Delete operators
- SW configuration options:
  - View configuration options (this box must be ticked in order to tick the subgroup boxes)
    - > Modify read/write Key

        > Modify data sectors

- Users:
    - View users (this box must be ticked in order to tick the subgroup boxes)
        > Modify users
        > Add users
        > Delete users
- Programmer type:
    - View type of programmer (this box must be ticked in order to tick the subgroup boxes)
        > Modify COM ports
        > Modify programmer type
- Subgroups:
    - View Subgroups (this box must be ticked in order to tick the subgroup boxes)
        > Modify Subgroups
        > Add Subgroups
        > Delete Subgroups
- Locks:
    - View locks (this box must be ticked in order to tick the subgroup boxes)
        > View lock configuration
        > Modify lock configuration
        > Add locks
        > Delete locks
        > Modify installation properties
- Events:
    - View events (this box must be ticked in order to tick the subgroup boxes)
        > Delete event list
        > Print events
        > Export events to a file
- Set-up keys:

- View set-up keys (this box must be ticked in order to tick the subgroup boxes)

  > Set-up keys

- User keys:
  - View user keys (this box must be ticked in order to tick the subgroup boxes)

    > User keys

- Cancellation keys:
  - View cancellation keys (this box must be ticked in order to tick the subgroup boxes)

    > Cancellation keys

- Maintenance keys:
  - View maintenance keys (this box must be ticked in order to tick the subgroup boxes)

    > Maintenance keys

- PC-Programmer:
  - View programmers (this box must be ticked in order to tick the subgroup boxes)

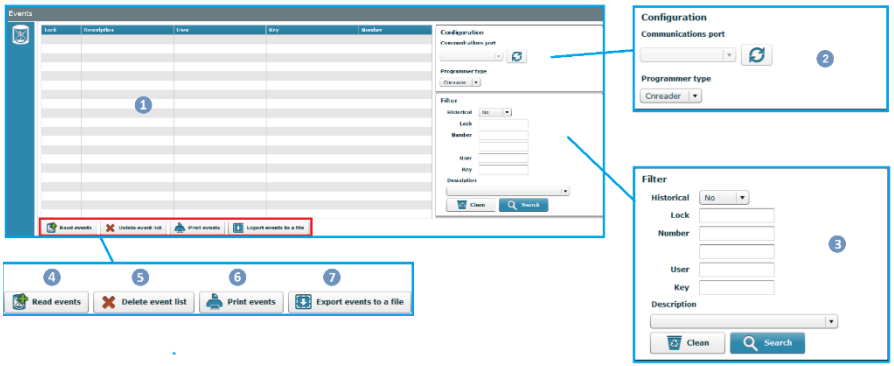
    > Modify programmers

4.8 EVENTS

The locks are able to store accesses and actions that have occurred on them. The Ojmar NFC programmer or an events key must be used to collect these movements (See Section 4.13.1). The events screen displays these movements.

Access this screen via the "Communications / Events" menu or by clicking on the following button on the main screen:

The main Events screen displays the following information:



1. List of events: This list displays the events recorded on the events key or in the Ojmar NFC programmer. Example:
   - The lock number used.
   - Action taken on the lock.
   - User to have performed the event.
   - Key used.
   - Event number according to the order in which the event was carried out.
2. Configuration: This displays the configuration defined in Section 4.14 or establishes a new connection with the programmer by clicking on the following icon (See Section 4.16).
3. Filter: This allows for the results of the window (1) to be filtered, displaying only the criteria ticked in the fields described here.
4. Read events: See Section 4.8.1.
5. Delete event list: Deletes the events displayed in the window (1).
6. Print events: Generates a document containing the events displayed in the window (1) and displays it on the screen. This list can be printed or saved in pdf format.
7. Export events to a file: Exports the events displayed in the window (1) to an Excel file.

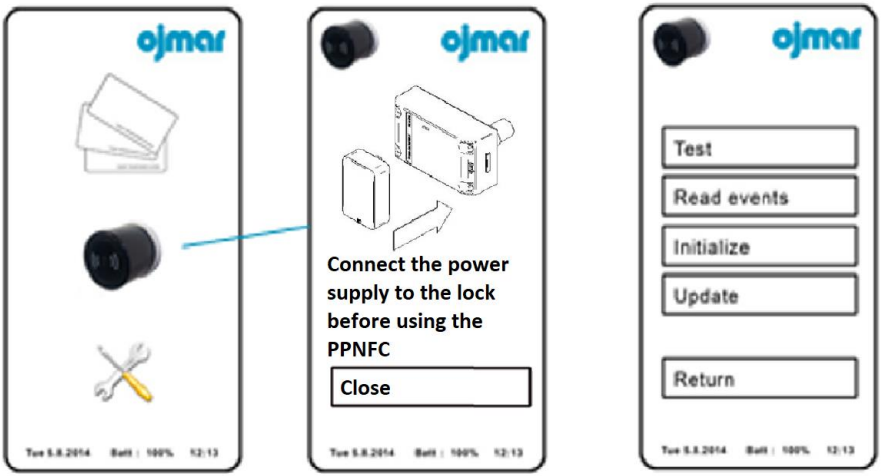
4.8.1 Read Events

It is possible to read events from an events key (See Section 4.13.1) or from the Ojmar NFC programmer.

The following screen is displayed on clicking on this button:

Read events from the programmer: The following steps must first have been taken to be able to read the events stored in the Ojmar NFC programmer:

- Load the locks on which the events are to be collected in the programmer (See point (5) of Section 4.6).
- Connect the programmer on any of the locks added in the previous point and click on the "Read events" button of the programmer.



EXAMPLE: To learn which events have occurred on lock 1. First load this lock in the programmer (See Section 4.8.1). Then connect the programmer to the lock in line with the process indicated in the illustration above. Finally tick the "Read events from the programmer" tab and click on Send.

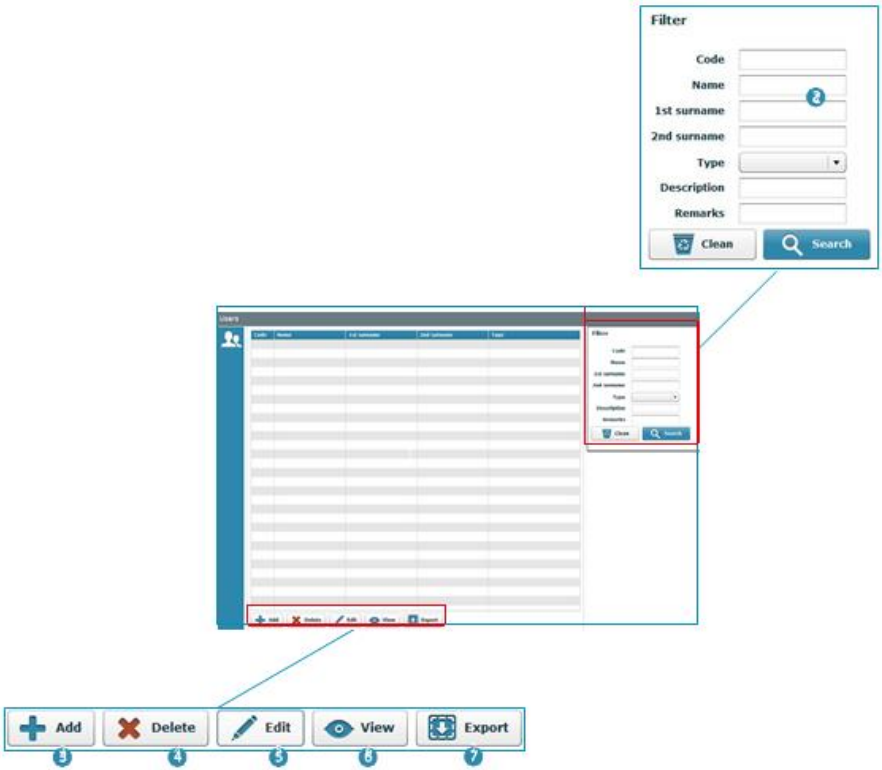
Read events from the key: To read events from an events key, place the key in the reading zone of any of the two programmers and click on "Send".

4.9 USERS

The user screen allows for a list to be created containing clients that can later be associated to the keys.

Access this screen via the "Configuration / Users" menu or by clicking on the following button on the main screen:

The main Users screen displays the following information:



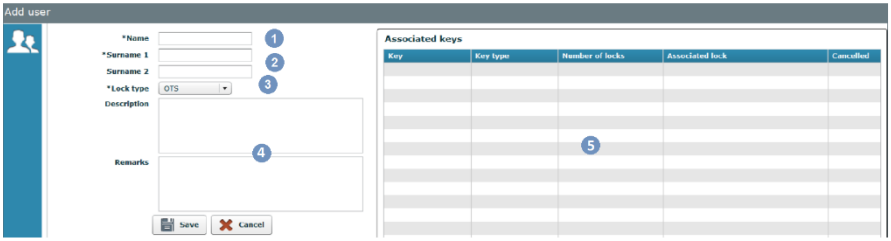
1. List all users created: This list displays the personal details of the user and the type of lock associated.
2. Filter Window: This allows for the results of the window (1) to be filtered, displaying only the criteria ticked in the fields described here.
3. Add: Adds a new user (See Section 4.9.1).
4. Delete: Deletes a User from the list. To do so, select it and click on this button.
5. Edit: Allows for the User parameters to be modified (See Section 4.9.1). To do so, select a User from the list and click on this button.

6. View: Allows for the User parameters to be viewed (See Section 4.9.1). To do so, select a User from the list and click on this button.
7. Export: Exports the full list to a file in Excel format.

4.9.1 Add User

Fill in the following fields to add a new user.

NOTE: All of the fields marked with an * must be filled in.



1. Name: User name.
2. 1st and 2nd surname: User's Surnames, the first being mandatory.
3. Lock type: Type of lock associated to the user.
4. Description and remarks: Optional fields to add extra information on the user.
5. Existing user list

4.10 WRITE SET-UP KEYS

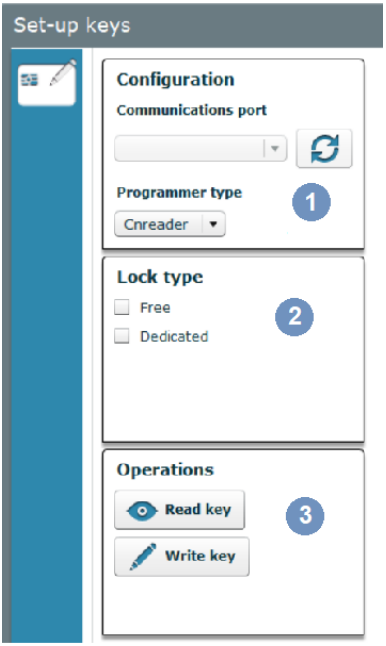
Set-up keys allow for a lock to be configured, leaving it operational (if the lock was previously factory configured) or changing its properties.

Set-up keys can:

- Configure one or several "Free" type locks.
- Configure one or several "Dedicated" type locks.

Access this screen via the "Keys / Set-up keys" menu or by clicking on the following button on the main screen:

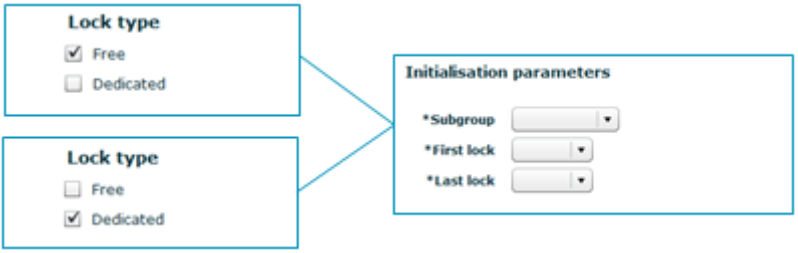
The main set-up keys screen displays the following information:



1. Configuration: This displays the configuration defined in Section 4.14 or establishes a new connection with the programmer by clicking on the following icon  (See Section 4.16).
2. Lock type: Set-up keys can be programmed from here for:

- "Free" and "Dedicated" type locks: To do so, select the lock type, a subgroup, the start and end lock and click on the 

button.



NOTE: The set-up keys must be created for consecutive lock groups. See the example below.

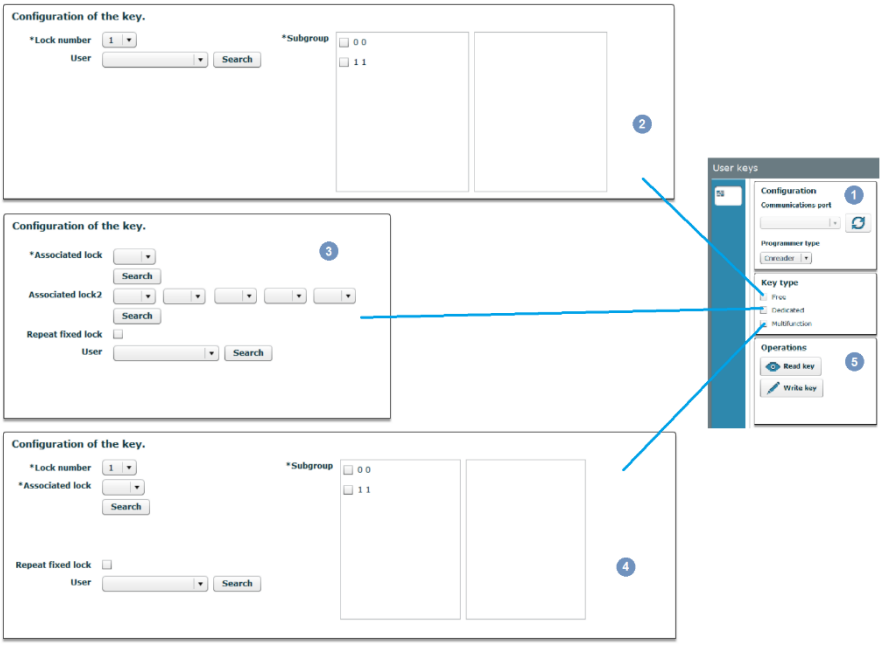
EXAMPLE: There are several free locks to be initialised: from 1 to 10 and from 40 to 50. In this case, two set-up keys must be created. One for the 1 to 10 group and another key for the 40 to 50 group.

3. Operations: This allows for the contents of the key to be read or for the values entered in Points (2) and (3) to be recorded.

4.11 WRITE USER KEYS

Access this screen via the "Keys / User keys" menu or by clicking on the following button on the main screen:

The main user keys screen displays the following information:



1. Configuration: This displays the configuration defined in Section 4.14 or establishes a new connection with the programmer by clicking on the following icon  .
2. Free key type: See Section 4.11.1.
3. Dedicated key type: See Section 4.11.2.
4. Multi-function key type: See Section 4.11.3.
5. Operations: This allows the contents of the key to be read or the values entered in Points (2), (3) and (4) to be recorded.

4.11.1 Write Free Key

NOTE: There must be at least one Free key in order to be able to create a key of this type.

NOTE: All of the fields marked with an * must be filled in.

1. Number of locks: Number of locks that a key can open (maximum 3).

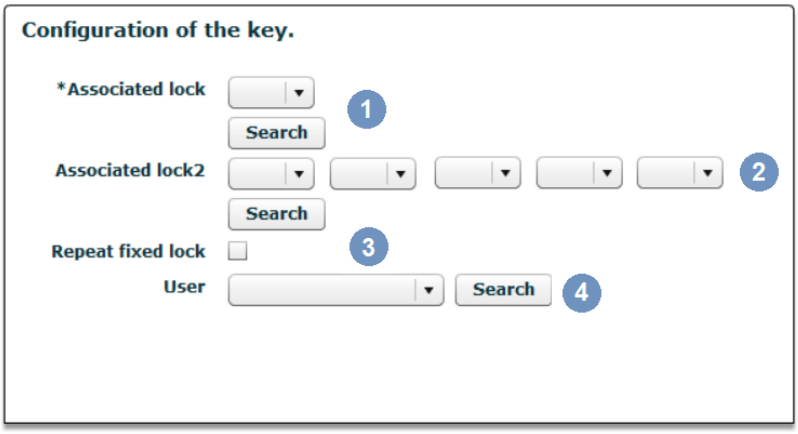
EXAMPLE: 1 lock per user. 2 or 3 locks per family.

2. Subgroup: Subgroup (more than one can be selected) to which the key belongs (See Section 4.5).

3. User: A previously created user can be selected for greater control and information on the key (See Section 4.9).

4.11.2 Write Dedicated Key

NOTE: There must be at least one dedicated key in order to be able to create a key of this type.



NOTE: All of the fields marked with an * must be filled in.

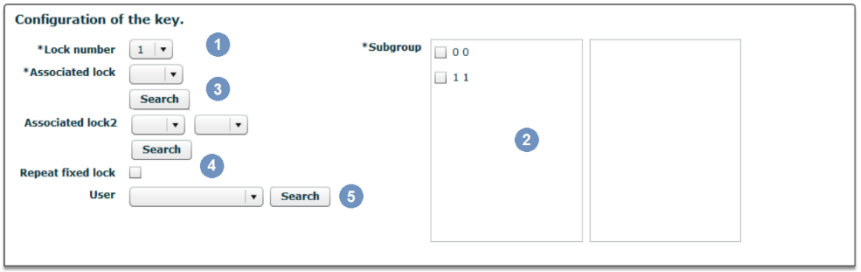
1. Associated lock: Displays a list of dedicated locks that can be assigned.
2. Associated lock 2: Additionally, the key can be linked to more than one dedicated
   lock.

NOTE: A dedicated key can manage a total of 6 dedicated locks.

3. Repeat dedicated lock: Allows for a duplicate dedicated key to be created. In this case, a list will be displayed with the lock numbers and an * above the lock number with a duplicate dedicated key.
4. User: A previously created user can be selected for greater control and information on the key (See Section 4.9).

4.11.3 Write Multifunction Keys

NOTE: There must be at least one Free and Dedicated key in order to be able to create a key of this type.



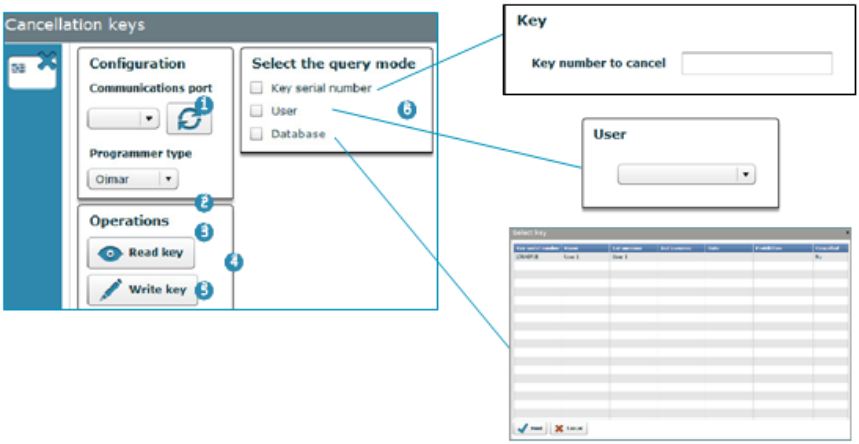
NOTE: All of the fields marked with an * must be filled in.

1. Number of locks: Number of free locks that a key can open (maximum 3).
2. Subgroup: Subgroup (more than one can be selected) to which the key belongs (See Section 4.5).
3. Associated lock: Displays a list of dedicated locks that can be assigned. Additionally, the key can be linked to 2 more dedicated locks from the "Associated lock 2" field.
4. Repeat dedicated lock: Allows for a duplicate dedicated key to be created. In this case, a list will be displayed with the lock numbers and an * above the lock number with a duplicate dedicated key.
5. User: A previously created user can be selected for greater control and information on the key (See Section 4.9).

4.12 CANCELLATION KEYS

Access this screen via the "Keys / Cancellation keys" menu or by clicking on the following button on the main screen:

The main cancellation keys screen displays the following information:



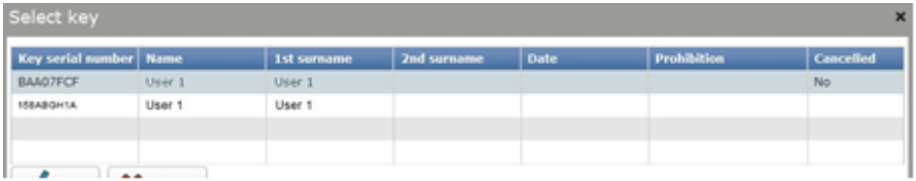
1. Configuration: This displays the configuration defined in Section 4.14 or establishes a new connection with the programmer by clicking on the following icon  (See Section 4.15).
2. Read key: This allows for the key to be read, displaying its contents on the screen.
3. Write key: Records the value selected in Point (6) on the key.
4. Search key ID: Displays a detailed list of stored users of the facility. Select the key to be cancelled from the database and click on 

.
5. Clear: Clears the fields ticked on the screen.
6. Query mode: Allows search and selection of the type of cancellation key to be recorded:
   - Key serial number: Enter the serial number of the key to be cancelled.

NOTE: This code may be between 8 and 14 characters in length (depending on the key technology).

- User: Select the user to be cancelled from the drop-down list.

NOTE: Where the user has more than one key, a list with all those available will be displayed. In this case, select the key to be cancelled and click on Send.

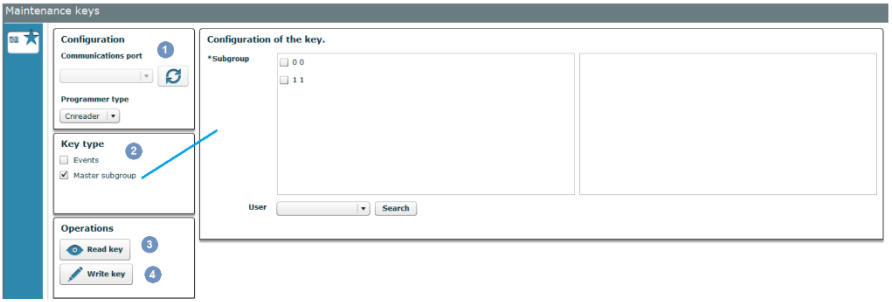


- Database: Select the key to be cancelled from the database and click on Send. This database contains all of the records stored for the facility and displays a detailed list of them.

4.13 MAINTENANCE KEYS

Access this screen via the "Keys / Maintenance keys" menu or by clicking on the following button on the main screen:

The main cancellation keys screen displays the following information:



1. Configuration: This displays the configuration defined in Section 4.14 or establishes a new connection with the programmer by clicking on the following icon (See Section 4.15).
2. Key types: There are two types of maintenance key that can be programmed:
   - Events key: See Section 4.13.1.
   - Master subgroups key: See Section 4.13.2.

3. Read key: This allows for the key to be read, displaying its contents on the screen.

4. Write key: Records the value selected in Point (2) on the key.

4.13.1 Events Key

Events keys are used to store events for a specific lock on them:

"Mifare Classic" type keys can store between 3 and 5 events.

"Mifare Desfire EV1" type keys store the last 3 events.

EXAMPLE: If you want to know which keys accessed a specific lock and at what times. Create an events key. Go to the lock and pass the key over it. The key will store the latest events of the lock.

Once the events have been stored on the key, see Section 4.8 to read them on the screen.

4.13.2 Master subgroups Key

The Master subgroup key can operate in two different ways depending on the status of the lock:

Lock closed: If the lock is closed, it can be opened without deleting any information saved. It can only open it if the subgroup assigned to the lock matches that of the key.

Lock open: If the lock is open then this key can close it, provided the subgroup assigned to the key matches.

NOTE: All of the free locks required can be used.

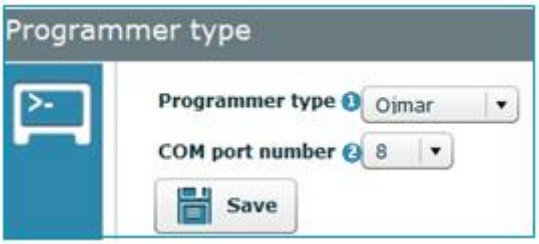
To create a key of this type, a subgroup must be selected. All other fields are optional.

4.14 PROGRAMMER TYPE

One programmer and one communications port can be predetermined so that communications do not have to be established with the programmer whenever the keys are to be used.

Access this screen via the "Communications / Programmer Type" menu or by clicking on the following button on the main screen:

The main programmer type screen displays the following information:



1. Programmer type: Select between NFC or CNReader model.
2. COM port number: Select the communications port where the programmer is connected.

NOTE: See Section 4.16 for information on the communications port (COM) that is connected to the programmer.

4.15 PC-PROGRAMMER

The OTS Software allows for the following firmware versions to be updated:

The Ojmar programmer.
The OTS locks.

NOTE: Firmware is a small software that is located in the memory of these devices and that allows them to be initialised and used.

WARNING: Only the Firmware supplied by Ojmar must be used.

Access this screen via the "Communications / PC-Programmer" menu or by clicking on the following button on the main screen:

NOTE: This button is only displayed if the preset programmer type is Ojmar NFC (See Section 4.14).

The main programmer type screen displays the following information:

1. Reprogram programmer: Proceed as follows to update the Ojmar NFC programmer firmware:
    1. Switch on the programmer and connect it to the PC.
    2. Select the file (with extension ".hex" or ".bin") supplied by Ojmar and click on "OK".
2. 2 and 3 Reprogram OTS lock: Proceed as follows to update the firmware for either of these two locks:
    1. Switch on the programmer and connect it to the PC.
    2. Select the file (with extension ".hex" or ".bin") supplied by Ojmar and click on "OK".
    3. Ask the Ojmar technical service for guidance on the updating process (See Section 0.4).

4.16 ESTABLISH COMMUNICATIONS WITH THE PROGRAMMER

Communications must be established with the programmer before you can use the keys.

To do so:

1. Select programmer type: Select between the Ojmar NFC or CNReader programmer.
2. COM port number: Click on the following icon for the communications port (COM) to be automatically detected.

NOTE: The port resulting from the automatic search (COM1, COM2, etc.) may be used to configure the "Programmer Type" (See Section 4.14).

5. CLEANING AND MAINTENANCE

Periodic cleaning of the locks ensures that they are in good condition and that their proper functioning is maintained.

For a correct maintenance of the lock, the following indications must be complied with:

- Clean dirt and dust with a dry, soft, lint-free cloth.

- In case of extreme dirt, clean the lock with a damp cloth. Do not allow moisture to enter the internal parts of the OTS 20 Batteryless lock. (do not use any detergent product) and then dry it completely.

• NOTE! Do not use cleaning benzene, thinners or other abrasive detergents. In addition, the components must not be cleaned with a high-pressure cleaner or steam, otherwise damage may occur!

- Do not submerge it.

- Protect it from water.

• ATTENTION: In case of cleaning the facility by means of water jets, it is necessary to keep the doors of the facility ticket offices closed to keep them free from the effect of corrosive substances that accelerate wear.

• ATTENTION: When the USB hole on the back of the lock gets wet, dry it completely with a soft and clean cloth. If the device got wet, you must dry the inside of the charging port before inserting a power connector to power the device. If the charging port is not completely dry, the device may not work properly. For example, the power supply tool may overheat.

- Do not expose it to direct sunlight or extreme temperatures.

- Don't drop it.

- Do not subject it to strong impacts.

- Do not disassemble it.

6. FAQS

6.1 FAQS

QUESTION	CAUSE	SOLUTION
The following message is displayed on attempting to read a key: "Check the programmer's connection. It may be turned off or disconnected"	Communications have not been established with the programmer.	Check that the programmer: • Is correctly connected to the USB port. • The programmer drivers are correctly configured. See Sections 2.4 and 2.5. • Communications have been established with the programmer from the OTS Management Software. See Section 4.16. • Select the correct programmer model: CNReader or Ojmar.
On creating a cancellation key, the following message is displayed when the database is selected: "There are no keys assigned to users in the database"	• There is no user in the database. • No key has been created. • User keys (free or dedicated) have been created but no user from the database has been assigned to them.	There must be at least one user and one key (free or dedicated) to which a user has been assigned.
The following message is displayed on attempting to connect to the programmer: "No COM port on the list is of the OTS type"	The programmer type is incorrect.	Select the correct programmer model: CNReader or Ojmar.
The following message is displayed on attempting to read or record a key: "No key on the programmer"	No key has been placed on the programmer or it is incorrectly placed.	Place a key on the programmer within the reading limits.

QUESTION	CAUSE	SOLUTION
The following message is displayed on attempting to read the events of a lock from the Ojmar NFC programmer: “No comm with lock. Result: ERROR”	The lock type selected is incorrect.	Make sure the lock is OTS
The following message is displayed on initialising a lock using the Ojmar NFC programmer: “Lock is NOT in the list”	The lock has not been added to the list of locks in the programmer.	Add the lock, following the steps given in Section 4.8.1.
The lock does not open	The lock is being used by another key.	Pass the master key (Red) and check that it has been correctly released by closing and opening the lock using a free user key.
The key does not work on the locks.	The key is being used in another lock or the key has never been used.	Check whether the key has never been used or is in use by reading it using the programmer or software. If it is being used, release it using the Management Software or by closing and opening the lock in use. If it has never been used, record the key on the programmer or in the Management Software.

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