

# USER MANUAL



## OTS ADVANCE SYSTEM

**VERSION 3.3**

**ojmar**

INTELLIGENT LOCKING SYSTEMS  
[www.ojmar.com](http://www.ojmar.com)



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# 0. GENERAL DESCRIPTION

## 0.1. GENERAL DESCRIPTION

OTS Advance is an electronic lock system for collective use Lockers. The full system is made up of the following components:

- OTS Advance Lock (see Section 1).
- Key kit (see Section 1.6).
- Portable programmer (see Section 2).
- Infoterminal (see Section 3).
- Management software (see Section 4).

## 0.2. SYMBOLS USED IN THE USER MANUAL



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



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



The warning boxes highlight the importance of the information described.

## 0.3. GENERAL WARNINGS

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

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

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

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.).



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.

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

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

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.

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

In compliance with Royal Decree 106/2008, dated February 1st 2016, the batteries must be removed and disposed of properly before leaving the equipment at the recycling collection point.



## 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.

### 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.

### RF exposure safety

This product is a radio transmitter and receiver.

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 748484
- Fax: +34943748490
- Website: [www.ojmar.com](http://www.ojmar.com)



# 1. OTS LOCKS

### 1.1. GENERAL DESCRIPTION

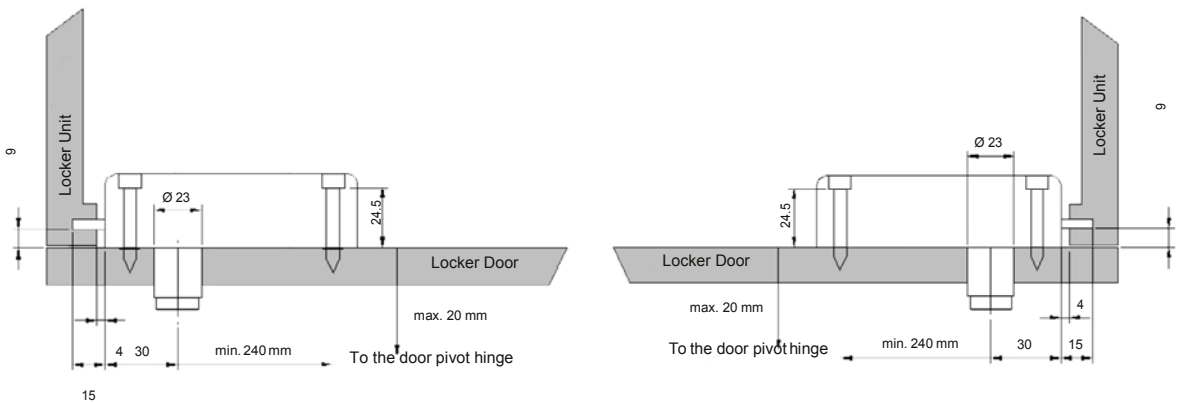
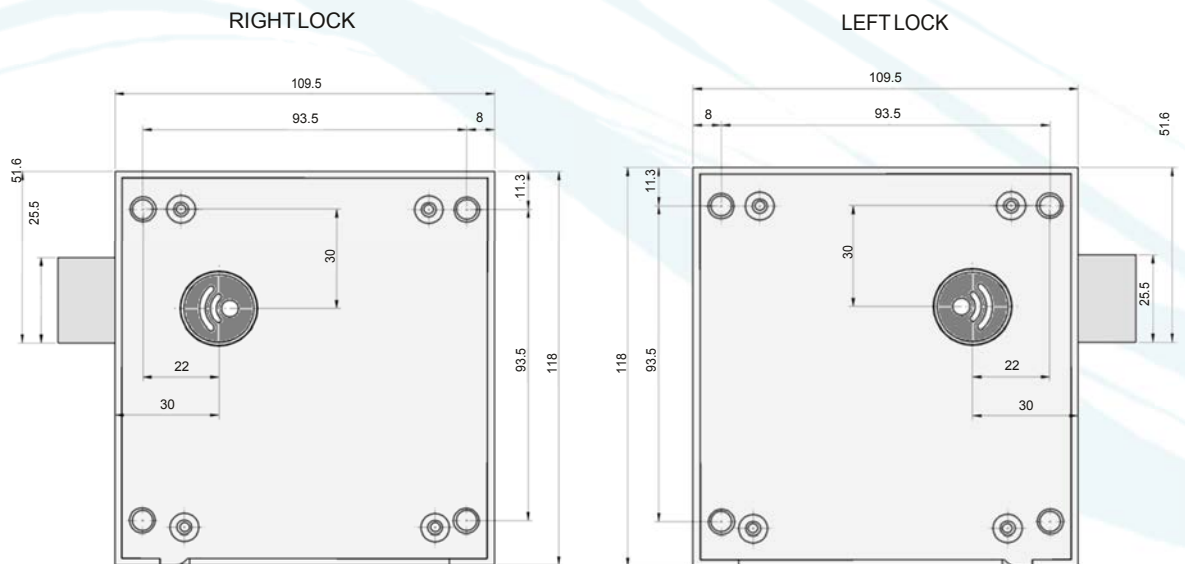
Ojmar OTS locks use RFID technology. This technology consists of interaction between a transmitter (key) and a receiver (lock). This system replaces the traditional mechanical key and cylinder.

Our locks meets all dimensional and locking standards. Therefore they can replace old locking systems without modifying cabinets or lockers.

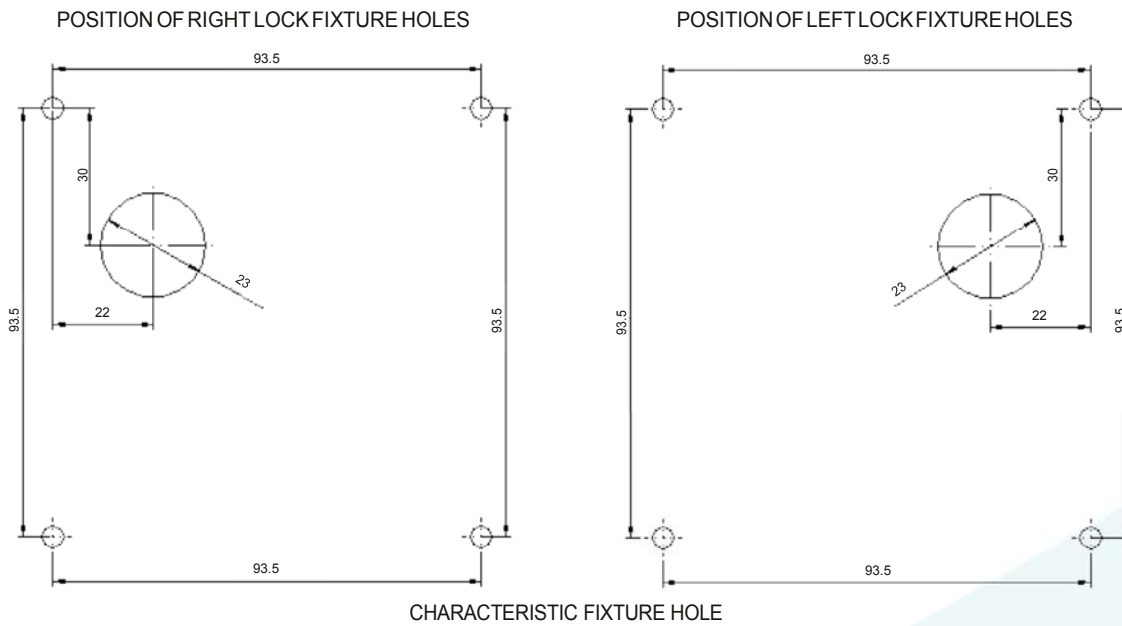


### 1.2. MEASUREMENTS AND FEATURES

The OTS proximity lock includes a fully autonomous power supply system and therefore does not require any type of wiring. Powered by 4 standard AA alkaline batteries, it has an approximate autonomy of 3 years.



OTS LOCK MEASUREMENTS



MEASUREMENTS

<b>MAIN FEATURES</b>	Technologies:	Mifare Classic, Mifare Desfire EV1 2K, 4K 8K, Ultralight, compatible with Ultralight C and technogym
		Programmable in dedicated or free mode
		Integrated time/clock control function
		Low battery detection and warning
		Buzzer and red, green and yellow LED
		Master and service key
		Compatible with OTS RT
		NFC communications between programmer and lock
<b>TECHNICAL SPECIFICATIONS</b>	Power supply	4 x 1.5v AA Alkaline batteries
	Functional temperature range	-10° to +50° (without condensation)
	Autonomy	Approximately 3 years
	Approximate weight	375g
	Availability	Right and left
<b>MECHANICAL REQUIREMENTS</b>		96 hours in a salt spray test chamber
	Cam resistance	1000 N
	Protection against solid and liquid bodies	IP55
	Protection against mechanical impact	IK09
<b>APPROXIMATE MEASUREMENTS</b>	Exterior	119.5 x 35 x 118 mm
<b>OPTIONAL ACCESSORIES</b>		NFC or commercial portable programmer
		Software
<b>ADVANTAGES</b>		Integration with other systems

### 1.3. OTS ADVANCE LOCK FOR METAL DOORS

Due to the existing interferences between the metal and RFID communications, a “rosette” must be installed in the metal door of the lockers to ensure the proper performance of the lock.



ROSETTE



To ensure a proper performance of the existing devices available in the market (keys, wrist-keys, keyfobs), please send them to Ojmar for validation.

#### 1.3.1. Protecting Rosette Installation

1. Clean door surface and make sure that the surface is dry <sup>1</sup>



Mount lock first, then rosette.

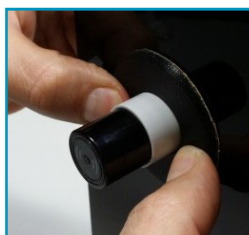
2. Peel off paper sticker.



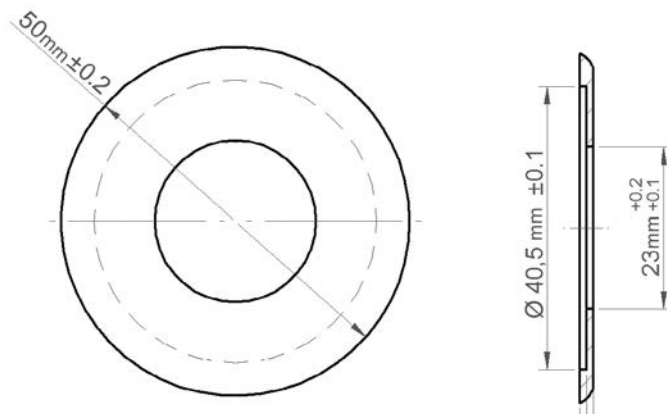
3. Put rosette over the lock nozzle.



4. Press rosette firmly against the door surface.



## 1.3.2. Rosette Dimensions

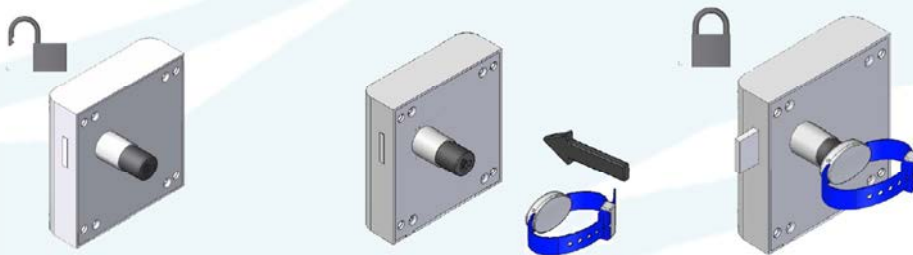


## 1.4. OPENING AND CLOSURE

The lock opening and closure process is as follows:

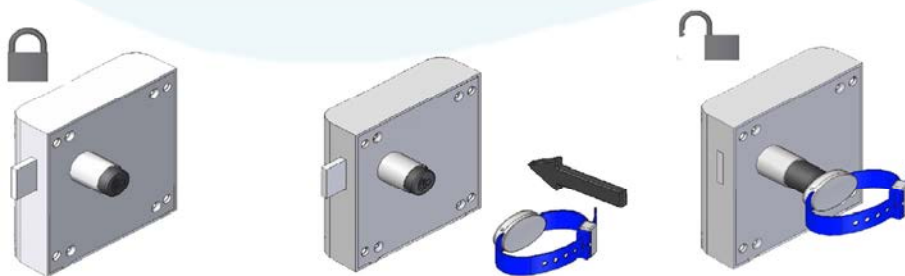
## 1.4.1. Closure

1. Bring the key towards the knob of the open lock and press the knob inwards.
2. Press the knob fully. The lock is then automatically closed, with the fixed part protruding by 6mm.



## 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: Out-of-hours access assigned, etc.) it will automatically unlock. The knob will move outwards fully.



## 1.5. TYPES OF LOCK

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).



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



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.



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.



A member may use any two of the dedicated keys to close and open.

### 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 closed and opened.
- As soon as the lock is in use, the key cannot be used in any other free lock until the first one has been released.

## 1.6. TYPES OF KEY

There is a total of 15 types of different keys.

### 1.6.1. Dedicated Key

This can only be used in a Dedicated Lock that has been programmed with the same number as the key.

### 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.



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



It can work under time zones (see Section 4.10).

### 1.6.3. Multifunction Key

A dedicated lock and up to three free locks not in use can be used.



It can work under time zones. (see Section 4.10)

### 1.6.4. Master Key

**This is used to open any type of lock. The Master key can only open the lock, leaving it free to use. Under no circumstances can it close it.**



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



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



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 remained in use by the key previously assigned to it.



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



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 sub-group (see Section 4.5 for further information on sub-groups).

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 sub-group can be used).



It can work under time zones (see Section 4.10).



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.



This key can be used in any lock type.



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.



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



It is highly recommended for the lock to be set to the correct time (see Section 1.6.12 and Section 4.12, Point 5).



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



For use exclusively by authorised personnel of the facility.



### 1.6.9. Event Collection Key

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



It is highly recommended for the lock to be set to the correct time (see Section 1.6.12 and Section 4.11, Point 3).



This key can be used on free and dedicated locks.



For use exclusively by authorised personnel of the facility.

### 1.6.10. Automatic Opening Key

This key transmits one hour of automatic opening to the lock. All locks programmed for automatic opening will be freed at the specified time.

In order to create a key of this type you must:

- Program the key (see Section 4.11).
- Use it on all of the required locks.



The knob will remain closed during automatic opening. Press the knob to release it (no key is required).



For use exclusively by authorised personnel of the facility.

### 1.6.11. Time Change Key

This key transmits the summer/winter time change to the lock. To do so, you must:

- Program the key (see Section 4.11).
- Use it on all of the required locks.



For use exclusively by authorised personnel of the facility.

### 1.6.12. Time SetKey

This key records the time and date on the lock's clock. To do so, you must:

- Program the key (see Section 4.11).
- Use it on all locks, remembering that for every block of 15 locks another minute is added to the next block.



The time recorded on the key will be the time defined by the computer at that particular moment.



The key should be reprogrammed using the OTS Management Software every 20 or 30 locks.



For use exclusively by authorised personnel of the facility.

### 1.6.13. ResetKey

This key deletes 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.



Only one reset key per facility is supplied. Should you require an additional reset key, please contact Ojmar.



For use exclusively by authorised personnel of the facility.



### 1.6.14. TestKey

This key tests the correct mechanical working order of a lock when it is factory configured.



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



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



For use exclusively by authorised personnel of the facility.

### 1.6.15. Data Card Key

In all OTS Advance systems, when the lock is deleted using a deletion key it returns to factory status. For the lock to return to functional status and be reused by the initialisation, test and free keys, etc., the Data Card key must first be passed over it. If the reading is correct, the lock will flash green just once.



Just one Data Card key is supplied for each facility. Should you require an extra Data Card key, please contact Ojmar.



For use exclusively by authorised personnel of the facility.

### 1.7. DESCRIPTION OF FLASHING LEDS

The OTS lock includes a LED on the knob. This LED lights up whenever an action is performed on it.

The colour codes are indicated in the following table:

GREEN LED	RED LED	YELLOW LED	DURATION	DURATION (TIME)	DESCRIPTION
	1 Flash		Very short	100 ms	Key reading error.
	1 Flash		Long	1 sec	Communications fault.
	1 Flash		Long	1 sec	Key checksum error.
	1 Flash		Long	1 sec	set-up key used up.
	1 Flash		Long	1 sec	Incorrect key in unused lock.
	1 Flash		Long	1 sec	Incorrect installation no.
	1 Flash		Long	1 sec	Incorrect key in dedicated or free lock.
	2 flashes		Regular	400 ms	Error on using or releasing free key.
	2 flashes		Regular (400ms=2/5s)	400 ms	Key not correctly recorded when initialising with keys.
	10 flashes		Short (200ms=1/5s)	200 ms	The key is cancelled.

GREEN LED	RED LED	YELLOW LED	DURATION	DURATION (TIME)	DESCRIPTION
	3 flashes (First)	3 flashes	Regular (400ms=2/5s)	400 ms	EEPROM deprogramming at the start of a cycle.
	3 flashes	3 flashes (First)	Very Short (100ms=1/10s)	100 ms	Mechanical error.
		3 flashes	Regular (400ms=2/5s)	400 ms	Low battery detection. Replace batteries.
		3 flashes	Very Long	2 sec	Battery used up. Replace batteries. Lock cannot be used until battery replacement.
2 flashes		1 flash (First)	Short	200 ms	Cancellation key passed correctly over lock.
2 flashes		10 flashes (First)	Regular	400 ms	Correct initialisation with keys.
2 flashes		1 flash (First and long)	Regular	400 ms	Key deleted OK.
3 flashes			Regular	400 ms	Communication with PP OK.
10 flashes			Short	200 ms	Get events from lock to key.
1 flash			Very long	2 sec	Date and time recorded correctly on lock.
1 flash			Very long	2 sec	Winter/summer time changes recorded correctly on lock.

## 1.8. SOFTWARE CODES

Each action taken on a lock has a description. This information will be recorded on the event keys (see Section 4.14.1) 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
Low battery detection	Opening from programmer
Key rejected: Checksum incorrect	Date and time updated from programmer
Time change key	Invalid date and time
Key rejected: Key not valid or not defined	Key time set
Key rejected: Key in use	Service key opening
Automatic opening key	Mechanical fault
Events read from programmer	Key rejected: Key cancelled on blacklist
Events read from key	Master subgroup key closure
No event recorded	Hour back
Automatic opening	Service key closure
Hour on	Key rejected: Outside time zone
Update programmer	Memory deleted with key

## BATTERIES



### Caution!

Explosion risk in case of change to a different type of battery  
Move those batteries away according to the instructions given

### 1.9. REPLACEMENT OF THE LOCK BATTERY

Ojmar locks automatically detect low battery levels. When this occurs, the yellow LED flashes 3 times for each opening or closure cycle performed.

Up to 9 opening and closure cycles are possible as of the time when the low battery is detected. On the tenth cycle, the lock can only be opened (never closed). This prevents the lock battery from being used up and the lock from being blocked.

Follow the steps below to replace the batteries:

1. Remove the torx screw.
2. Open the battery cover.
3. Remove the battery holder.
4. Replace the four AA batteries (two on each side of the support).
5. Insert the battery holder.



The cover should fit easily. To do so, first insert the wire and then the battery holder.

6. Fit the cover and tighten the torx screw.



The batteries should be replaced within every 3 years.



The batteries should be replaced within a maximum of 2 minutes so that the lock does not lose its configuration.

# 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:

## 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.



Whenever an operation is performed between the NFC programmer and the lock, the programmer updates the time of the lock.



FRONT VIEW

RIGHT-HAND SIDE VIEW

FRONT VIEW

❶ **Touch screen.**

❷ **Key reading area:** The keys must be placed in this area so that they can be read/recorded by the programmer.

❸ **Screen On/Off.**

- ✦ **On:** Press the button quickly (a beep will be heard).
- ✦ **Off:** Keep the button pressed down for 4 seconds.

❹ **PC Connection:** USB socket used to connect the programmer to the Computer to download data collected by it.



A USB cable is supplied with the programmer.

❺ **Jack Connection.**

❻ **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.

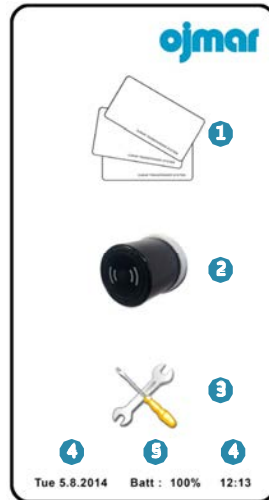


## MEASUREMENTS

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, compatible with Ultralight C and technogym
		Perform a test to check the configuration of the lock and the status of the batteries
	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, compatible with Ultralight C and technogym
		Perform a test to check the configuration of the lock and the status of the batteries
		Load the required configuration in the lock
		Update the configuration in the lock
		Download the events to have occurred in the lock
		Synchronisation with the PC time
	TECHNICAL SPECIFICATIONS	Power supply
Mains charging: Use 5v -1A charger		
Functional temperature range		-10° to +50° (without condensation)
Approximate weight		380g
APPROXIMATE	Exteriores (largo x ancho x alto)	202 x 89 x 39 mm
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. This information will be used when recording the locks and keys.



The date and time are configured automatically when the programmer is connected to the PC and synchronised with the OTS Management Software via the events window (see Section 4.8).

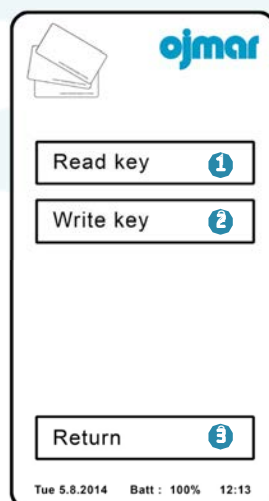
⑤ Battery level: Displays the programmer battery level.



The battery level is displayed for a few seconds when the screen is switched on.

### 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 area of the programmer, the information associated to it is displayed.



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

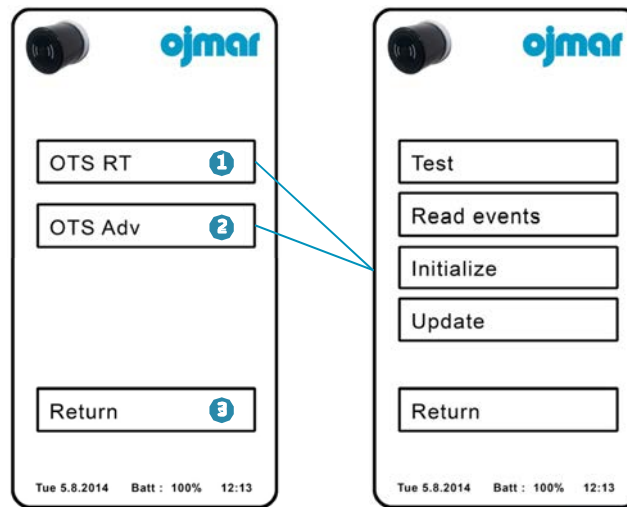


**2 Write Key:** Records the configuration recorded in the programmer on the key. A "Free" type key is recorded by default for 1 lock and within Subgroup 0.

**3 Return:** Returns to the main menu.

## 2.2.3. Operations with Locks

This screen displays the following buttons:



1 and 2 Displays the following submenu for OTS type locks (RT and Advance):

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



The test must be performed in line with Step 6 of Section 2.2 of this manual.

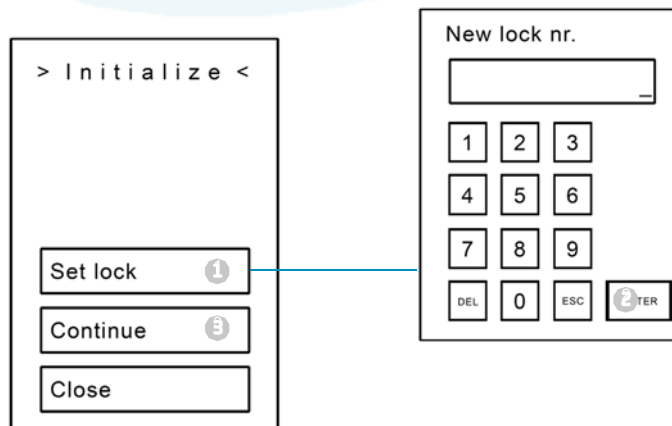
- ✦ Read events: Reads the events recorded on the lock. These events may be subsequently viewed from the Events screen of the OTS Management Software (see Section 4.8.1).
- ✦ Initialize: This menu option allows for locks to be initialised.



The locks must be previously loaded in the programmer (see Section 4.6).

To do so:

- 1 Press Set lock.
- 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 2.2.



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

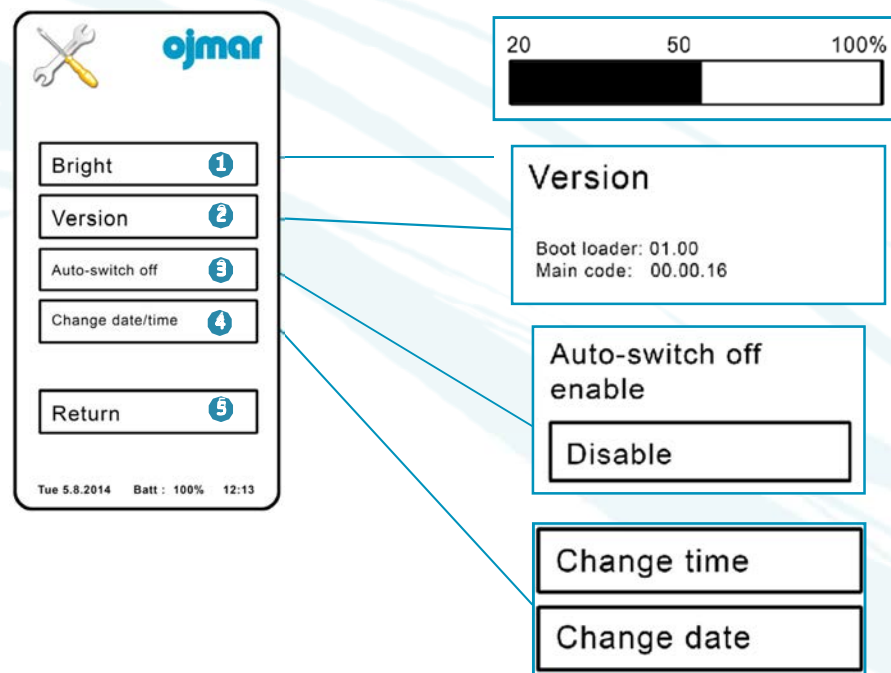
① Load the locks to be modified into the Ojmar NFC programmer (step ⑤ of Section 4.6).

② Update the locks in line with Step ⑥ of Section 2.2.

③ **Return:** Returns to the main menu.

### 2.2.4. Configuration

This screen displays the following buttons:



① **Bright:** 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-switch off:** On pressing this button, the programmer screen will switch off automatically after approximately 2 minutes of inactivity.

④ **Change date/time:** Allows to change the date and time of the programmer.

⑤ **Return:** Returns to the main menu.

### 2.3. DESKTOP READER

The CnReader programmer allows for keys to be read and recorded using the Ojmar OTS Management Software.



The CnReader programmer 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.

#### MEASUREMENTS

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	-10° to +50° (without condensation)
	Approximate weight	83g
APPROXIMATE MEASUREMENTS	External (length x width x height)	116 x 67 x 14 mm



## 2.4. WINDOWS CONTROLLER INSTALLATION FOR CNREADER PROGRAMMER

The controller 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)

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

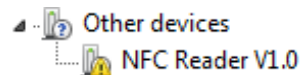
1. Connect the programmer to the USB port on your PC.
2. Windows will detect the programmer and will display the following messages:



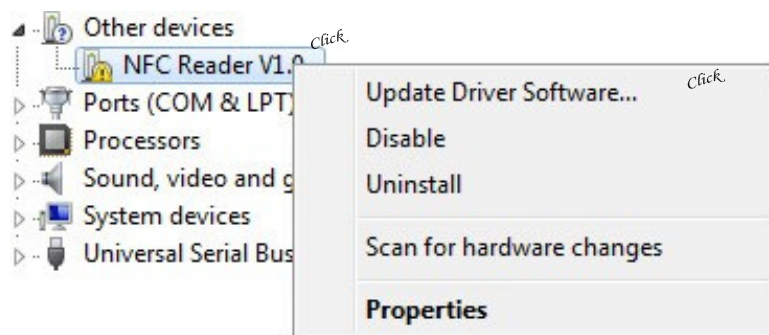
3. Windows cannot automatically install the windows controller. It must be installed manually.
4. To do so, access the Windows “Device manager”. This option is located in the “Control Panel”.



5. Locate the following error on the list:

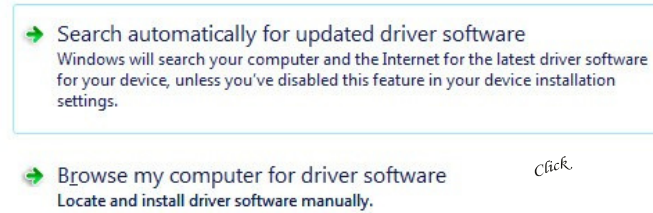


6. Right-click on the conflicting device and select “Update driver software”:

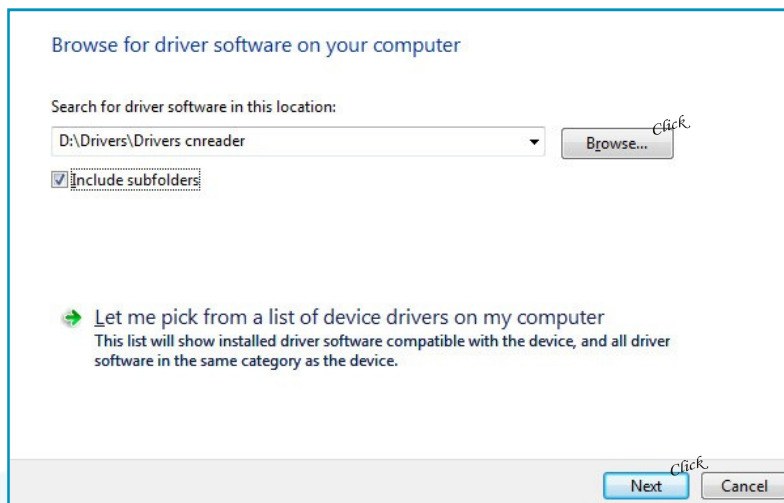


7. Select "Browse my computer for driver software".

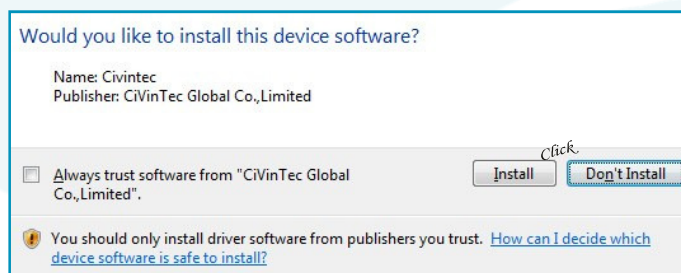
How do you want to search for driver software?



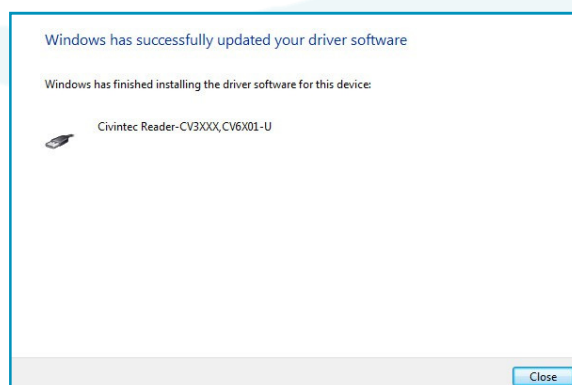
8. Click on "Browse" and locate the "Drivers CnReader" folder on the CD supplied by Ojmar.



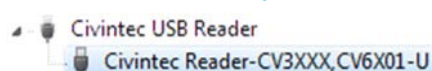
9. Confirm controller installation by clicking on the "Install" button.



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



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 controller supplied are compatible with the following operating systems:

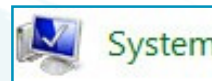
- Windows 2000.
- Windows XP (32 and 64 bit).
- Windows Vista (32 and 64 bit).
- Windows 7 (32 and 64 bit).

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

 Install the controller before connecting the programmer to the PC.

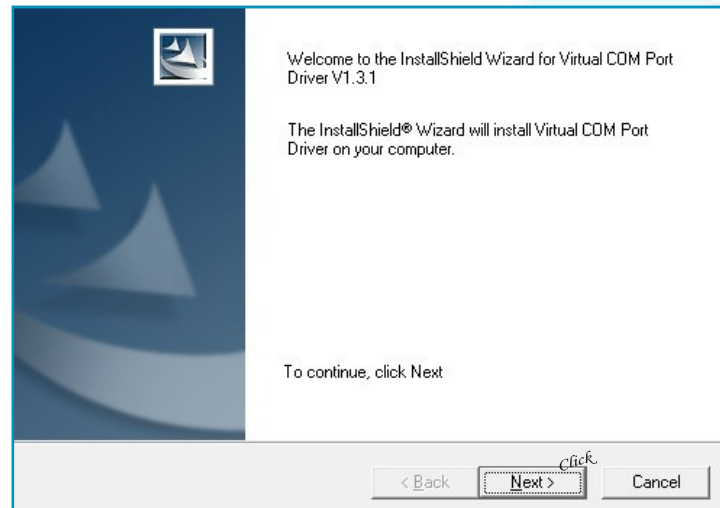
1. Locate the “Drivers NFC” folder on the CD supplied by Ojmar.
2. There are two files in this folder. One for 32-bit Operating Systems (VCP\_V1.3.1\_Setup) and another for 64-bit (VCP\_V1.3.1\_Setup\_x64). Double click on the file corresponding to your operating system.

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”.



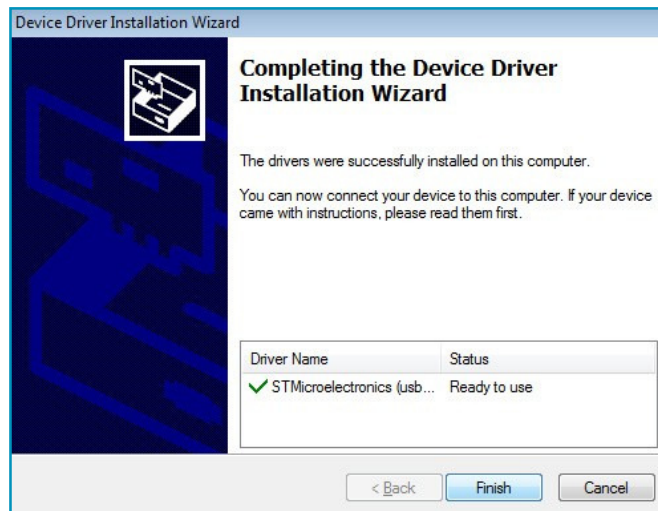
Among all of the options displayed, there is one called "System type". This will indicate “32-bit operating system” or “64-bit operating system”.

3. The installation program will then begin. Click on “Next”.



4. Once installation is complete, click on “Finish”.

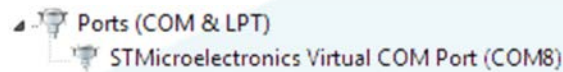
- The following screen will be displayed if the installation is correct.



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



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



# 3. INFOTERMINAL

### 3.1. INFOTERMINAL

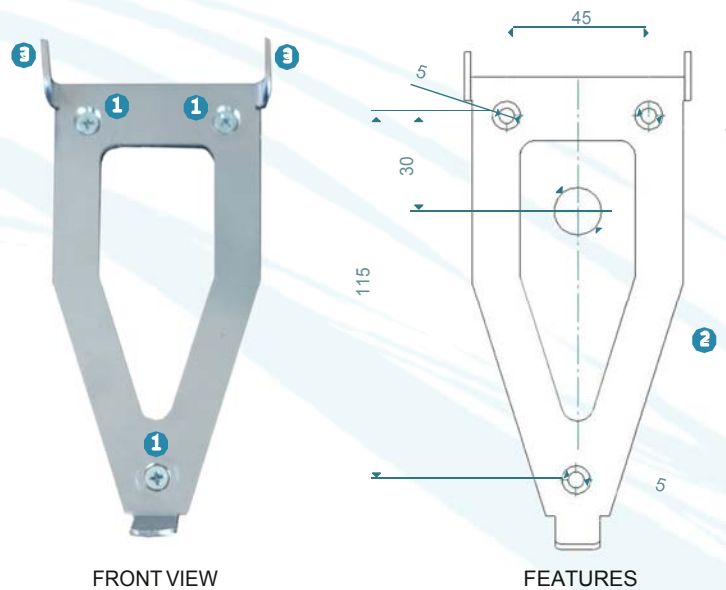
The Ojmar Infoterminal provides users with information on the locker number or numbers assigned or occupied by a key. It is wall mounted to give users easy access to key information.

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:



❶ **Holes:** These are used to mount the bracket on the wall with the screws.

❷ **Cable lead-through hole:** This is the hole that the power cable passes through to the Infoterminal.



It must be at least 15 mm in diameter.

❸ **Plates:** These are used to connect the Infoterminal to the bracket.



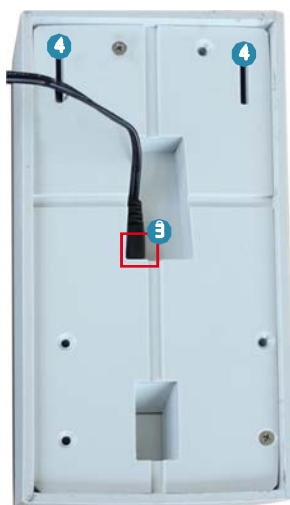
All bracket measurements are shown in millimetres.

### 3.1.2. Infoterminal Features

- The features of the Infoterminal are indicated below:



FRONT VIEW



REARVIEW



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.



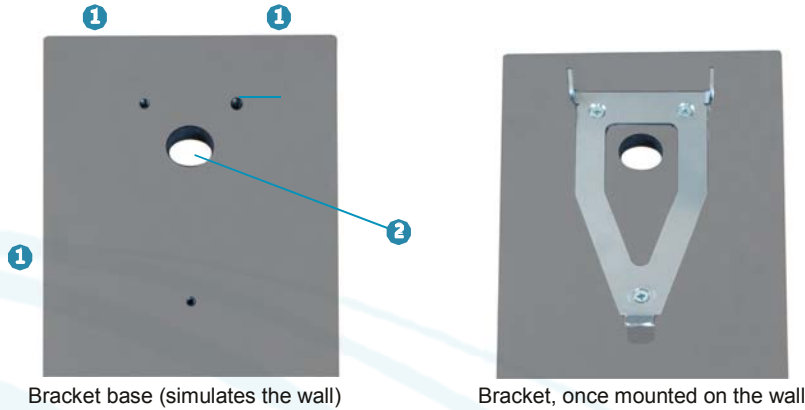
A power cable is supplied with the Infoterminal.

#### 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		

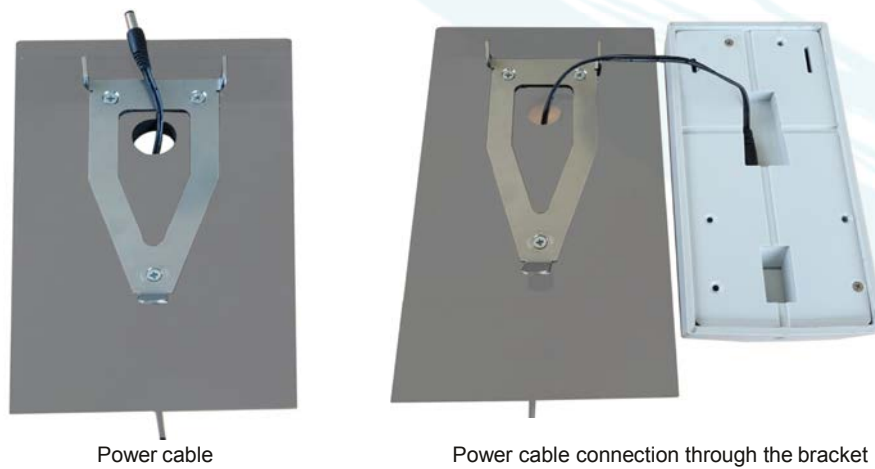
3.1.3. Installation

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.

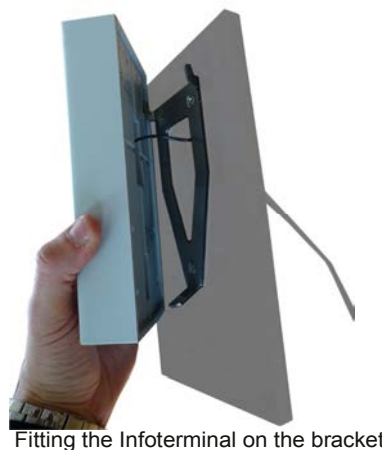


- ① Infoterminal mounting holes.
- ② Hole to pass through the power cable (minimum 15 mm in diameter).

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



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





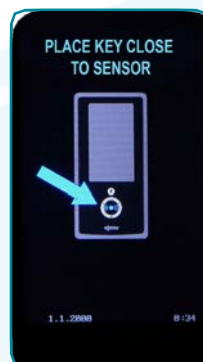
4. Lastly, adjust the Infoterminal by tightening the screw located at the bottom of it.



Final adjustment of the Infoterminal

### 3.2. USE OF THE INFOTERMINAL

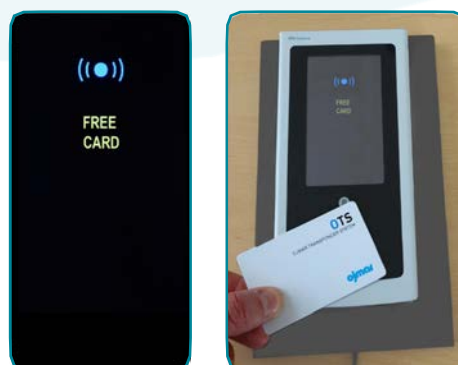
The Infoterminal starts up and the main screen is displayed once it has been connected to the mains:



Main Infoterminal screen

The Infoterminal recognises free, fixed 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:



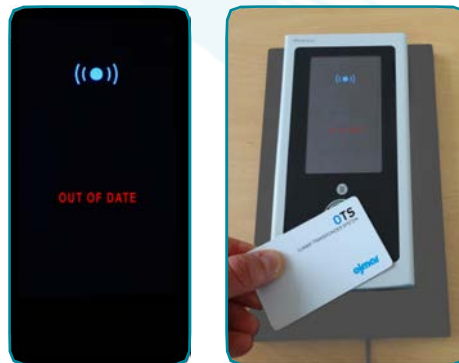
Invalid key message

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



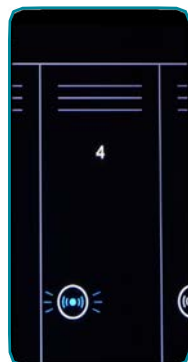
The Infoterminal can display up to 4 locker numbers.

- ✦ The following image is displayed if the key has expired.



Expired key message

- ✦ Expiry (see Point 4 "Date/Time" in Section 3.3) can be displayed/hidden.



Expiry not displayed



Expiry displayed

### 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:

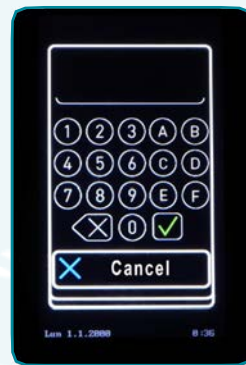


Access to the main menu

On pressing the 3 corners of the Infoterminal, it displays a screen where the access code to main menu provided by Ojmar must be entered.



In case of difficulty 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:

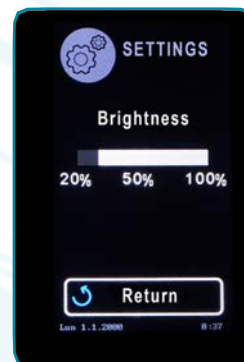
- English.
- Spanish.
- French.
- German.



Change language

2 Brightness:

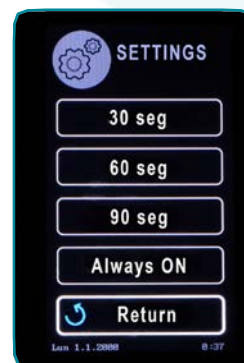
If brightness is selected, the Infoterminal displays a screen where its brightness can be changed.



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**.



Main date/time menu screen



Date change screen



Time change screen

# 4. OTS MANAGEMENT SOFTWARE

#### 4.1. COMPUTER REQUIREMENTS

MAIN FEATURES	Management of all types of Ojmar electronic lock
	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
	Over 100 time zones available
	Independent management of different zones or areas of the facility
	Management of time periods to limit the use of user cards
	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 (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 database

## 4.2. SOFTWARE INSTALLATION

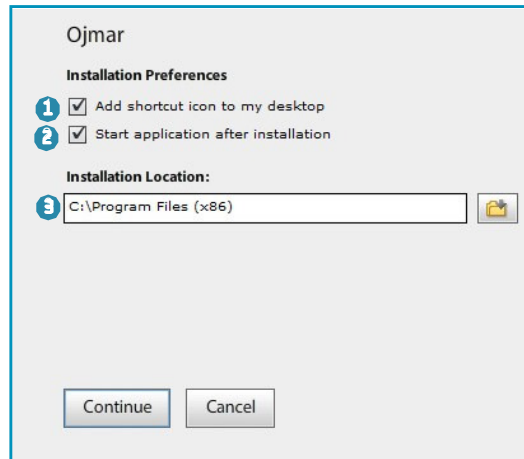


You must have Administrator permissions in the system in order to install the application. Consult the system administrator if you do not have enough permission to install the software.

Locate the “ojmar” file on the CD unit of the system and double click on it.



The installation process will begin automatically:



The programme allows for:

- 1 A shortcut to be created on the desktop on completion of the installation.
- 2 The application to start automatically on completion of the installation.
- 3 The program installation route to be selected in the system.

Once these options have been selected, click on the continue button.



Adobe AIR could ask for permission to make changes to the system. Should this occur, allow it to do so by click on “Yes”.

A shortcut is created on the desktop once the installation is complete:



If this option has not been ticked in the installation program, the program can be accessed via the Windows "Programs" menu.



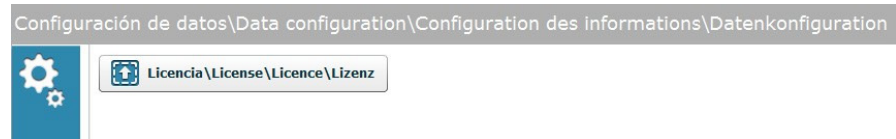
Sometimes on accessing the program, if you have a permanent internet connection, you will be asked to update Adobe Air. Updating is not necessary but is possible.



### 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:

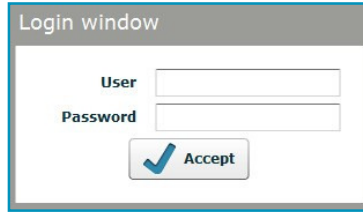
1. Click on the following icon:



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

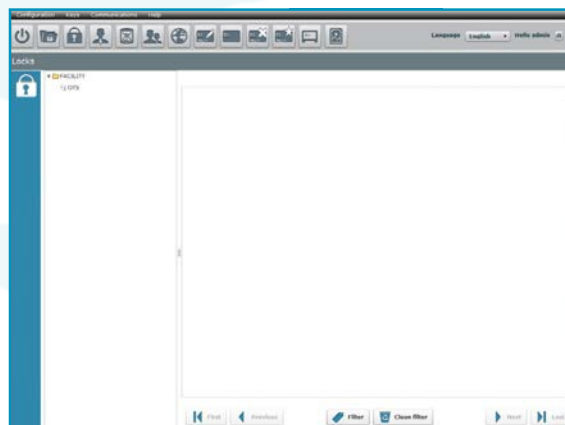
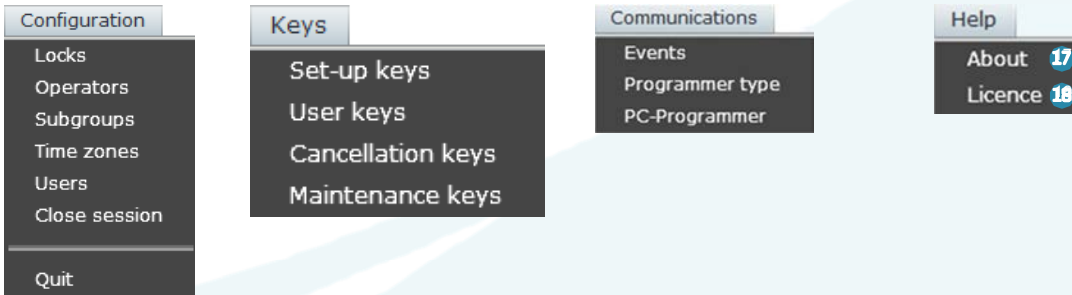
#### 4.4. ACCESSING THE APPLICATION, CONFIGURATION, START-UP AND GENERAL OPTIONS

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 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:

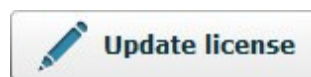


The main screen displays the locks screen by default . See Section 4.7.

- ❶ **Quit:** Closes the session and the application.
- ❷ **Subgroups:** (see Section 4.5)
- ❸ **Locks:** (see Section 4.6)
- ❹ **Operators:** (see Section 4.7)
- ❺ **Events (with NFC Programmer only):** (see Section 4.8)
- ❻ **Users:** (see Section 4.9)
- ❼ **Time Zones:** (see Section 4.10)
- ❽ **Set-up Keys:** (see Section 4.11)
- ❾ **User Keys:** (see Section 4.12)
- ❿ **Cancellation Keys:** (see Section 4.13)
- ⓫ **Maintenance Keys:** (see Section 4.14)
- ⓬ **Programmer Type:** (see Section 4.15)
- ⓭ **PC-Programmer (with NFC Programmer only):** (see Section 4.16)
- ⓮ **Language:** One of the following languages can be selected:
  - ✦ Spanish.
  - ✦ English.
  - ✦ German.
  - ✦ French.
- ⓯ **User:** Displays the user name used to access the application.
- ⓰ **Close session:** Closes the session started and displays the access window again.
- ⓱ **About:** Displays the Management Software version installed.



- ⓲ **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.







## 4.6. LOCKS

This window displays all existing locks.

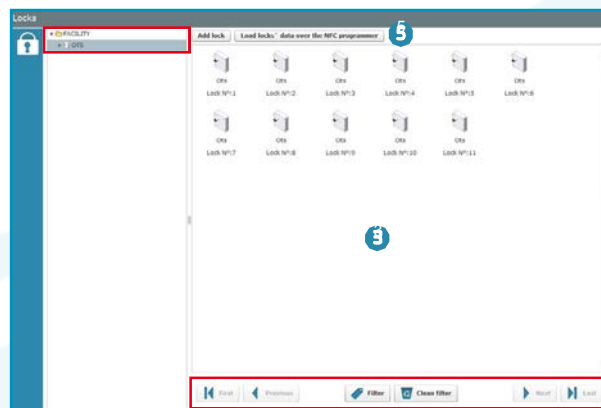
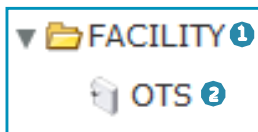


The "Locks" window is displayed by default when the application starts.

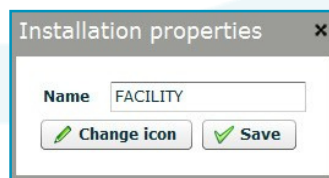
Access this screen via the "Configuration/Locks" menu or by clicking on the following button on the main screen:



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.



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 created.



Ots

Lock N°: 1

- 4 **Browse by locks:** This enables you to move around the list of locks and apply a filter to simplify the search.
- 5 **Update:** The locks on which events are to be read or initialised must be loaded to the memory of the Ojmar NFC programmer.



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

To do so, click on this button **Load locks' data over the NFC programmer**, select the locks to be loaded and click on the **Update** button.

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



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

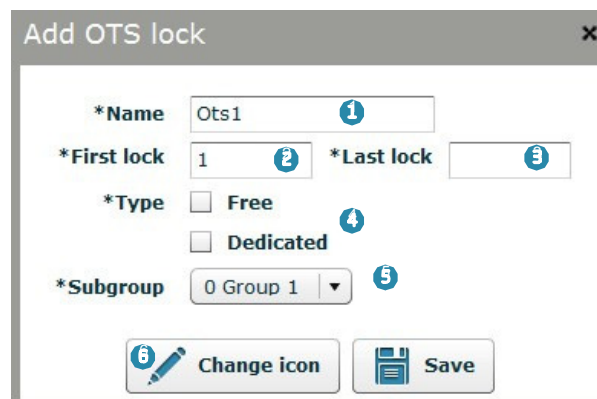
This process must be performed when:



- ✦ 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 **Add lock** or double click on the **OTS** icon. The following screen will be displayed:



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



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

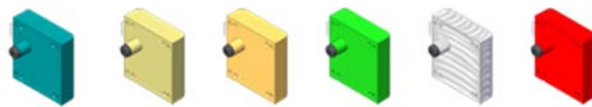
2 **First Lock:** Indicates the first lock number to be created.

3 **Last Lock:** Indicates the last lock number to be created.

4 **Type:** You must indicate whether the lock is Free (see Section 1.4.2) or Dedicated (see Section 1.4.1).

5 **Subgroup:** Indicates the subgroup to be assigned to the lock (see Section 2.5).

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.



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

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



Add OTS lock ✕

\*Name

\*First lock  \*Last lock

\*Type  Free  
 Dedicated

\*Subgroup  ▼



### 4.6.2. Edit / Delete Lock

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



**Edit OTS lock** [X]

\*Name

\*First lock

\*Type  Free  
 Dedicated

\*Subgroup

The following information can be modified:

- Name of the lock
- Number of the lock.



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.

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 CD 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.

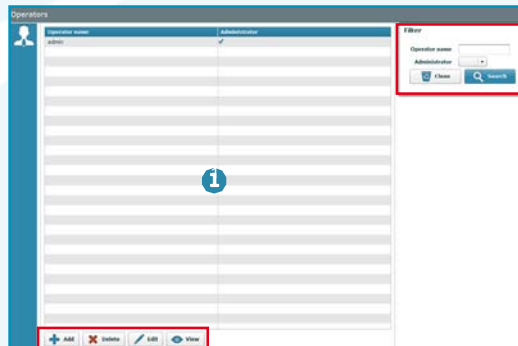


There must be at least one administrator user in the application.

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 1 window 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.**



The password must contain at least 4 characters.

**3 Repeat password:** This must match the **2** password.

**4 Administrator:** On ticking this box, all permissions from the **5** list will be assigned to the user.

**5 Permissions list:** If the **4** Administrator tab 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

✦ Time zones:

- View time zones (this box must be ticked in order to tick the subgroup boxes)
  - Modify time zones
  - Add time zones
  - Delete time zones

- ✦ 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)
    - Write set-up keys
- ✦ User keys:
  - View user keys (this box must be ticked in order to tick the subgroup boxes)
    - Write user keys
- ✦ Cancellation keys:
  - View cancellation keys (this box must be ticked in order to tick the subgroup boxes)
    - Write cancellation keys
- ✦ Maintenance keys:
  - View maintenance keys (this box must be ticked in order to tick the subgroup boxes)
    - Write 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 4.14.1). 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:

The screenshot shows the Events screen with the following components:

- 1 List of events:** A table with columns: Lock, description, user, key, date.
- 2 Configuration:** Communications port (dropdown), Programmer type (Nfc dropdown), and a refresh icon.
- 3 Filter:** Historical (No dropdown), Lock, Date, User, Key, and Description (dropdown) fields, with Clean and Search buttons.
- 4 Read events:** Button with an hourglass icon.
- 5 Delete event list:** Button with a red X icon.
- 6 Print events:** Button with a printer icon.
- 7 Export events to a file:** Button with a document icon.

**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.
- + Keyused.
- + Date of theevent.

**2 Configuration:** This displays the configuration defined in Section 4.15 or establishes a new connection with the programmer by clicking on the following icon  (see Section 4.17).

**3 Filter:** This allows for the results of the **1** window to be filtered, displaying only the criteria ticked in the fields described here.

**4 Read events:** See Section 4.8.1.

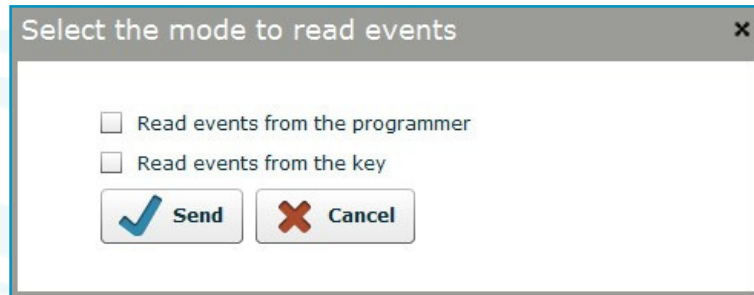
**5 Delete event list:** Deletes the events displayed in the **1** window.

- ⑥ **Print events:** Generates a document containing the events displayed in the window and displays it on the screen. This list can be printed or saved in pdf format. ①
- ⑦ **Export events to a file:** Exports the events displayed in the window to an Excel file.

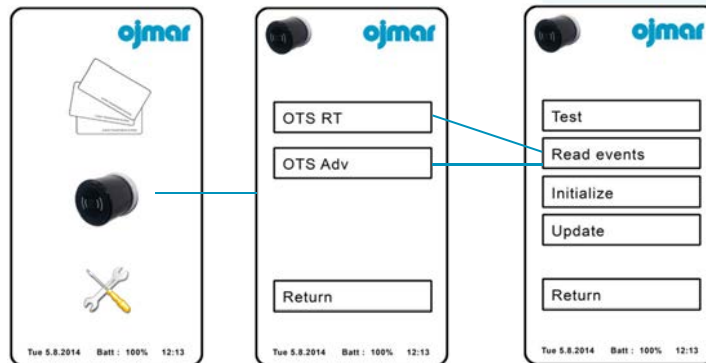
#### 4.8.1. Read events

It is possible to read events from an events key (see Section 4.14.1) 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 Section 4.6, point ⑤)
  - ✦ Connect the programmer on any of the locks added in the previous point and click on the "Read events" button of the programmer.



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 above figure. Finally tick the "Read events from the programmer" tab and click on Send.

- Read events from the key: In order to read events from an events key, place the key in the reading area of any of the two programmers and click on "Send".

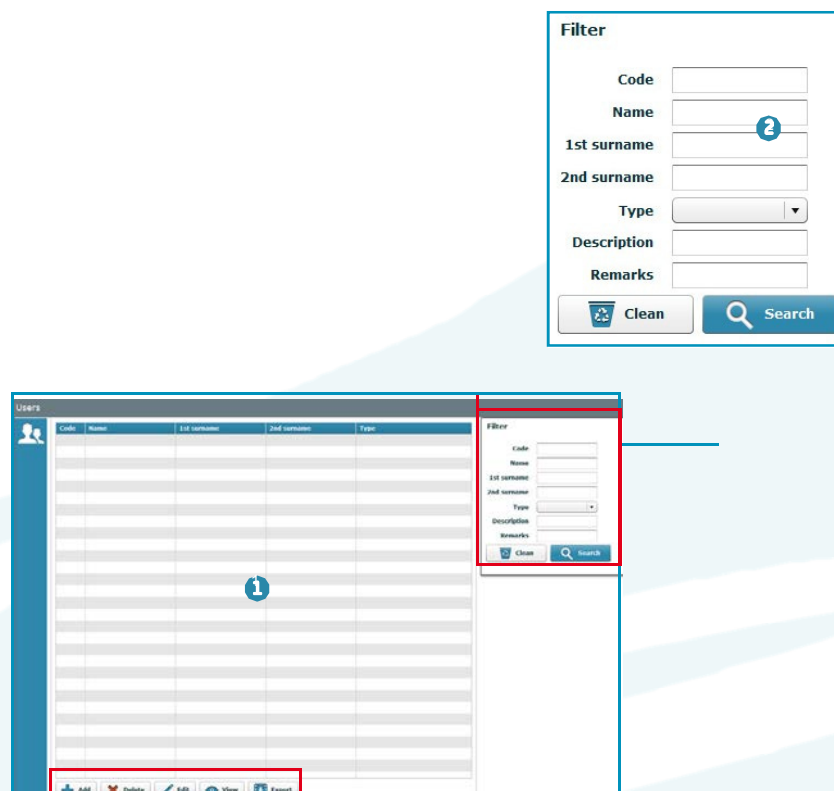
## 4.9. USERS

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 1 window 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.



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

- ❶ **Name:** User name.
- ❷ **1st and 2nd surname:** User's Surnames, the first being mandatory.
- ❸ **Lock type:** Type of lock associated to the user.
- ❹ **Expiry date and time:** Precise date and time when the user account will expire.



The keys associated to the user will be disabled from this time and may not be used in any lock.



The expiry date and time must be entered.

- ❺ **Description and Remarks:** Optional fields to add extra information on the user.
- ❻ **Time Zones:** Displays the time zones assigned to the user (see Section 4.10).




Up to a maximum of 5 time zones can be assigned to each user.

### 4.10. TIME ZONES

Time zones are used to define the period of hours during which the keys can be used. User keys with an associated time period may access the lock within the times specified and will be rejected if access is attempted outside these times.

The following key types can have a time zone associated to them:

- Free.
- Multifunction.
- Master subgroup.

 The time on the locks must be correctly set for the Time Zones to function correctly (see Section 4.11).

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



The main Time Zones screen displays the following information:

The screenshot shows the 'Time zones' interface. On the right, there is a 'Filter' panel with the following fields: 'Zone no.' (text input), 'Name' (text input), 'Days' (checkboxes for Mon, Tue, Wed, Thu, Fri, Sat, Sun), and 'Description' (text input). Below the filter are 'Clean' and 'Search' buttons. A red box highlights the filter panel, with a circled '2' next to the 'Thu' checkbox. On the left, a table with columns 'Zone no.', 'Name', 'Interval', and 'Days' is shown. A red box highlights the table area, with a circled '1' in the center. At the bottom of the table, there is a toolbar with icons for adding, deleting, editing, and viewing associated keys.

A horizontal toolbar with four buttons: '+ Add' (with a circled '3' below it), 'X Delete' (with a circled '4' below it), a pencil icon 'Edit' (with a circled '5' below it), and a key icon 'Associated keys' (with a circled '6' below it).

- ❶ **List all time zones created:** This list displays the number and name of the zone, time period and days of the week when it is operational.
- ❷ **Filter Window:** This allows for the results of the **❶** window to be filtered, displaying only the criteria ticked in the fields described here.
- ❸ **Add:** Adds a new Time Zone (see Section 4.10.1).
- ❹ **Delete:** Deletes a Time Zone from the list. To do so, select it and click on this button.
- ❺ **Edit:** Allows for the Time Zone parameters to be modified (see Section 4.10.1). To do so, select a Time Zone from the list and click on this button.
- ❻ **Associated keys:** Displays a full list of all keys associated to the Time Zone.



Whenever a key is programmed and a Time Zone assigned to it, this list is updated.

#### 4.10.1. Add Time Zone

Fill in the following fields to add a new Time Zone.



A total of 5 different Time Zones can be added.



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

- ❶ **Zone no.:** Alphanumeric field that the application fills in automatically.
- ❷ **Name:** Name of the Time Zone.



A name should be given that helps to clearly identify the Zone (e.g. "Morning Group", "Afternoon Group").

- ❸ **Initial Interval:** Time from when operations are possible.
- ❹ **Final interval:** Time until when operations are possible.



The time format of "Initial Interval" and "Final interval" is 24h.

- 5 **Days:** Establishes the days of the week when the Time Zone will be applied.
- 6 **Description:** A more detailed description of the Time zone can optionally be added.

We create a new Time Zone called “Morning”. This key is operational from 7.45 a.m. to 1.00 p.m., from Monday to Friday.



The screenshot shows a dialog box titled "Add time zone" with a globe icon on the left. The form contains the following fields and controls:

- \*Zone no.:** A text input field containing "01".
- \*Name:** A text input field containing "Morning".
- \*Initial interval:** Two dropdown menus showing "07" and "45".
- \*Final interval:** Two dropdown menus showing "13" and "00".
- \*Days:** A row of checkboxes for "Mon", "Tue", "Wed", "Thu", "Fri", "Sat", and "Sun". The checkboxes for Mon, Tue, Wed, Thu, and Fri are checked.
- Description:** A large empty text area.
- Buttons:** "Save" and "Cancel" buttons at the bottom right.

### 4.11. 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 their properties.

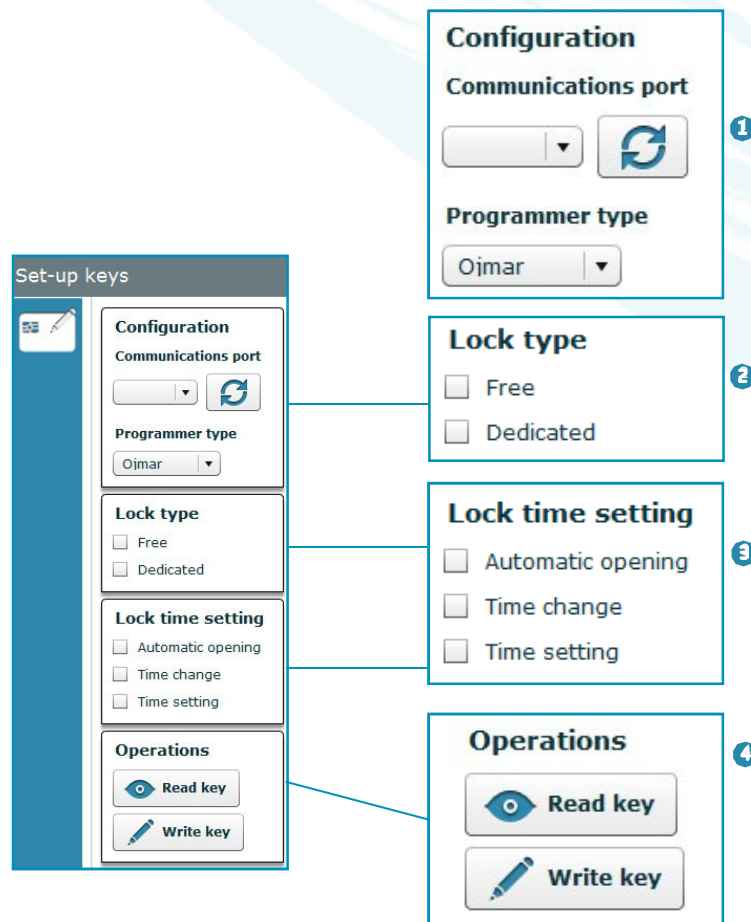
Set-up keys can:


- Configure one or several "Free" type locks.
- Configure one or several "Dedicated" type locks.
- Assign an automatic opening time to the lock.
- Change the time zone of the lock.
- Set the time on the lock.

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



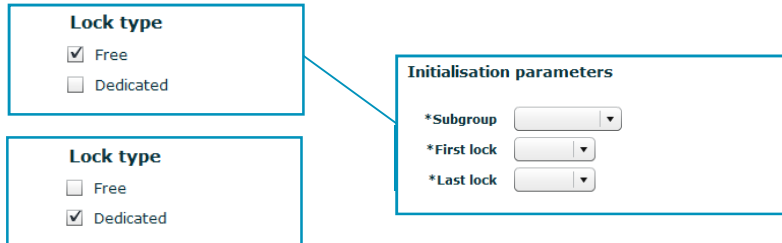
The main Time Zones screen displays the following information:



1 **Configuration:** This displays the configuration defined in Section 4.15 or establishes a new connection with the programmer by clicking on the following  (see Section 4.17).

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.



The image shows a software interface for configuring locks. On the left, there are two panels, each titled 'Lock type'. The top panel has a checked box for 'Free' and an unchecked box for 'Dedicated'. The bottom panel has an unchecked box for 'Free' and a checked box for 'Dedicated'. To the right is a panel titled 'Initialisation parameters' containing three dropdown menus: '\*Subgroup', '\*First lock', and '\*Last lock'. A blue line connects the top 'Lock type' panel to the 'Initialisation parameters' panel.



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



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 **Lock time setting:** Creates a key with the time and date defined on the PC at that time.



Use it on all locks, remembering that for every block of 15 locks another minute is added to the next block.

4 **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.

## 4.12. RECORD 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:

The screenshot shows the 'Configuration of the key' screen with the following elements:

- 1 Configuration:** A 'Communications port' dropdown menu with a refresh icon.
- 2 Free key type:** A 'Key type' section with 'Free' selected.
- 3 Dedicated key type:** A 'Key type' section with 'Dedicated' selected.
- 4 Multifunction key type:** A 'Key type' section with 'Multifunction' selected.
- 5 Operations:** A section with 'Read key' and 'Write key' buttons.

The main screen also includes fields for 'Lock number', 'User', 'Expiry date', 'Expiry time', 'Prohibition', 'Subgroup', 'Time zones', and 'Interval'.

- 1 **Configuration:** This displays the configuration defined in Section 3.15 or establishes a new connection with the programmer by clicking on the following icon .
- 2 **Free key type:** See Section 4.12.1.
- 3 **Dedicated key type:** See Section 4.12.2.
- 4 **Multifunction key type:** See Section 4.12.3.
- 5 **Operations:** This allows for the contents of the key to be read or for the values entered in Points 2, 3 and 4 to be recorded.

## 4.12.1. WriteFreeKey



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

**Configuration of the key.**

\*Lock number  1

User

Expiry date

Expiry time  :

Prohibition

\*Subgroup  0 Group 1 2  
 1 Group 2

**Time zones**

Morning 6

Interval

[0H]  [24H]

Days  M  T  W  T  F  S  S



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

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



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 **Expiry Date/Time:** Assign an expiry date and time to the key.

5 **Prohibition:** Where an expiry date and time have been defined, the following restrictive actions can be added to the key:

- ✦ **None:** No restriction will be applied as of the expiry date/time.
- ✦ **Opening:** The locker may be closed but not opened as of the expiry date/time.
- ✦ **Closing:** The locker may be opened but not closed as of the expiry date/time.
- ✦ **Opening and closing:** The locker may be neither opened nor closed as of the expiry date/time.

6 **Time zones:** This allows for up to a total of 5 time zones per key to be defined (see Section 4.10).



### 4.12.2. Write Dedicated Key



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

**Configuration of the key.**

\*Associated lock  ❶

Repeat fixed lock  ❷

User  ❸

Date  ❹

Time  :  ❺

Prohibition  ❻



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

- ❶ **Associated lock:** Displays a list of dedicated locks that can be assigned.
- ❷ **Repeat fixed 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.
- ❸ **User:** A previously created user can be selected for greater control and information on the key (see Section 4.9).
- ❹ **Expiry Date/Time:** Assign an expiry date and time to the key.
- ❺ **Prohibition:** Where an expiry date and time have been defined ❹, the following restrictive actions can be added to the key:
  - ✦ None: No restriction will be applied as of the expiry date/time.
  - ✦ Opening: The locker may be closed but not opened as of the expiry date/time.
  - ✦ Closing: The locker may be opened but not closed as of the expiry date/time.
  - ✦ Opening and closing: The locker may be neither opened nor closed as of the expiry date/time.



Dedicated keys are not subject to Time Zones.

## 4.12.3. Write MultifunctionKeys



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




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

- 1 **Lock number**: 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.
- 4 **Repeat fixed 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).
- 6 **Expiry Date/Time**: Assign an expiry date and time to the key.
- 7 **Prohibition**: Where an expiry date and time have been defined, the following restrictive actions can be added to the key:
  - ✦ **None**: No restriction will be applied as of the expiry date/time.
  - ✦ **Opening**: The locker may be closed but not opened as of the expiry date/time.
  - ✦ **Closing**: The locker may be opened but not closed as of the expiry date/time.
  - ✦ **Opening and closing**: The locker may be neither opened nor closed as of the expiry date/time.
- 8 **Time zones**: This allows for up to a total of 5 time zones per key to be defined (see Section 4.10).



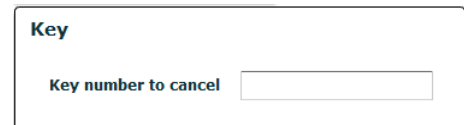
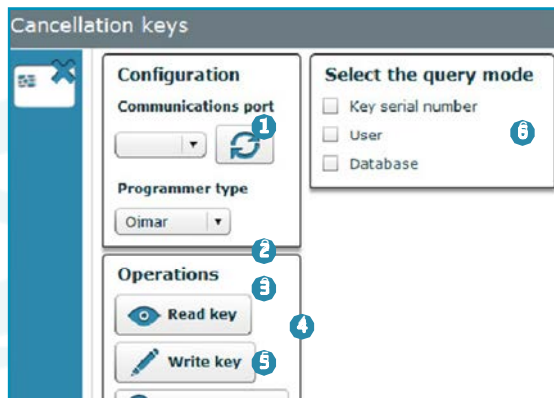
The time restriction will only apply to Free locks that may have the multifunction key assigned.

### 4.13. 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:



- ❶ **Configuration:** This displays the configuration defined in Section 4.15 or establishes a new connection with the programmer by clicking on the following (see Section 4.16).
- ❷ **Read key:** This allows for the key to be read, displaying its contents on the screen.
- ❸ **Write key:** Records the value selected in Point ❶ on the key.
- ❹ **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 .
- ❺ **Clean:** Clear the fields ticked on the screen.
- ❻ **Query mode:** Allows for the type of cancellation key to be recorded to be searched and selected:

- ✦ Key serial number: Enter the serial number of the key to be cancelled.



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.

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 .



Key serial number	Name	1st surname	2nd surname	Date	Prohibition	Cancelled
BAA07FCF	User 1	User 1				No
168ABGH1A	User 1	User 1				

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

#### 4.14. 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:

- ❶ **Configuration:** This displays the configuration defined in Section 3.15 or establishes a new connection with the programmer by clicking on the following (see Section 4.16).
- ❷ **Key type:** There are two types of maintenance key that can be programmed:
  - ✦ Events key: See Section 4.14.1.
  - ✦ Master subgroup key: See Section 4.14.2.
- ❸ **Read key:** This allows for the key to be read, displaying its contents on the screen.
- ❹ **Write key:** Records the value selected in Point ❷ on the key.

### 4.14.1. 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.



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.

### 4.14.2. 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.



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.

#### 4.15. 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:



- ❶ **Programmer type:** Select between Ojmar NFC or CNReader model.
- ❷ **COM port number:** Select the communications port where the programmer is connected.



See Section 4.17 for information on the communications port (COM) that is connected to the programmer.

#### 4.16. PC-PROGRAMMER

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

- The Ojmar programmer.
- TheOTSRTlocks.
- TheOTSUNlocks.



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



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:



This button is only displayed if the preset programmer type is Ojmar NFC (see Section 4.15).

The main programmer type screen displays the following information:



**1 Reprogram programmer:** Proceed as follows to update the Ojmar NFC programmer firmware:

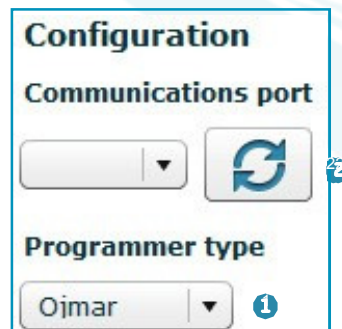
1. Switch on the programmer and connect it to the PC.
2. Select the file (with extension “.hex”) supplied by Ojmar and click on "OK".

**2 and 3 Reprogram OTS and UN 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”) supplied by Ojmar and click on "OK".
3. Ask the Ojmar technical service for guidance on the updating process (see Section 0.4).


#### 4.17. ESTABLISH COMMUNICATIONS WITH THE PROGRAMMER

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



To do so:

**1 Select programmertype:** 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.



The port resulting from the automatic search (COM1, COM2, etc.) may be used to configure the "Programmer Type" (see Section 4.15).

# 5. FAQs





5.1. FAQs

QUESTION	CAUSE	SOLUTION
<p>The following message is displayed on attempting to read a key: <b>“Check the programmer’s connection. As it may be turned off or disconnected”</b></p>	<p>Communications have not been established with the programmer.</p>	<p>Check that the programmer:</p> <ul style="list-style-type: none"> <li>• Is correctly connected to the USB port.</li> <li>• The programmer controllers are correctly configured. See Section 2.4 and 2.5.</li> <li>• Communications have been established with the programmer from the OTS Management Software. See Section 4.17.</li> <li>• Select the correct programmer model: Cnreader or Ojmar.</li> </ul>
<p>On creating a cancellation key, the following message is displayed when the database is selected: <b>“There are no keys assigned to users in the database”</b></p>	<ul style="list-style-type: none"> <li>• There is no user in the database.</li> <li>• No key has been created.</li> <li>• User keys (free or dedicated) have been created but no user from the database has been assigned to them.</li> </ul>	<p>There must be at least one user and one key (free or dedicated) to which a user has been assigned.</p>
<p>The following message is displayed on attempting to connect to the programmer: <b>“No COM port on the list is of the OTStype”</b></p>	<p>The programmer type is incorrect.</p>	<p>Select the correct programmer model: Cnreader or Ojmar.</p>
<p>The following message is displayed on attempting to read or record a key: <b>“No key on the programmer”</b></p>	<p>No key has been placed on the programmer or it is incorrectly placed.</p>	<p>Place a key on the programmer within the reading limits.</p>
<p>The following message is displayed on attempting to read the events of a lock from the Ojmar NFC programmer: <b>“No comm with lock. Result: ERROR”</b></p>	<p>The lock type selected is incorrect.</p>	<p>Make sure the lock is OTS RT or OTS Adv.</p>
<p>The following message is displayed on initialising a lock using the Ojmar NFC programmer: <b>“Lock is NOT in the list”</b></p>	<p>The lock has not been added to the list of locks in the programmer.</p>	<p>Add the lock, following the steps given in Section 4.8.1.</p>
<p>The lock does not open.</p>	<p>The lock is being used by another key.</p>	<p>Pass the master key (Red) and check that it has been correctly released by closing and opening the lock using a free user key.</p>
<p>The lock is not working.</p>	<p>The lock has detected flat battery (see lock flashes).</p>	<p>Replace the lock batteries and check that it works by closing and opening it using a free user key</p>

QUESTION	CAUSE	SOLUTION
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.



**ojmar**

**LOCKING  
SOLUTIONS  
FOR FURNITURE**

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