OCS AND PC SOFTWARE MANUAL

EDITION 03

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General recommendations and instructions for use:

To ensure the correct operation of our product in your installations you must observe the following rules:

1. Product installation and use must be carried out in accordance with the technical operating conditions described in the corresponding manual.
2. When not specifically indicated the proper installation and use of the application is the responsibility of the customer.
3. Inspect the packaging and material for damage immediately after reception of the material. Also check that the delivery is complete (accessories, documentation, etc.).
4. If the packaging has been damaged during transport or you suspect that it could have been damaged or may be faulty, the material must not be started up. In this case, please contact us.
5. Our products’ installation and handling must be carried out by authorised staff. The electrical connections in particular must be carried out only by qualified specialists.
6. Any replacement or removal of the protection covers is strictly forbidden.
7. Do not attempt to repair materials after a fault or damage and try to operate it again. In such an event, it is essential you contact us.
8. We take no responsibility for damage caused as the result of misuse.
1 OCS System: components

OCS is an electronic locking system mainly designed for sports and leisure centres. This system is basically made up of OCS keypad locks, a device for its programming and maintenance called programming key and management software.

1.1 Description

The OCS lock is an electronic lock that includes a capacitive touch keypad for the user to insert a numeric code.

This system replaces the traditional mechanical key system and even the transponder system and complies with standard fixing points and measurements, in such a way that it can replace the former system in cupboards or lockers by just making two extra holes.

The lock is a safety device with 4-digit numeric codes.

The system is autonomous and the lock is powered by 4-non-rechargeable alkaline batteries. A battery life of four years with an approximate use of twenty cycles (considering a cycle as one closing and one opening) is estimated.

1.2 OCS Lock

The OCS lock’s main features are:

- OTS footprint and coin lock. (with two extra holes).
- Free version (tab), free with coin insertion (tab) and dedicated (embedded).
- Includes LED and sound signal.
- Thousands of possible combinations.
- When it detects a low battery it does not allow locking.
- Clock event management.
- Operates in wet and dry areas.
1.3 Programming key

The programming key is peripheral device that allows both programming and maintenance or supervision of the OCS locks. It has the following functions:

- Operation as a complete cycle master key.
- Operation as initialisation key (automatic opening management, lock operating mode, automatic time changes according to summer/winter time, allocating master codes...).
- Operation as event reading key.
- Operation as event reading key.
- Operation as user key for the disabled.
- Includes LED.
- USB to PC connection.
- Wireless connection to OCS locks.

2 OCS lock installation and assembly

The OCS lock can be installed in lockers 4 mm to 20 mm thick.

The locker door’s lock should be correctly assembled to guarantee correct lock operation.

The position of the fixing holes and distance from the lock to the body of the locker should be carried out correctly according to the instructions in this manual.
2.1 OCS lock components

The OCS lock is made up of three functional parts:

- Front part: interface keypad with the user
- Mechanical part: in charge of moving the tab or slide bar
- Fixing components between the two parts (anchor nuts and bolts)
2.2 Lock direction

Lock installation must be carried out with anchor nuts and bolts in two drilled holes.

Lock assembly depending on if it is right handed or left handed is as follows.

**RIGHT**

**LEFT**

*Figure 2.2.- Representation of right and left handed locks*
2.3 Assembly considerations

The OCS lock is fixed to the locker door using two nuts [included with the lock]. Certain conditions should be ensured to correctly assemble the lock and minimise operating problems due to the installation. Amongst these, the following should be taken into account:

- A maximum tightening torque of 250 Ncm should not be exceeded when screwing each nut.
- The hole diameter for the cable should be at least \( \varnothing 23 \text{ mm} \) (\( \varnothing 30 \text{ mm} \) recommended).
- The surface where the lock is installed should be completely smooth and clean.

The dimensions and location of the fixing holes are shown in the following figures:
Figure 2.4.- Right handed lock assembly

Figure 2.5.- Left handed lock assembly

(*) NOTE: During installation, make sure that the lock does not hit the locker body with the door open.
2.4 Assembly and installation process

The steps to follow to assemble an OCS lock on a support or furnishing should be followed in this order:

- 1.- Mark the holes and drill using the template [Figure 2.3.]

![Figure 2.6](image)

- 2.- Position the mechanical part and pass the cable through the middle hole.

![Figure 2.7](image)
3.- Position the front part and connect the mechanical part’s cable. If they are properly connected a beep will be heard.

4.- Connect the front and mechanical parts so that the cable is housed lodged inside the middle hole. Use a screwdriver if necessary.
5.- Screw using the M5 nuts and an 8 box spanner.

Figure 2.10

5.- Put the two trim caps on. Insert a sharp object in the middle hole to disassemble the caps.

Figure 2.11
3 Operating description

3.1 OCS

The OCS lock can be configured with three different operating modes: free, free with coin and dedicated.

The following sections describe the special features of each of these operating modes. Bear in mind that any OCS can be configured in any of the three ways, but that they have physical differences (tabs and mechanical parts), which makes certain operating modes incompatible with the different locks.
3.1.1 OCS dedicated mode

The OCS lock operating in dedicated mode will open entering a preset four (4) digit code, preset by the facility’s staff. This lock only opens with the combination of numbers assigned to each lock.

Dedicated OCS are normally closed, and the following steps should be used to open them:

1- Press "start" to wake the lock up.

2- Tap the 4 assigned digits in the keypad.

3- Press 

4- The lock opens and after a few seconds automatically closes.

3.1.2 OCS free mode

The OCS lock in free mode operates with sequence of any four (4) digits entered by the user when occupying the lock.

Free OCS are normally open. The user will enter a code of any four digits to close it. Once occupied by the user, the OCS will only open if the same code is entered again, and will then open and become free so that another user can occupy it with a code of their choice.

The procedure is the same for closing and opening and consists of the following steps:

1- Press "start" to wake the lock up.

2a- If the lock is open → Enter any 4 digits.

2b- If the lock is closed → Enter the code entered previously in the locking process.

3- Press 

4- The lock closes and if we are in situation 2a and is occupied. The lock opens and if we are in situation 2b and is released.
3.1.3 OCS free mode with coin

The OCS lock in free mode with coin operates in the same way as in the free mode, and the only difference is that a coin has to be inserted in the slot designed for this purpose to activate it.

The lock will not close if it is open and no coin has been inserted.

The lock will automatically open if it is closes and the coin is removed.

The procedure is the same as above for the free mode (see Section 3.1.2)

Figure 3.1.- Mechanical part of a free OCS with coin slot.
3.1.4 Description of OCS lock LED flashes

The OCS lock has a LED that indicates both operations it is carrying out and errors that may be occurring. These messages are listed in the following table.

<table>
<thead>
<tr>
<th>GREEN LED</th>
<th>RED LED</th>
<th>AMBER LED</th>
<th>DURATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 flashes</td>
<td>Short</td>
<td>3 flashes</td>
<td>Short (100 ms.)</td>
<td>Turn on sequence flashing. This flashing occurs when the front part of the lock is connected to the locking module.</td>
</tr>
<tr>
<td>1 flash</td>
<td>Very short</td>
<td>1 flash</td>
<td>Very short (50 ms.)</td>
<td>Pressing one key.</td>
</tr>
<tr>
<td>1 flash</td>
<td>Long</td>
<td>1 flash</td>
<td>Long (1 s.)</td>
<td>Low battery detection. This flashing will occur at the start of the cycle (pressing “start” and waking the lock up. The OCS will allow 10 locks in this status and then will not lock until the batteries have been changed.</td>
</tr>
<tr>
<td>3 flashes</td>
<td>Medium</td>
<td>3 flashes</td>
<td>Medium (250 ms.)</td>
<td>Definitive low battery. The OCS will not lock again until the batteries have been changed.</td>
</tr>
<tr>
<td>1 flash</td>
<td>Long</td>
<td>1 flash</td>
<td>Long (1 s.)</td>
<td>Correct opening or locking.</td>
</tr>
<tr>
<td>4 flashes</td>
<td>Short</td>
<td>4 flashes</td>
<td>Short (100 ms.)</td>
<td>Communication with the programming key ended ok.</td>
</tr>
<tr>
<td>2 flashes</td>
<td>Medium</td>
<td>2 flashes</td>
<td>Medium (250 ms.)</td>
<td>The entered code is incorrect.</td>
</tr>
<tr>
<td>4 flashes</td>
<td>Medium</td>
<td>4 flashes</td>
<td>Medium (250 ms.)</td>
<td>Mechanical error. Contact ojmar to resolve the problem.</td>
</tr>
<tr>
<td>5 flashes</td>
<td>Short</td>
<td>5 flashes</td>
<td>Short (100 ms.)</td>
<td>Communication error: The programming key has been removed too soon.</td>
</tr>
<tr>
<td>1 flash</td>
<td>Medium</td>
<td>1 flash</td>
<td>Medium (250 ms.)</td>
<td>No coin has been inserted.</td>
</tr>
<tr>
<td>2 flashes</td>
<td>Medium</td>
<td>2 flashes</td>
<td>Medium (250 ms.)</td>
<td>Incorrect sequence. The keypad sequence has not been entered correctly during an operation with the programming key.</td>
</tr>
<tr>
<td>1 flash</td>
<td>Very short</td>
<td>1 flash</td>
<td>Very short (50 ms.)</td>
<td>OCS turn on when pressing the start key or by clock (automatic opening).</td>
</tr>
</tbody>
</table>

Table 3.1. Description of the OCS lock’s flashes
3.2 Programming key

The programming key is a peripheral device capable of interacting with the OCS locks and management software.

Its main functions are:

- Complete cycle master key.
- Initiation and start-up key for the OCS locks.
- OCS lock deletion key.
- User key for OCS locks.
- Event reading key.

The same programming key can carry out all of the aforementioned functions, as it can be configured as often as you want using the aforementioned management software.

3.2.1 Description of programming key’s LED flashes

The programming key has a LED that indicates both operations it is carrying out and errors that may be occurring.
The different flashes emitted by the programming key when it communicates with the OCS lock are listed below.

<table>
<thead>
<tr>
<th>GREEN LED</th>
<th>RED LED</th>
<th>AMBER LED</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>On</td>
<td></td>
<td>On Key waiting for connection to the PC</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td></td>
<td>On Key connected to the lock or to the PC</td>
</tr>
<tr>
<td>Flashes (10)</td>
<td></td>
<td></td>
<td>Operation correctly finished, the key can be removed</td>
</tr>
<tr>
<td></td>
<td>On</td>
<td></td>
<td>Communication with lock ongoing, do not remove the key</td>
</tr>
<tr>
<td></td>
<td>1 flashes x 3 times</td>
<td></td>
<td>Error type 1. Internal memory error in the key</td>
</tr>
<tr>
<td></td>
<td>2 flashes x 3 times</td>
<td></td>
<td>Error type 2. Low battery</td>
</tr>
<tr>
<td></td>
<td>3 flashes x 3 times</td>
<td></td>
<td>Error type 3. Communication error or incorrect sequence</td>
</tr>
<tr>
<td></td>
<td>4 flashes x 3 times</td>
<td></td>
<td>Error type 4. Error during initialisation, all lock numbers stored in the key have been programmed already</td>
</tr>
</tbody>
</table>

*Table 3.2. Description of the programming key’s flashes*

### 3.3 Programming key - OCS lock operations

#### 3.3.1 Operations with programming key configured as initialisation key

When a programming key is configured as an initialisation key it can perform different operations in the OCS lock.

All these actions start with the “Connection” command, used to establish a link between the two devices. After correctly making the “Connection” the rest of the operations can be performed, distinguishing ones from another entering different code sequences on the OCS lock keypad.
3.3.1.1 Connection

Put the programming key, configured as an initialisation key, in front of the OCS lock. Position the key sensor at the same height as the OCS window, as shown in Figure 3.3. There should be no more than 30 cm between the two devices.

![Figure 3.3.](image)

Press the button on the OCS lock. Then press the button on the programming key.

If everything has gone well, the programming key’s LED will light up in green. The connection has been carried out successfully and the rest of the operations can now be carried out.

3.3.1.2 Event reading operation

This operation collects the events stored in the OCS lock's memory and records them on the programming key, so that they can be read in the management software later on.

a) Make the “Connection”.

   If the programming key has a low battery, the LED will light up in red instead of in green, indicating error code 2 and no actions will be carried out on the lock.

b) Wait for a few seconds.

c) The LED will light up in red, indicating that it is receiving the events from the lock.

d) When it finishes downloading events and if everything has gone well, the LED will flash green indicating that the key can now be removed.
3.3.1.3 Lock initialisation operation

This operation configures the lock with the data stored in the key that have previously been downloaded from the PC software (lock number, lock type, alarms, time details...).

Follow the steps indicated below:

a) Make the “Connection”.

If all the foreseen locks have already been programmed, the LED will light up in red instead of in GREEN, indicating error code 4 and no actions will be carried out on this lock.

b) Enter sequence + + + to start to programme the lock. This sequence should be entered before starting to download events.

If the sequence is not correctly entered or the key is removed too soon, the LED will flash in red indicating error code 3.

If the programming key has a low battery, the LED will light up in red instead of in green, indicating error code 2 and no actions will be carried out on the lock.

c) If the lock initialisation has gone well, the green LED will flash indicating that the key can now be removed.

3.3.1.4 Lock deletion operation

This operation deletes all the data in the OCS lock, leaving it in the same status as when it left the factory.

a) Make the “Connection”

If the programming key has a low battery, the LED will light up in amber instead of in green, indicating error code 2 and no actions will be carried out on the lock.

b) Before downloading events, enter sequence + + + to start to programme the lock.
Deletion will take a few seconds, and the LED will remain turned on in red while this operation is being carried out.

c) If the deletion has been carried out correctly, the green LED will flash indicating that the key can now be removed.

3.3.1.5 Dedicated lock code change operation

A user-defined opening code is programmed in OCS configured as dedicated. This operation allows changing this code.

a) Make the connection

If the programming key has a low battery, the LED will light up in amber instead of in green, indicating error code 2 and no actions will be carried out on the lock.

b) Before downloading events, enter sequence

```
+ + + + +
```

Where the blank keys represent the new code to programme the lock with.

If the sequence is not correctly entered or the key is removed too soon, the LED will flash in red indicating error code 3.

c) If the code change has been successfully carried out, the green LED will flash indicating that the key can now be removed.

3.3.2 Operations with programming key configured as master key

A programming key configured as a master key allows activating an OCS lock.

If the lock is configured as free it will open and close depending on its status (if it is closed or open).

If, on the contrary, the lock is configured as dedicated (normally closed), the master key will open the OCS and a few seconds later, the OCS will automatically close.
The steps to follow to use a master key are the same as those carried out in the “Connection” command:

a) Turn the lock on pressing

b) Press the button on the programming key.

3.3.3 Operations with programming key configured as user key

The programming key can be configured as a user key, replacing having to manually enter the numeric code using the keypad.

The steps to follow to use a user key are the same as those carried out in the “Connection” command:

a) Turn the lock on pressing

b) Press the button on the programming key.

4 OCS management software

This chapter will explain how to install, configure and manage the software for the OCS system's PC.

This software allows supervising and carrying out the maintenance of a facility with OCS locks and communication with a programming key.

4.1 Programming key installation

The first time the programming key is connected to a PC USB port, the operating system will detect it and will indicate this with a message like the one in Figure 4.1.

![Device driver software was not successfully installed](image)
This message means that although programming key has been detected it is still not configured so we have to install drivers. To do this, go to "Control Panel/Hardware and Sound/Devices and Printers".

In next figure (Figure 4.2) we can see how the key is having some problems, this is represented by a small yellow icon.

![Figure 4.2 - Programming key not installed](image)

To update drivers press on its icon, a properties window will appear. Press on "Hardware" to see devices that need to be installed.
We can see a device called “Llave Programadora OJMAR”. Press on “Properties” button. On next screen press on “Change settings”. Doing this the “Update driver” button becomes available and we can select a new driver.
Select “Browse my computer for driver software” between both options available.

![Figure 4.5.](image)

A dialogue box will then appear where the location of the controllers, identified as “CDM 2.04.06 WHQL Certified” should be selected.

![Figure 4.6.](image)
You will find these controllers in the software installation CD, supplied by ojmar. Once installed, a screen similar to Figure 4.7 will appear.

![Figure 4.7](image)

After installation the key’s drivers, Windows will detect a new virtual USB, whose controllers also have to be installed, and which are in the same folder as the key controllers ("CDM 2.04.06 WHQL Certified").

Procedure for installing this virtual USB port is the same than stated above for the programming key, follow again all steps.

After finishing installing the virtual serial port, the programming key is ready for use.
4.2 Software installation

Insert the installation CD supplied by ojmar. To install the ojmar software, you should have Adobe® AIR™ installed on the computer and it is also advisable to have Adobe® Reader®, as some of the software’s options will require this.

4.2.1 Adobe®AIR™ Installation

You should have Adobe®AIR™ installed on your computer before installing the application. You can download the most recent version of this software from http://get.adobe.com/es/air/ or, alternatively, from the installation CD. In the compact disk supplied by ojmar you will find an executable file called AdobeAIRInstaller.exe in the “AIR” folder.

Left click the mouse twice on the executable file, and a license screen will be displayed which you must read and accept.
After a few seconds, the programme will have been installed on your computer and the following screen will be displayed:

4.2.2 Adobe®Reader® Installation

Some of the software’s functions require software capable of opening .pdf extension files. It is advisable to install a version of Adobe®Reader® installed, if you do not have one.
You can download the most recent version of this software from http://get.adobe.com/es/reader/ or, alternatively, from the installation CD. In the compact disk supplied by ojmar you will find an executable file called AdbeRdrxxxx_es_EN.exe in the ojmar “Reader” folder.

Left click the mouse twice on the executable file, and the installation files will start to unzip.

![Figure 4.11.- Extracting files](image)

When this process has finished, the wizard will give the option to select where the files that make up the installation will be copied. Select a folder and press "Install".

![Figure 4.12.- Destination folder screen](image)
After choosing the installation folder, the wizard will start to copy the files that are included in the programme.

Figure 4.13.- Installing files

When the programme has been copied it has been installed. You may be asked to reboot the PC.

Figure 4.14.- Adobe® Reader® installed
4.2.3 ojmar application installation

Look for the “ojmar.exe” executable file in the CD and double left click the mouse to start the installation.

A screen will appear where you can select the following options:

- If you want to create a direct access icon on the desktop for the software.
- If you want to start the software after installation.
- Location where the software will be installed.

![Figure 4.15.- Installation preferences](image)

After selecting the best options for us, click "Continue" to start to copy the files to the computer.

![Figure 4.16.- Installing the application](image)
After installing the application it will automatically execute if we have selected the option in “Installation preferences” (see Figure 4.15). If this is not the case, we open it from the icon created on the desktop or in the Windows® “Programs” menu.

![Figure 4.17.- Direct access to the application](image)

The first time the application is executed the screen shown in Figure 4.18 will be displayed, where a license file, supplied by ojmar will be asked for.

![Figure 4.18.- License file request](image)

After clicking button “Browse / Buscar / Parcourir” a dialogue box allows us to import the license file from the hard disk of our computer.
Figure 4.19.- Selecting the license file

After clicking “Open”, and if the license is correct, the software will show a message.

![Configuration done]

Application successfly configured

Accept

Figure 4.20.- License accepted, the software is ready for use.

After clicking “Accept” the software will start up displaying a welcome screen.
It asks for a user name and a password for accessing the application. This information will be supplied by ojmar when it delivers the license.

The programme will be accessed after entering this information.

4.3 Initial configuration and start-up

Before starting to use the programme, some information has to be configured for it the system to run correctly.

We find the main screen or “Lock” screen when we open the application. This screen can also be reached from “Configuration→Locks” or clicking the icon.
We see a dropdown tree on the right-hand side of the screen where, the locks that make up the main facility hand, in this case OCS locks.

We right-click on the “FACILITY” text to personalise the application. A box allows us to change the name of the facility and the icon that represents it.

For example, let’s change the name of the facility to **ojmar** and select an icon from the computer’s hard disk, for example this one that represents a swimming pool.
4.3.1 Lock creation

The next step consists of creating the locks that will make up the installation in the software. We right-click on the OCS icon to do so.

The first thing we see in the box that appears is the lock’s name. This field is automatically allocated by the software using consecutive numbers.

The two next fields “Initial lock” and “Final lock” are the lock numbers that will be created. In the example in Figure 4.25 we are going to create locks from number 1 to 10.

Finally, we have to select the OCS lock type. We have three options:

- **Free.** Freely assigned lock, the user can occupy any open lock entering a four-figure numeric code.

- **Free with coin.** Freely assigned lock, the user can occupy any open lock entering a four-figure numeric code and a coin.

- **Dedicated.** Lock assigned to a member. The lock can only be opened with a previously programmed four-figure code.

In the following example we are going to create free locks. After filling in the details we click “Save” and the locks are automatically created.
We are now going to create another 5 locks, but this time of the dedicated model type.
Figure 4.27.- Adding dedicated locks

We are going to change the icon to tell them apart from the already created ones. To do so, we right click on each lock and using the “Change icon” button, we look for the new picture in the hard disk.

Figure 4.28.- Created dedicated locks
4.3.2 Operators

An operator is an access user to the software who can be assigned or refused rights to carry out certain actions.

As commented in the previous section, an administrator user name and password to access the software comes with the license. Once in the application, this default administrator can change or create new users.

There should be at least one system administrator, who can carry out all operations, and we recommend creating another with restricted access to important information for the operation of the OCS system.

Operator administration is carried out in "Configuration→Operators". This screen can also be accessed clicking icon .

Once in it, we can see the default user, and we see that it is marked as operator (✓), and therefore have access to all of the application’s functions.

![Operator management screen](image)

*Figure 4.29.- Operator management screen*
The screens gives us access to “Add” operators, “Delete”, “Edit” and “Display” already created operators.

We are going to create a new operator as an example, and to do so we click “Add”.

We enter “Operator name”, “Password” and confirm the password for safety reasons. These are the fields to be used by the new operator to access the application. We select the options to give access to this user from the lists on the right-hand side of the screen. If we select the “Administrator” tab, we will be creating an operator who will have access to all of the software’s functions. In this example we are going to select everything except the “Change operators”, “Add operators” and “Delete operators” options, and will allow him/her on the contrary “Display operators”.

![Figure 4.30.- Creating a new operator](image)

After clicking “Save” the new operator is created, without administrator category (”). The software can now be accessed with the “reception” user name and its password.
4.4 Programming key

The programming key is a peripheral of the OCS lock, which can be used to carry out different functions such as initialising locks, changing their configuration, reading events, operating as a master key...

4.4.1 Configuring and connecting the programming key

From "Communications→Programming key" or clicking icon access the screen from where the programming key and its functions is managed.

Before accessing this screen, make sure that all of the programming key’s controllers are properly installed (consult Section 2 of this document).

Check that when the key is connected to a USB the LED turns on in amber. This means that the key is connected to the computer, but that it has not been connected to the software yet. When you go to the "Programming key" the first time, the software will try to connect to the programming key automatically, analysing the active USB port in the computer. The following screen will be displayed while this operation is being carried out.
Once detected, button will go to indicating that the key is connected and ready for use. In the same way, the key’s LED will turn from amber to green.

If for any reason the software cannot automatically connect to the key, you can retry the operation clicking the port refresh button or manually selecting the port from the dropdown list with active ports and clicking “Connect”.

When the key has been connected, reading/writing operations can be carried out with it.

**IMPORTANT NOTE:** Before unplugging the programming key from its USB cable, it is highly recommended to use the disconnect button and wait for the key to return to its standby status (LED of the key lit in amber)

### 4.4.2 Operations with the programming key

The programming key can be configured in three different ways: as an initialisation key, as a master key as a user key.

#### 4.4.2.1 Initialisation key

An initialisation key can carry out the following actions:

- Start-up of an OCS lock
- Collect events from an OCS lock
- Code change in OCS locks with dedicated operating mode
- Delete the information from the OCS lock

To know who to carry out these actions, see *Section 3.3.*
To programme the programming key as an initialisation key, we go to the “Communications→Programming key” screen. When the key has been selected we select “Initialisation” and the different details to be filled in pop up on the right-hand side of the screen.

In “Lock type” we will select “Free with coin”, “Free” or “Dedicated” depending on the type of OCS we are going to initialise. The programming key can initialise locks consecutively, so that if we want to carry out this operation with the 2 to 10 locks, we will only have to select in “Initial” and “Final” these values and the key can be used to initialise one after another.

“Alarm” allows configuring a time in the lock for it to automatically open. The automatic opening can be carried out depending on the days of the week. This function is only configurable in free locks (with or without coin) and it will not appear when we have selected “Dedicated” as “Lock type”.

The “Master code” is a 6-figure number that can be used to open the OCS when the user does not remember the sequence of numbers he/she has entered to close his cupboard or locker.

In “Automatic time changes” the days in which the lock has to change its date/time to adapt to summer or winter time can be configured. Clicking on each of the lines, a calendar appears to enter these dates conveniently. The clock can be put forward and back up to ten hours.

After entering the date, we click “Write key” and if everything has gone well, the key will be ready to carry out its functions as an initialisation key.
4.4.2.2 Master key

The programming key can also be configured as a master key.

Select “Master” as the key type. This key has no configurable option, and therefore when it is selected all of the boxes disappear, and only the “Read key” and “Write key” will be active.

We will click “Write key” to programme the key as a master key.
4.4.2.3 User key

The programming key can also be programmed as a user key for the disabled.

To do so we select "User" in "Key type". A window is displayed on the right-hand side of the screen where will select the “Lock number” of the dedicated type OCS we are going to assign the key to. User keys can only be used in dedicated locks, never in free mode, and therefore only the 5 dedicated locks created in the example in Section 4.3.1 will appear on the list.

The user keys can also be assigned an expiry date on which they stop being valid.

In the next figure [Figure 4.36] we are creating a user key for dedicated lock 15 and with an expiry date of 19 April 2012 at 17:00.
4.4.2.4 Reading from a key

The “Read key” button allows reading both the key’s configuration and the data it has stored in its memory.

When this button is clicked, how the key is configured, if it is an initialisation, master or user key, if there are locks pending configuration, if it has time changes recorded, etc., will be displayed on the screen. At the same time, key events will be received if it has received them from an OCS lock. If this is the case, the software will display a message on the screen notifying that events have been received and which can be consulted on the events screen.

![Figure 4.37.- Received events.](image)

4.5 Event reading

A programming key configured as an initialisation key can receive and store events from an OCS lock.

These events are consulted from the “Communications → Events” screen, also accessible from the icon.

As already commented, reading an initialisation key that has stored events from the “Programming key” screen, will make these events be automatically displayed on this event screen.

The key can also be forced to send the events from this events screen. To do so, just have the key connected and click “Read events” button.

The application will communicate with the key and if it has events stored in its memory they will be displayed on the screen, as can be seen in Figure 4.38.
The lock number from which the events have been received can be seen in this events list, in this case lock number 3. After the description of the event, the last code entered by the user to close the locker and the date on which the event occurred can be seen.

When we exit the events screen, the application will ask if we want to keep or delete them.

If **Save events** is clicked, these will be stored in a database, so that they can be consulted again the next time the application is opened. On the contrary, they will be definitively deleted.

If saving the events is selected and later on we decide to delete them, we will use icon **Delete events list** for delete all of them.
If you want to save the event, but do not want them in the application, they can be exported. The "Export events to a file" button stores the events downloaded onto a text file in table format, which allows for saving them conveniently in the computer.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>Automatic opening</td>
<td>alarm</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>Automatic opening</td>
<td>alarm</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>Automatic opening</td>
<td>alarm</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>Automatic opening</td>
<td>alarm</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>User opening</td>
<td>User opening</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>13</td>
<td>1</td>
<td>Master key closing</td>
<td>Master key closing</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>Master key closing</td>
<td>Master key closing</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>17</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
<td>18</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>19</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
<td>20</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>21</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
<td>22</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
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<td>23</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
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<td>Master key opening</td>
</tr>
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<td>User closing</td>
</tr>
<tr>
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<td>Master key opening</td>
<td>Master key opening</td>
</tr>
<tr>
<td>27</td>
<td>1</td>
<td>User closing</td>
<td>User closing</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>Master key opening</td>
<td>Master key opening</td>
</tr>
</tbody>
</table>

Figure 4.40. - Events exported to a file

There is another button "Print events" used when we want to print the received events. When this is used, the events will open in a file with pdf extension, from where they can be saved using this format or printed.
5 Maintenance

5.1 Battery replacement

The lock is capable of detecting low batteries. It will carry out up to 10 cycles with a low battery and on the eleventh it will allow opening but never closing, preventing the locker from getting blocked and having to force it to open it.

Follow the steps listed below to replace the batteries:

Figure 4.41.- Events exported to a pdf format. The application allows saving or printing them.
- Loosen the four inviolable Torx-10 lock screws.

- Remove the cover inserting a sharp object into the indicated slot.
- Remove the cable from the slot.

   ![Figure 5.4](image1.png)

- Remove the battery holder, using a screwdriver if necessary.

   ![Figure 5.5](image2.png)

- Change the 4 LR6 1.5 V AA alkaline batteries. Check that they are correctly positioned and that the lock works before closing the cover.
**6 Technical information**

- **Power supply:** 4 LR6 1.5 V AA alkaline batteries
- **Battery life:** Approximately 4 years with a daily use of 20 cycles (1 cycle = 1 closing + 1 opening)
- **Low battery detection:** Yes
- **Temperature range:** -20° to 70°
- **Protection against solid and liquid bodies:** IP55
- **Protection against external impact:** IK9
- **Protection against internal impact:** IK9
- **Dimensions:**

*Figure 6.1.- Mechanical part*
Figure 6.2.- Front part