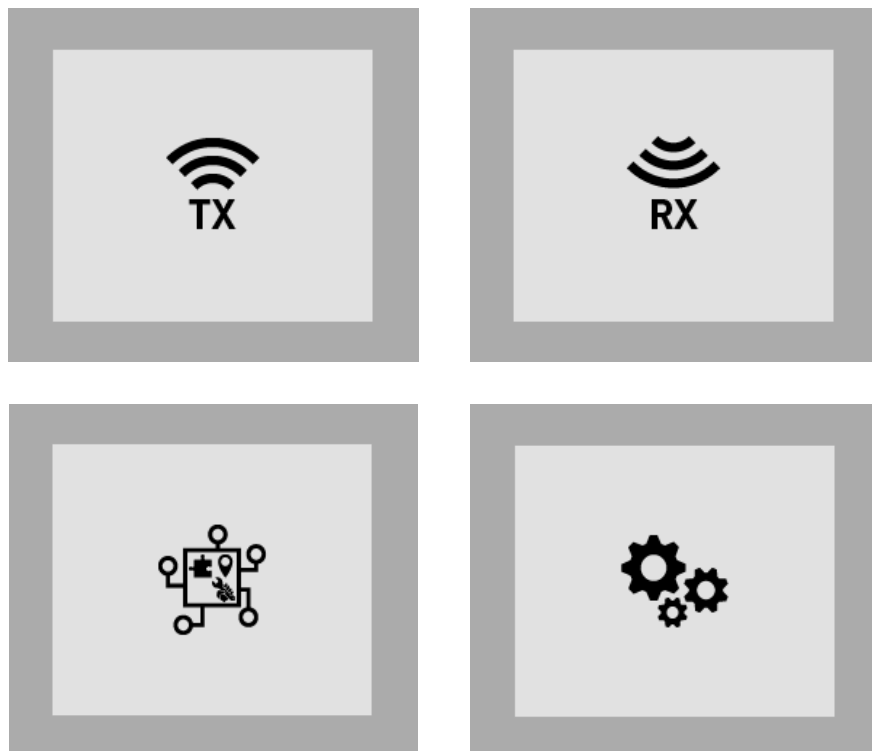


Entrematic ZEN Manager

Installation and User's Manual

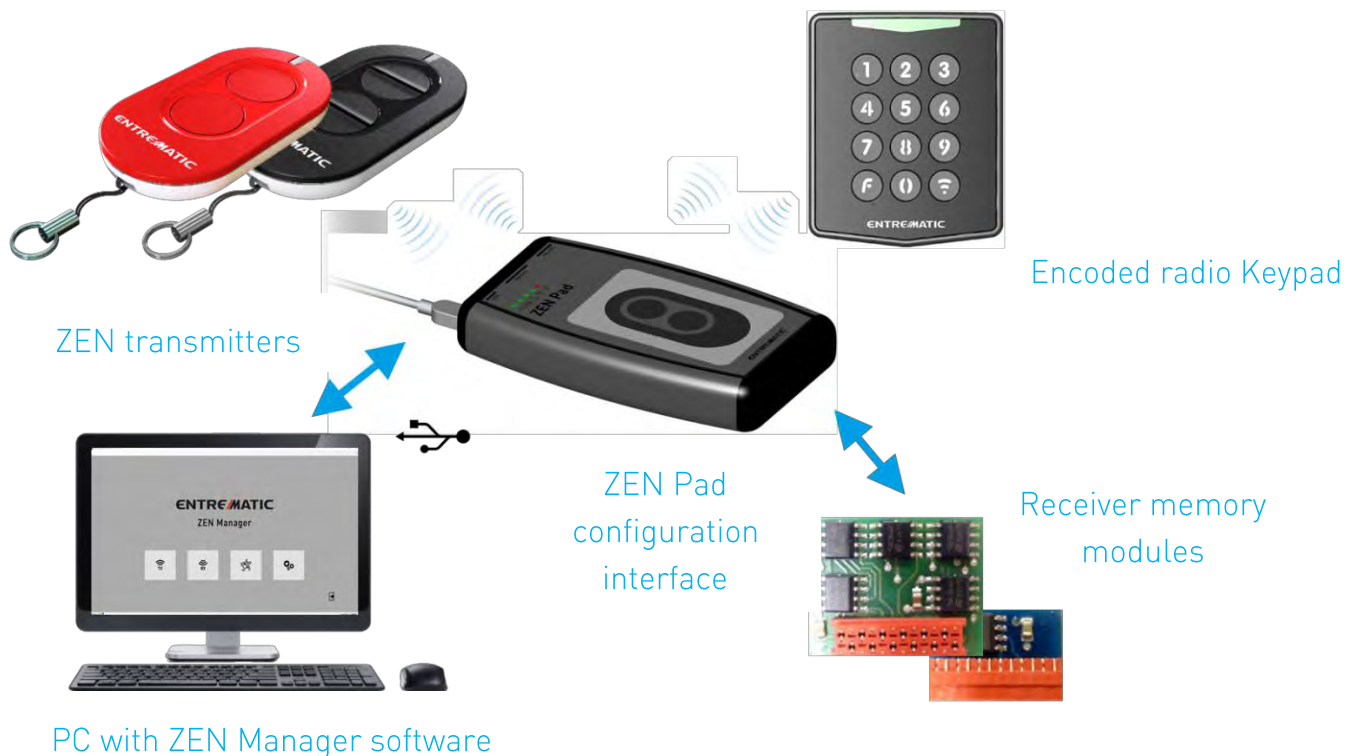


Contents

1. Introduction.....	3
1.1 The ZEN system.....	3
1.2 What is the purpose of ZEN Manager?	3
1.3 System requirements	4
1.4 Installation procedure	4
1.5 First access to the program	4
1.6 Language selection.....	4
1.7 Help and Info.....	4
2. Description of menus.....	5
2.1 Main menu	5
2.2 Transmitter Management menu.....	6
2.3 Receiver Management menu	7
2.4 System Management menu	8
2.5 Tools menu.....	9
3. Basic procedures.....	10
3.1 General key to icons	10
3.2 Info Box and status bar.....	10
3.3 ZEN Pad connection check	10
3.4 Administrator Users	11
3.5 Database backup copy.....	11
4. Transmitter Management.....	12
4.1 Setting up the buttons on a transmitter	12
4.2 Setting up a transmitter in Protected Mode.....	15
4.3 Saving and reusing PRESETS.....	17
4.4 Cloning	17
5. Receiver management.....	18
5.1 Creating a Standard or AES-128 Encrypted receiver.....	18
5.2 Creating a receiver in Protected Mode	21
5.3 Creating a receiver in Protected Mode starting from pre-existing memory module.....	21
5.4 Modify or eliminating an existing receiver.....	22
5.5 Managing and using the MASTER Keys.....	23
6. Systems management.....	25
6.1 Creating a new system	25
6.2 Modifying an existing system	26
6.3 Maintenance Operations Management.....	28

1. Introduction

1.1 The ZEN system



ZEN is an integrated remote control system for gates, barriers, garage doors, and factory doors, designed to give the installer, or person responsible for automated entry systems, complete, simple and secure control over the remote control devices.

The ZEN system consists of:

- The pocket-sized ZEN radio transmitters, available in a range of models and operating frequencies.
- The AXK4 and AXK4P encoded radio keypads.
- The BIXMR e BIXMR2 memory modules, which are used to store the code numbers of the transmitters authorised to access the various sites.
- The ZEN Pad configuration interface, which enables the devices listed above to dialogue with a personal computer.
- The ZEN Manager software used to manage the entire system.

1.2 What is the purpose of ZEN Manager?

The ZEN Manager can be used to:

- Read and set-up transmitters in various modes: Standard (rolling-code, fixed code or dip-switch), Encrypted and Protected.
- Prepare transmitters for use on a specific system.
- Read, prepare and set-up user memory modules for the various sites.
- Manage a simple, flexible database containing the details of all the remote control units that have been installed in a given system.
- Create a map of the systems, including the composition, the site details and a service log.

1.3 System requirements

To function correctly, ZEN Manager requires:

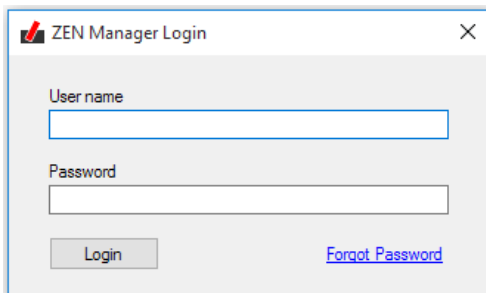
- A Personal Computer running the Windows 7 operating system, or later
- RAM: minimum 4 GB
- Hard disk storage space: minimum 2 GB
- Display resolution: minimum 1280x600

1.4 Installation procedure

- The latest version of the ZEN Manager software may be downloaded from the following URL: <https://www.ditecentrematic.com/downloads/sw/ZENManager>
- Before installing the ZEN Manager software, we recommend closing any other applications that may be open.
- Start the Set-up_ZEN_Manager_vX.X.X.X.exe program and follow the instructions.

1.5 First access to the program

In order to protect the potentially sensitive data contained in the sites database, users must enter a valid User name and Password to access the ZEN Manager software. When the program is started, a "Login" window appears, requesting the user to enter his/her access credentials. The default access credentials, which correspond to the system administrator, are as follows:

A screenshot of the ZEN Manager Login window. It has a title bar with a red icon and the text 'ZEN Manager Login'. Inside, there are two input fields: 'User name' and 'Password'. Below the 'Password' field is a 'Login' button and a blue link labeled 'Forgot Password'.

← User Name:

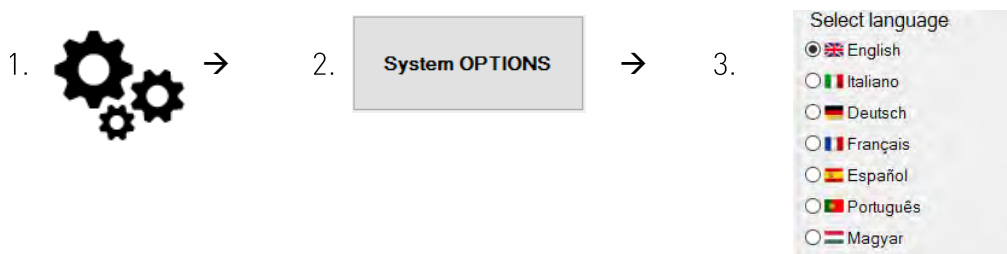
admin

← Password:

default

1.6 Language selection

To select the language used by the program, proceed as follows:








1.7 Help and Info.

Click on the question mark **?** that appears in the top right corner of the various display pages to access the on-line program guide (this document), the Ditec Entrematic website, and the general program information, such as the software version, the ZEN Pad "firmware" version, etc.

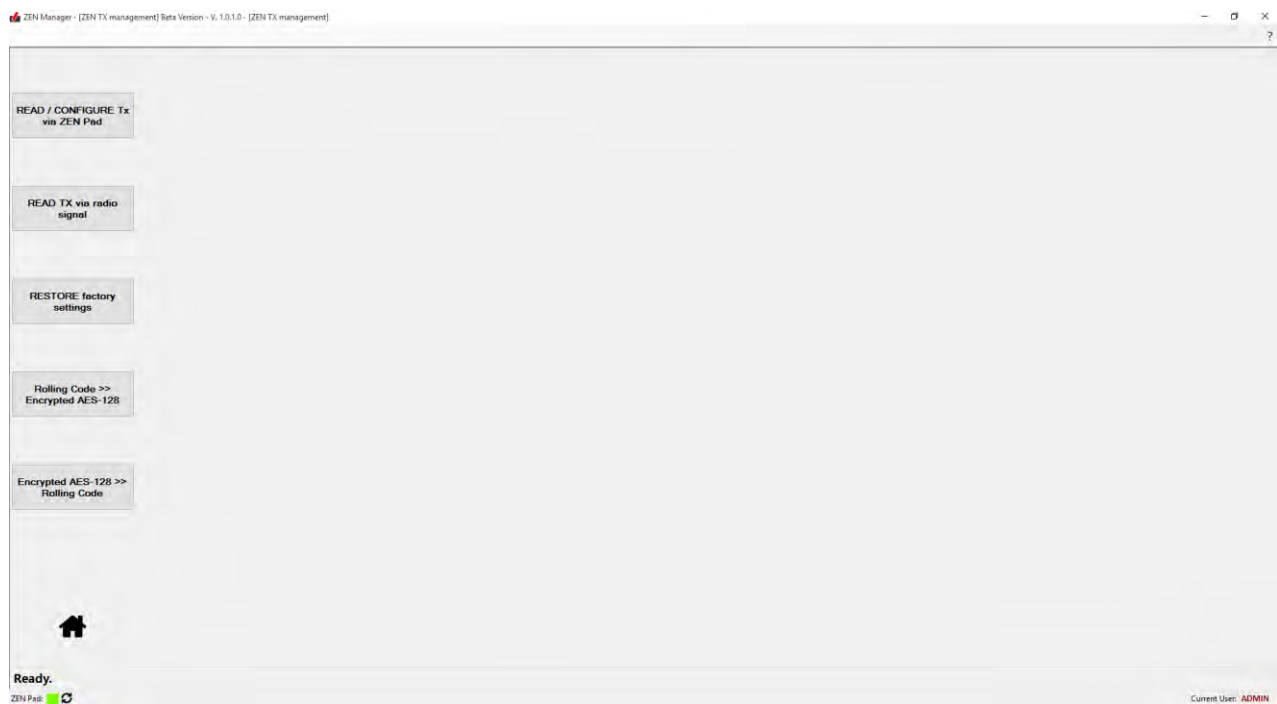
2. Description of menus

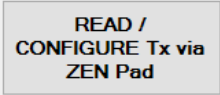

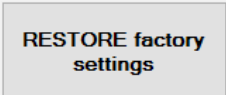
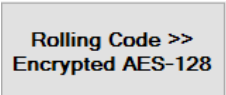
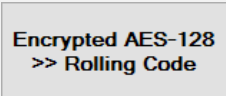

2.1 Main menu



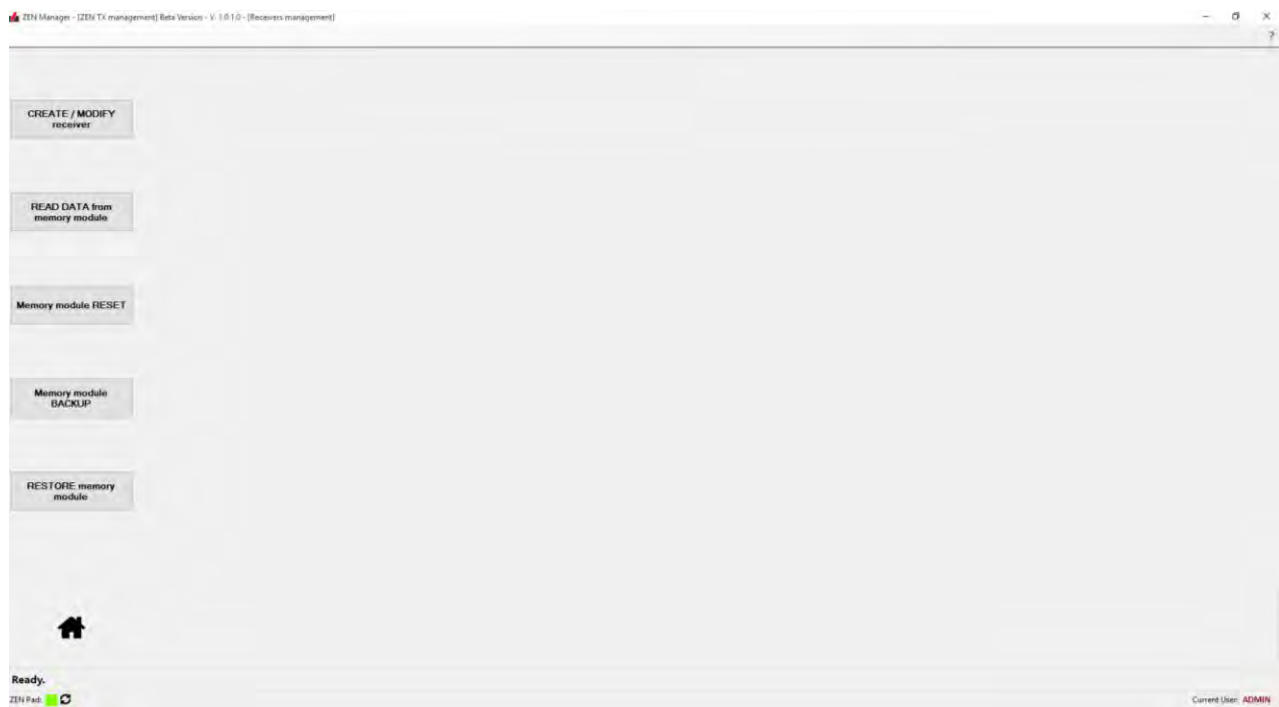
ICON	DESCRIPTION
	Access Transmitter Management functions
	Access Receiver Management functions
	Access System Management functions
	Access Tools menu
	Close program


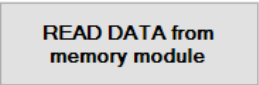

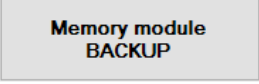
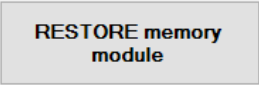

2.2 Transmitter Management menu



ICON	DESCRIPTION
	Press this icon to read or modify the codes and/or operating modes of each individual button on any transmitter (excluding ZEN2C and ZEN4C models). Press this icon to create multiprotocol transmitters, assigning different operating modes to each button.
	Press this icon to display the code, channel and transmission mode associated with a given button on the transmitter simply by pressing the respective button in the vicinity of the ZEN Pad unit (all models).
	Press this icon to restore a transmitter to the "factory" condition (excluding ZEN2C and ZEN4C models).
	Press this icon to convert a transmitter operating in Rolling Code mode to AES-128 Encrypted secure mode. This modification is applied to all the buttons on the transmitter simultaneously.
	Press this icon to convert a transmitter operating in AES-128 Encrypted secure mode to Rolling Code mode. This modification is applied to all the buttons on the transmitter simultaneously.
	Press to return to the MAIN menu.

2.3 Receiver Management menu



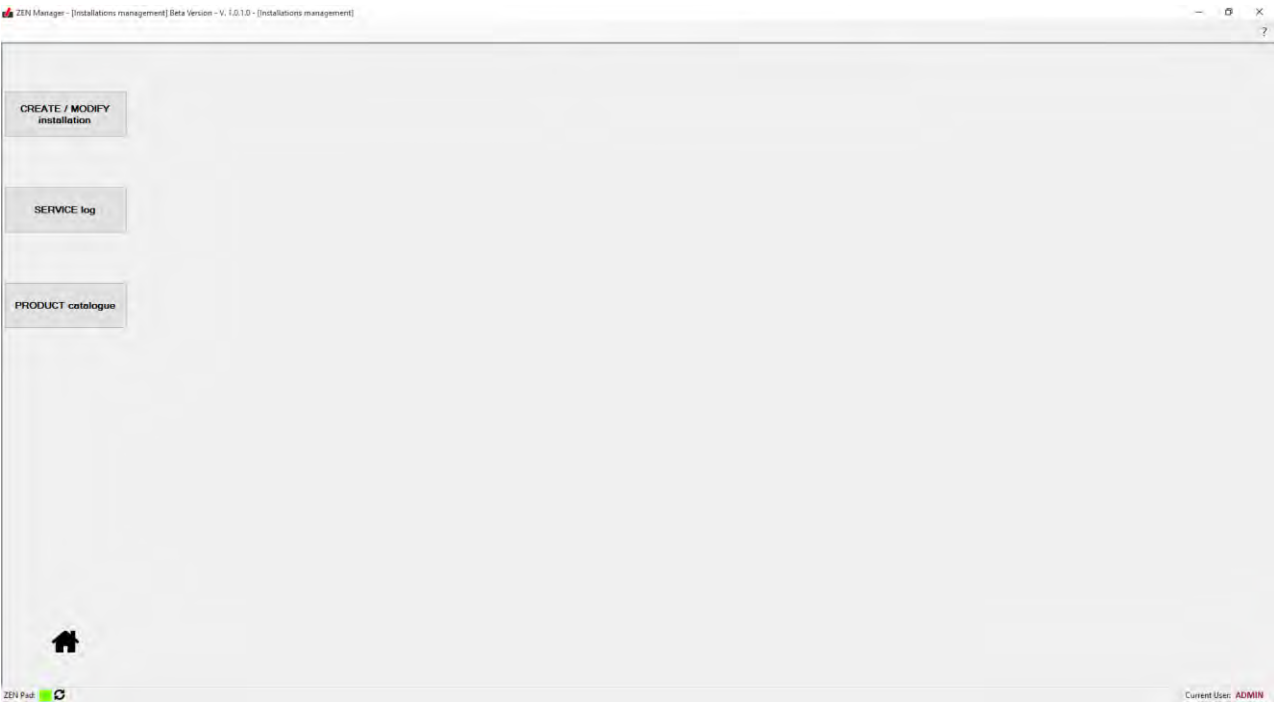
ICON	DESCRIPTION
	Press this icon to create a new receiver, or modify or delete an existing one.
	Press this icon to read the contents of a memory module connected to the ZEN Pad, displaying the operating mode (Standard, Encrypted or Protected) and the number of available memory locations. This function may also be used to save the contents of the memory module to a file on the PC.
	Press this icon to delete the contents of a memory module connected to the ZEN Pad, restoring it to the "factory" condition.
	Press this icon to save the contents of a memory module connected to the ZEN Pad to a file on the PC.
	Press this icon to transfer the contents of a file on the PC to a memory module connected to the ZEN Pad, so that they may be used on the corresponding system.
	Press to return to the MAIN menu.


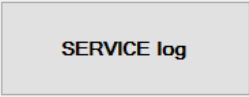




WARNING!

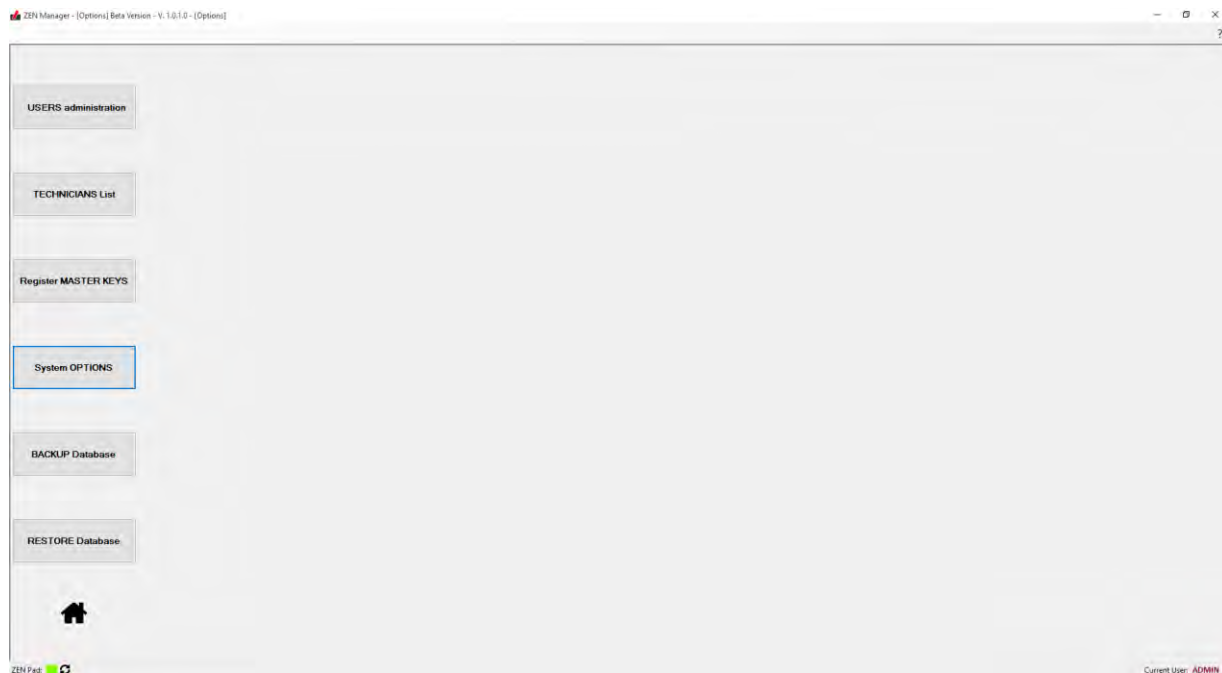
Within the context of the ZEN Manager program, the term "receiver" corresponds to a list of transmitters enabled for use in a given installation. At installation level, this list is stored in the memory module housed in the control panel, or on the receiver card.

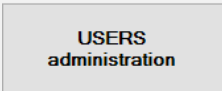

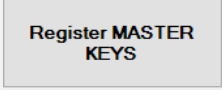
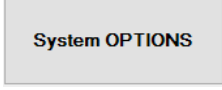
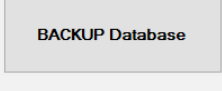
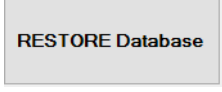

2.4 System Management menu



ICON	DESCRIPTION
	Press this icon to create a new installation, or modify or delete an existing one. Press this icon to display a map of the various systems present in the database, register the products that have been installed and keep a log of any maintenance operations carried out on the respective systems.
	Press this icon to manage the list of operations carried out on the various installations, listing them according to criteria and modifying the content if necessary.
	Press this icon to manage the list of products that can be used on the various systems.
	Press to return to the MAIN menu.

2.5 Tools menu








ICON	DESCRIPTION
	Press this icon to modify the program access credentials, and create new users or administrators. Standard users (User Role) can view the information present in the database, but may only modify the information that they have entered personally. Administrators are permitted to modify all the data in the database.
	Press this icon to manage the list of technicians responsible for the various sites.
	Press this icon to register a certain number of transmitters operating in AES-128 Encrypted mode so that they may be used as master keys for accessing more than one receiver operating in Encrypted or Protected mode. These transmitters may be used as "pass keys" and issued to personnel assigned to carried out maintenance work on the systems.
	Press this icon to select the program language, set-up or check the communication port with the ZEN Pad, and define the currency used when defining the cost of maintenance operations.
	Press this icon to create a backup copy of the database.
	Press this icon to restore the database from a pre-existing backup copy.
	Press to return to the MAIN menu.

3. Basic procedures

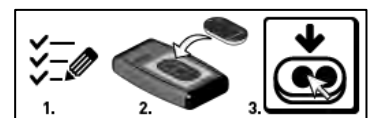
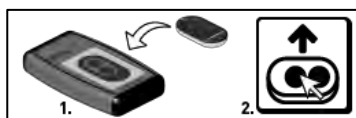
3.1 General key to icons

The following icons are used to perform similar functions on various pages of the program:

-  Press to ADD a new element
-  Press to MODIFY the current element
-  Press to DELETE the current element
-  Press to complete the operation and PROCEED
-  Press to return to the PREVIOUS page

3.2 Info Box and status bar

The "Info Box", which appears in a central position at the bottom of certain pages, provides a simplified explanation of the current procedure in the form of a sequence of numbered steps; this is particularly useful in the case of operations that include actions that are not performed via the PC (ZEN Pad unit, transmitters and memory modules). See examples below:



The status bar, which appears in the lower part of the various pages, provides information about the status of the current operation, in addition to the status of the ZEN Pad unit and User Name of the person currently logged in to the program.


3.3 ZEN Pad connection check

The "ZEN Pad Status" pane in the bottom left corner of the window indicates whether the program has detected the ZEN Pad unit correctly:

- **RED** → Connection with ZEN Pad NOT AVAILABLE
- **GREEN** → Connection with ZEN Pad OK

The main menu includes an active automatic detection function and the status is updated simply by connecting/disconnecting the ZEN Pad to/from the PC.

The automatic detection function is not active in the other windows in order to avoid interfering with any operations that may be in progress via the ZEN Pad.

It is possible to update the status by pressing the Update button  next to the status indicator.



ATTENTION! It may take up to 30 seconds to detect the ZEN Pad. If the program fails to detect the ZEN Pad, disconnect and reconnect it to the PC. In any event, we recommend connecting the ZEN Pad to the PC BEFORE starting ZEN Manager.

3.4 Administrator Users

To get the best out of the ZEN Manager software, we suggest establishing a user structure that reflects the requirements of your organisation from the outset.

If the program is only used by a small group of people, it may be sufficient to restrict access to a single administrator level user.

However, in the case of larger organisations, consisting of various groups assigned to different sites, it is best to define a series of standard users, plus a single administrator who will be responsible for the management of the program. Each user will have full access to his/her own sites, in addition to the "non assigned" ones, but will not be able to modify those assigned to his/her colleagues.

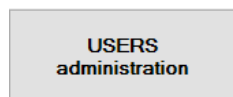


WARNING: We strongly recommend substituting the "factory" Admin user (i.e. the main system administrator) access credentials with a set of customised access credentials.

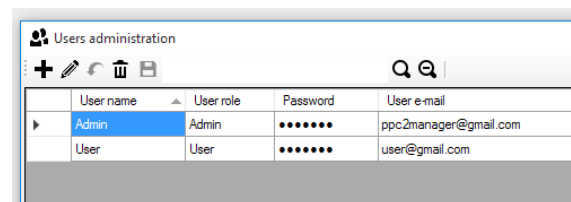
To access the Administrator Users page, proceed as follows:



→ 2.



→ 3.



3.5 Database backup copy

The ZEN manager software uses a database, present on the PC where it is installed, to store the data relating to the transmitters, receivers and the sites that it manages. These data are very important, therefore they must be protected in such a way as to prevent the risk of their being lost or damaged. The TOOLS menu includes the functions that may be used to create backup copies of the database, or to restore the database from a pre-existing backup copy in the event the current database is damaged.

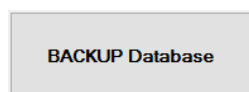


ATTENTION! We strongly recommend creating **backup copies** of the database systematically and at regular intervals, saving them to a data support external to the PC where the software is installed if possible (e.g. external hard disk, "cloud" storage service, etc.). Whenever it is necessary to update the program, it is especially important to create a backup of the database before starting.

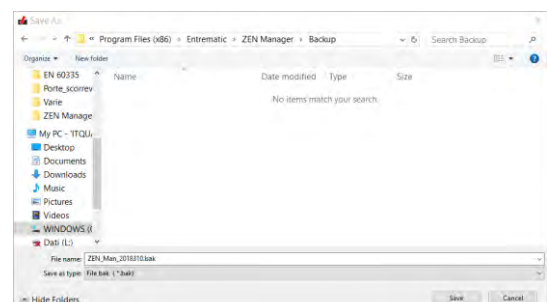
To create a backup copy of the database, proceed as follows:



→ 2.



→ 3.



4. Transmitter Management

4.1 Setting up the buttons on a transmitter

What's the difference between "buttons" and "channels"?

In the case of the transmitter, the term "buttons" corresponds to the physical push-buttons present on the device, which, when pressed, generate a radio transmission.

The term "channels" refers to the various types of "messages" or "commands" that may be generated by the transmitter, and which give rise to a series of differing actions at the receiver, such as opening or closing a gate, partial opening, switching on a courtesy light, etc.

The ZEN system, like the Entrematic remote control units in the previous versions, features a total of four channels, identified by the numbers 1 to 4. In the case of the four-channel ZEN transmitters, channels 1 to 4 are assigned to buttons 1 to 4, respectively, in the factory. In the case of the two channel transmitters, channels 1 and 2 are assigned to the respective buttons.

With the exception of the ZEN2C and ZEN4C models, the channels may be reassigned as required via the ZEN Manager and the ZEN Pad unit, in fact, it is possible to assign any channel to any button, or even assign the same channel to more than one button.

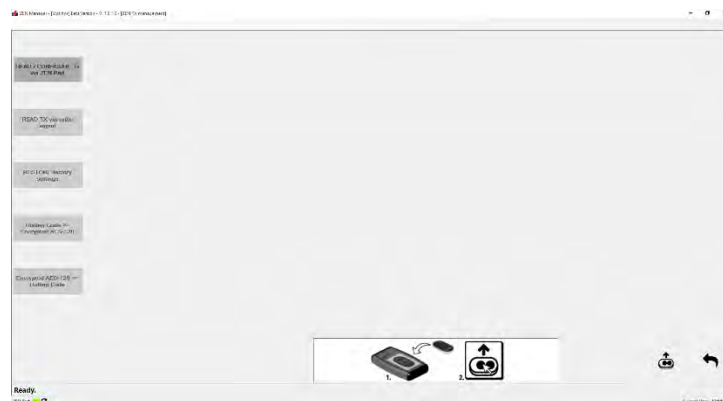
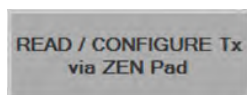
From the point of view of the receiver, in addition to the identification codes corresponding to the "authorised" transmitters, the only information that matters is the type of "message" or "command" received (the "channel") and the action to be performed in response to that "command". The button used to transmit any given command is completely irrelevant.

For example, a receiver may be set-up so that it recognises only two of the four possible "channels" - let us assume numbers 1 and 3 - ignoring the other two, and to respond to these two commands by closing one or other of its output contacts. A transmitter that has been stored in the memory sends a transmission on channel 3. The receiver receives it and closes the corresponding contact. The same transmitter then sends a signal using channel 2, which is rejected automatically, despite being received from an "authorised" transmitter.

As an additional example, let us assume we have a two channel transmitter that transmits "channel 1" or "channel 2" commands only. Normally, when memorising the receivers, the four possible channels are activated automatically, irrespective of which channel is transmitted. This means that, potentially, the receiver will be able to accept a "channel 4" transmission from the aforementioned transmitter and perform the corresponding action. However, in reality, this can never happen since the transmitter is not enabled to send "channel 4" messages.

It is important to remember that there is no "rigid" relationship between the "channels" that a given transmitter is able to transmit, and the "channels" that the corresponding receiver is able to receive. Both these aspects are defined according to the configuration of the specific site and the user's requirements during the installation phase.

1. → 2.

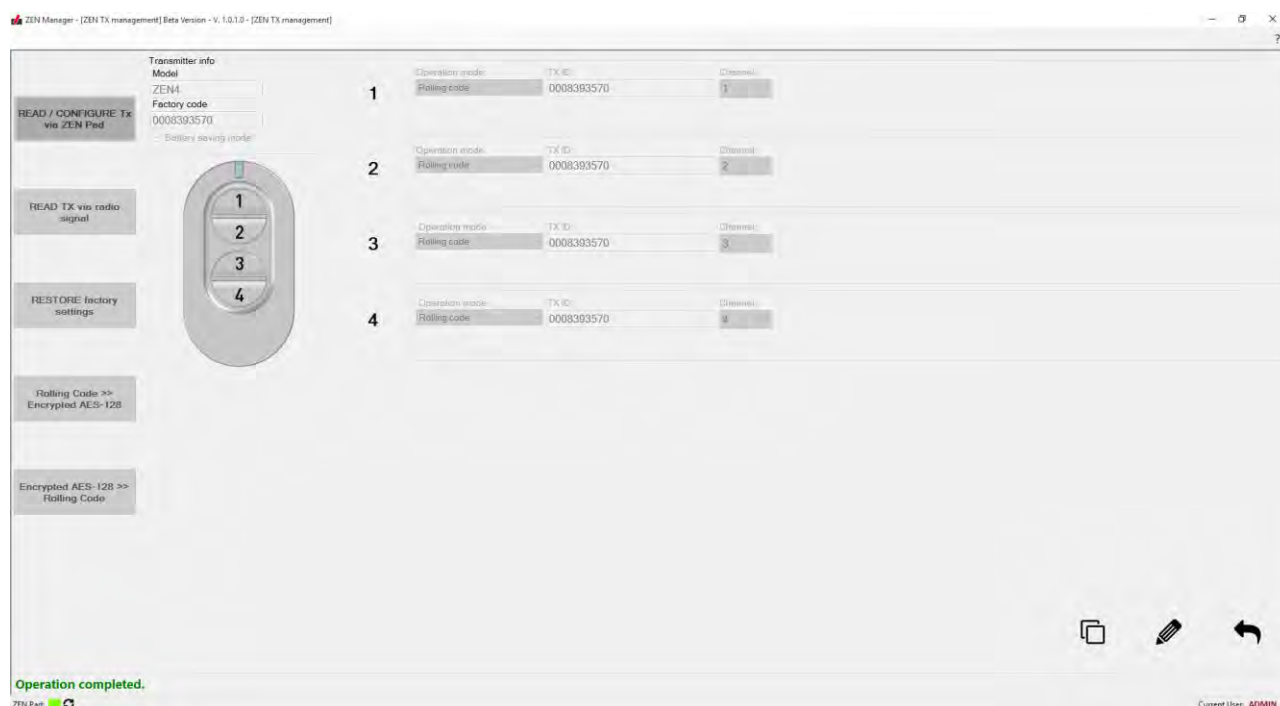


3. Make sure that the ZEN Pad is connected and operational (See para. 3.3 for more details).

4. Position the transmitter on the ZEN Pad and click on Read Transmitter



5. The current setting of each button on the transmitter is displayed, in read only mode:



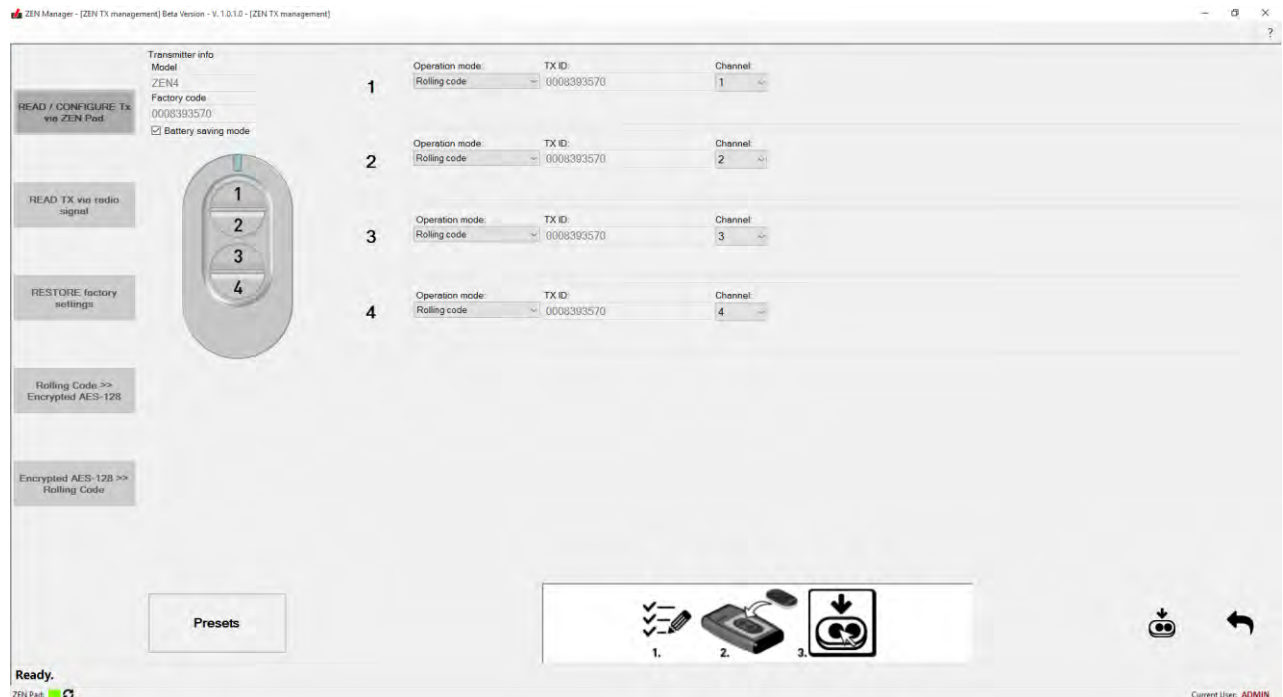
The factory settings corresponding to the transmitter that has just been read are displayed above the respective image.

The set of fields in the central part of the screen display the specific information for each individual button, such as operating mode, code (TX ID) and associated channel.

6. To change the settings of one or more buttons, click on Modify



"Read only" mode is replaced by "Modify" mode, meaning that it is possible to modify the fields associated with each button:



It is possible to modify the following parameters for each button:

- a. Operating mode, selecting from:
 - i. Fixed code (in order to emulate ZEN2C or ZEN4C transmitters, as well as previous generation Ditec Entrematic fixed code transmitters)
 - ii. DIP switch (as above, configured using a 10 digit binary code)
 - iii. Rolling code (also compatible with previous generation Ditec Entrematic transmitters)
 - iv. AES-128 Encrypted
 - v. Protected Mode (See next section)
 - b. Button Code (May be modified only in Fix code or DIP switch operating modes). NB: when the user clicks on "read TX via radio", the ZEN Pad activates its integrated receiver so that it is possible to acquire the code corresponding to the remote control unit that he/she wishes to copy by means of a radio transmission.
 - c. Channel associated with the button (1, 2, 3 or 4)
7. Once all the buttons have been set-up as desired, make sure that the TX is positioned on the ZEN Pad, and click on Write Transmitter.



4.2 Setting up a transmitter in Protected Mode

How does Protected Mode work

In Protected Mode, the receiver and its associated transmitters are identified by a unique "site code". In this way, a receiver operating in protected mode is able to recognise automatically any transmitters that share its "site code", even if they have not been stored in its memory.


At the same time, the transmitters set-up to operate in Protected Mode with a given receiver will NOT be able to function with any other receiver, even if configured in Protected Mode.

This gives the installer or site manager three important advantages by:

- Preventing any new transmitters from being activated on the receiver without authorisation.
- Providing complete control over the transmitters in use on the site, as well as any that are added at a later date.
- Enabling the creation of pre-configured, ready to use transmitters that can be sent to the user by post or alternative delivery service, without the need to visit the site.



ATTENTION! before it is possible to set-up a transmitter in Protected Mode it is necessary to create at least one receiver in Protected Mode for it to be associated with.

1. Carry out steps 1 to 5 from para. 4.1.
2. Click on  and select "Protected" as the operating mode for the desired button:

1	Operation mode:	TX ID:	Channel:
	Rolling code	0008393570	1
2	Operation mode:	TX ID:	Channel:
	Rolling code	0008393570	2

3. Select the receiver in protected mode that the transmitter (or individual button) is to be assigned to:

1	Operation mode:	TX ID:	Channel:
	Protected Mode	0008393570	1
2	Type:	Associated receiver:	
	New	Pro Test1(200) Impianto 1	
2	Operation mode:	Pro Test1(200) Impianto 1	
	Rolling code	Test(200) Test1(200) Test2(200) Prot1(200)	

4. When setting up a "new" transmitter for use with the receiver in question, access the "Type" drop down menu and select: "New":

1

Operation mode:	TX ID:	Channel:
Protected Mode	0008393570	1
Type:	Associated receiver:	
New	Pro Test1(200)	Impianto 1
New		
Replacer		
Deleter		
Preactivator		

2

Operation mode:	TX ID:	Channel:
Protected Mode	0008393570	2

5. Conversely, in order to set-up a transmitter as a replacement for one that has already been stored in the receiver memory, but is no longer serviceable (if it has been lost, for example, access the "Type" drop-down menu and select: "Replace", and then open the "Associated TX" menu and select the transmitter to be replaced:

1

Operation mode:	TX ID:	Channel:
Protected Mode	0008393570	1
Type:	Associated receiver:	
Replacer	Pro Test1(200)	Impianto 1

2

Operation mode:	TX ID:	Channel:
Rolling code	0008393570	2

Tx associato		
0000001581	0	
0000001581	0	
0000001582	0	

NB: The second column of the Associated TX drop-down menu contains a series of single digit numbers that indicate how often each transmitter has been replaced. The maximum number of times a transmitter may be replaced is 7.

6. In certain cases it may be necessary to eliminate a transmitter from the memory of a Protected Mode receiver, but without replacing it. To do this, access the "Type" drop-down menu and select: the "Eliminator" option rather than "Replace".
The rest of the procedure is identical to that described above.

7. Once all the buttons have been set-up as desired, make sure that the TX is positioned on the ZEN Pad, and click on Write Transmitter.



8. After it has been set-up in this way, the transmitter is ready to be used with the associated receiver, which will perform the requested action as soon as it receives a command from it:
 - a. If it has been set-up as a "New" transmitter, it will be stored automatically in the receiver memory.
 - b. If it has been set-up as a "Replacement", the transmitter will take the place of the unit to be replaced, which will no longer be recognisable to the receiver.
 - c. Whereas, in the case of an "Eliminator", the transmitter to be eliminated will be deleted from the receiver memory so that it is no longer recognised.
9. It is also possible to set-up a transmitter as a "Preactivator" associated with a given receiver. This type of transmitter may be used to configure other transmitters so that they can be used with the associated receiver by simply placing the preactivator on top of the transmitter to be enabled and executing a transmission.

4.3 Saving and reusing PRESETS

It is possible to save certain transmitter configurations in order to set-up more than one transmitter in the same way.



ATTENTION! It is not possible to store configurations for TX that operate completely or partially in Protect Mode.

After reading a TX via the ZEN Pad and setting up the buttons as required (See para. 4.1 for more details):



1. Click on "Presets"



2. The icons used to manage the PRESETS are displayed:
 - a. Open PRESET: press this icon to open a previously saved configuration, selecting it from a list.
 - b. Save PRESET: press this icon to save the currently displayed configuration, assigning it a name
 - c. Eliminate PRESET: press this icon to eliminate the last configuration loaded
 - d. Last PRESET loaded: the status bar indicates the name of the last configuration loaded, preceded by an asterisk (*) if the preset has been modified

4.4 Cloning

After reading or writing a TX via the ZEN Pad it is possible to "clone" the configuration on one or more additional transmitter. "Cloning" does not create an exact copy of the original, but rather produces a copy of its channel settings and any fixed or dip-switch codes assigned to specific buttons, while retaining the code of each "target" transmitter for the buttons set-up in Rolling code, Encrypted or Protected mode.

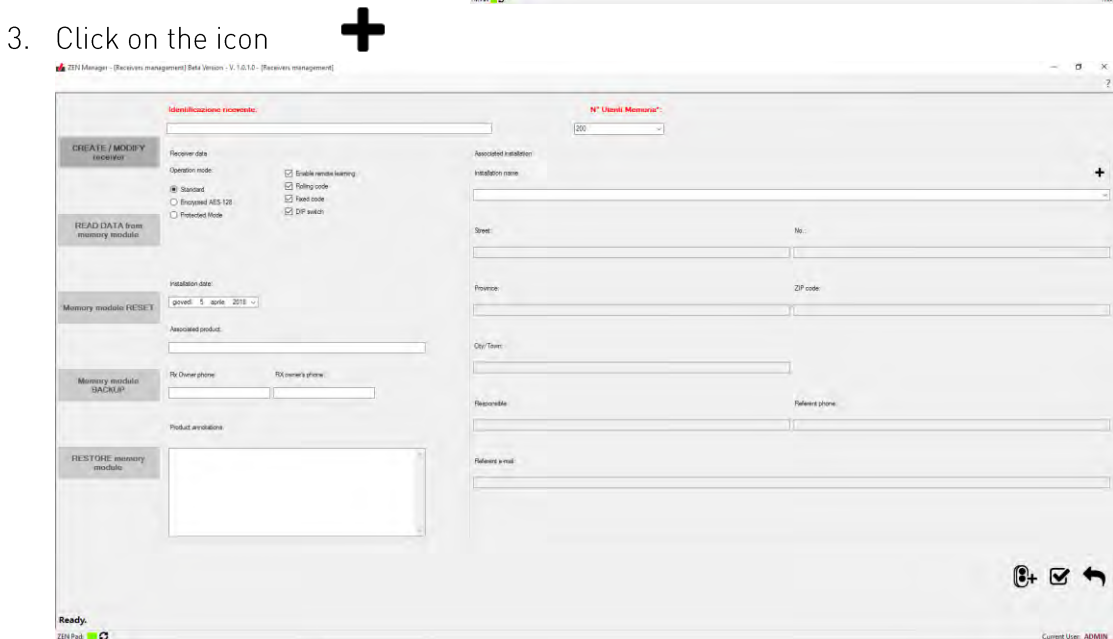
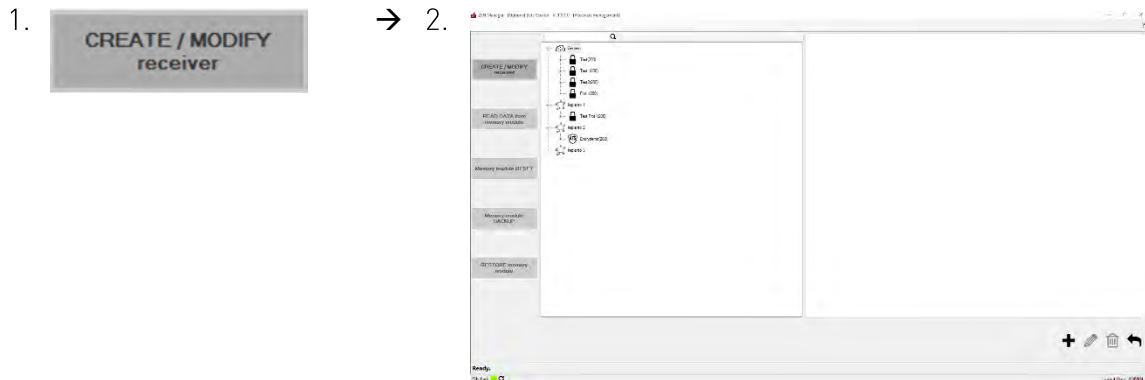
1. Click on Clone Transmitter 
2. Replace the transmitter that has just been read with one to be cloned and click on Write Transmitter. 
3. Repeat for each transmitter to be cloned.







ATTENTION! Any pre-existing configurations saved on the "target" will be deleted during the cloning process.

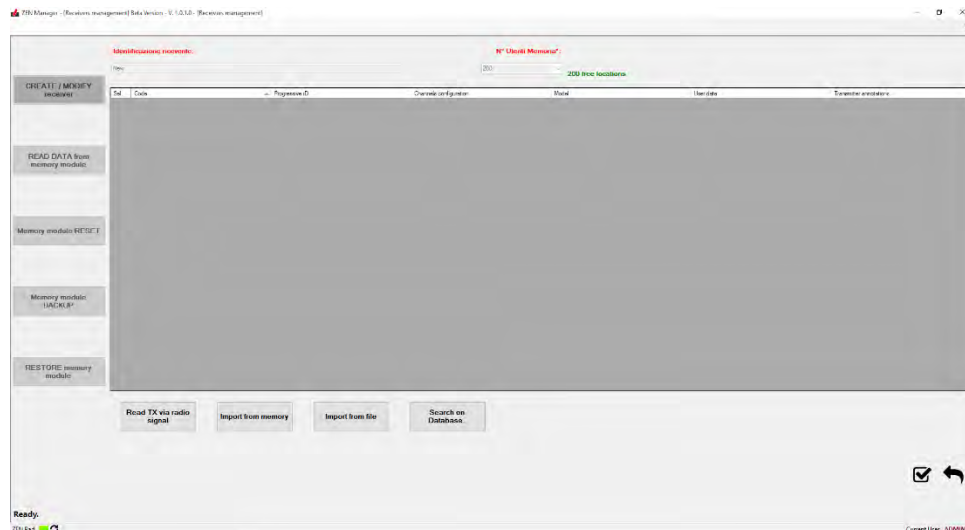
5. Receiver management

5.1 Creating a Standard or AES-128 Encrypted receiver



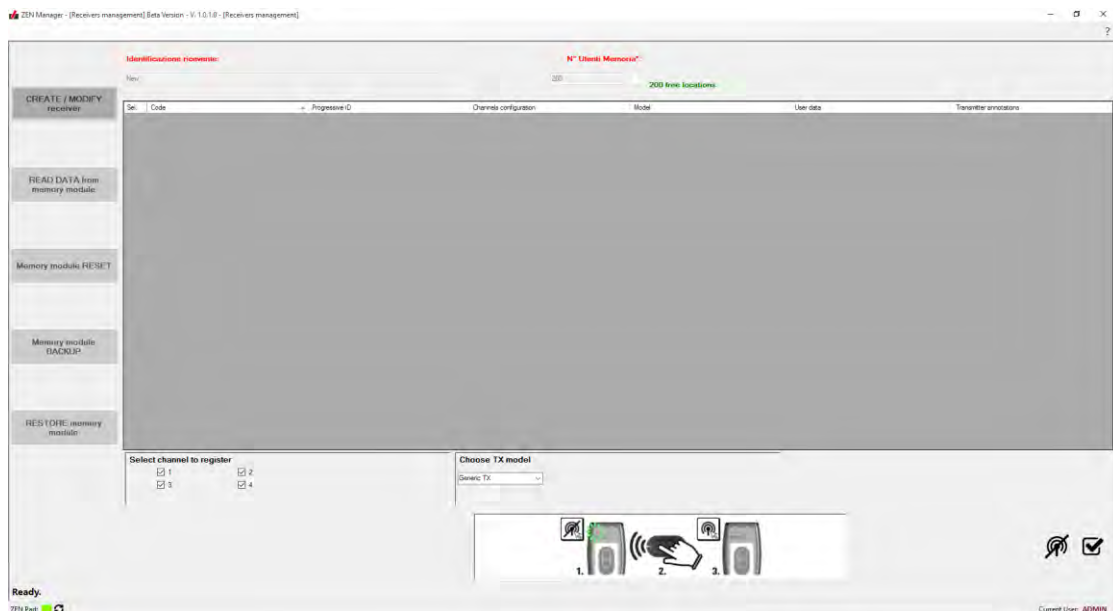
4. Compile the fields as required  **ATTENTION!** the fields in red are obligatory
- Receiver identification (so as to permit immediate recognition)
 - N. Users (100, 200 or 1000. The default value is 200)
 - Operating mode: select Standard or AES-128 Encrypted
-  **ATTENTION!** it will no longer be possible to make any modifications once the user has proceeded to the following step
- Operating mode options
 - Remote acquisition* enabled/disabled ("in field" acquisition activated via existing transmitter)
 - Rolling code protocol enabled/not enabled (Standard only)
 - Fixed code protocol enabled/not enabled (Standard only)
 - Dip-switch protocol enabled/not enabled (Standard only)
 - On the right hand panel it is possible to select a pre-existing site to associate the receiver with, or to create a new one by pressing the  button (the new site will be fully manageable via the Systems menu).
 - If the user changes his/her mind, the association may be cancelled by clicking on 




- Click on Add Transmitters 





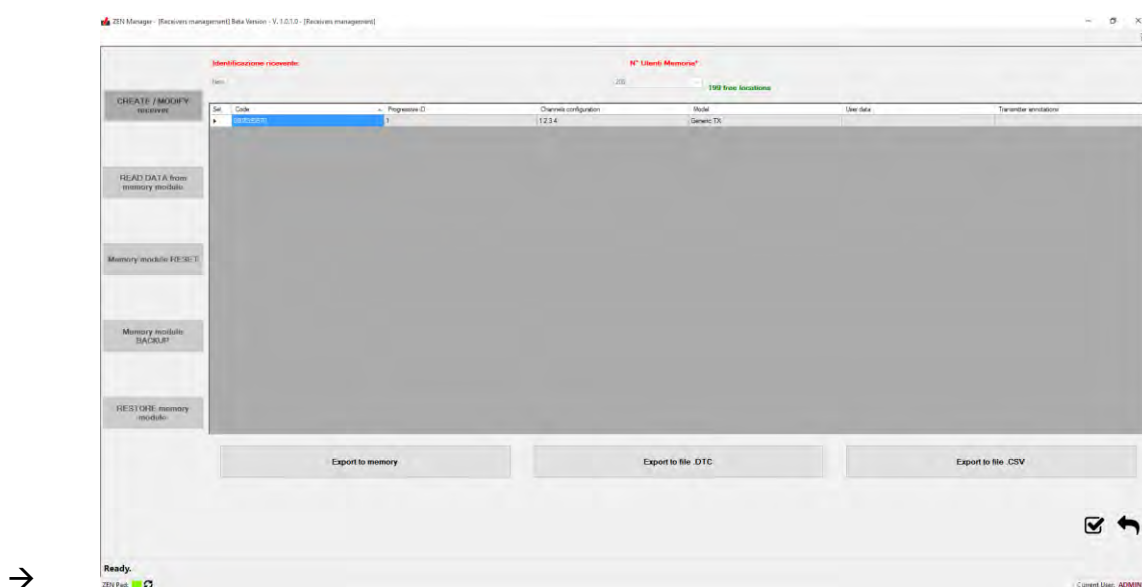
**Read TX via radio
signal**

- Click on




- Click on  to activate radio communications: the LED on the left hand side of the ZEN Pad will start to flash rapidly... Press one of the buttons on each of the transmitters to be memorised, in sequence. Once the desired transmitters have been acquired, press  to deactivate radio communications. At this point, it is possible to modify the user data and notes on the various transmitters that have been acquired. Once all the desired modifications have been implemented, click on the  icon to return to the previous page.
- It is also possible to import transmitters from a memory module inserted in the ZEN Pad, from a pre-existing .DTC file or from another compatible receiver present in the database.

9. In the case of an existing receiver, by clicking on the  icon for each memorised transmitter, it is possible to:
- compile or modify the "User Data" and "Notes" fields, entering unequivocal identification data
 - activate or deactivate specific "channels" by selecting the individual lines
 - reassign progressive IDs, especially when the list includes multiple remote control units with the same ID, for example, when importing a list of TX units from a memory module.
10. Once all the transmitters have been stored or modified as desired, click on the icon  to access the save page



On this page it is possible to export the list of transmitters to a memory module connected to the ZEN Pad, to a .DTC file as a backup copy, or as a .CSV file for processing via a spreadsheet application. This function may be used by a condominium administrator to print a list of the stored remote control units.

To complete the procedure, click on the  icon .

What is a .DTC file?

.DTC files are simple exchange files that contain an image of a memory module. They may be used to save a backup copy of the recipients, or as a tool for transferring data from one receiver to another.



ATTENTION! For reasons of Privacy, the "User Data" and "Remote Control Notes" fields are not exported to the memory modules or .DTC files. This means that sensitive data remain in the database, which is protected by the ZEN Manager "password".

5.2 Creating a receiver in Protected Mode

1. To create a receiver in Protected Mode, repeat the procedure described in the previous section, selecting "Protected Mode" at step 4.

The program generates a 12 character site ID (Site ID) automatically.

Identificazione ricevente:

Receiver data

Operation mode:

Site ID: GPMSF2KF5FGD

☐ Standard ☐ Allow Master Keys

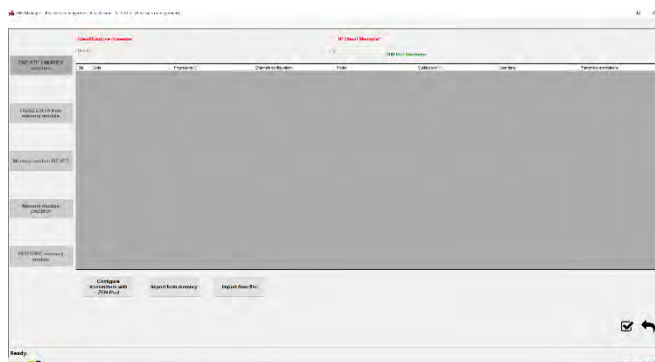
☐ Encrypted AES-128 ☐ Disable Master Keys learning

☒ Protected Mode

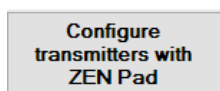
If necessary, it is possible to enter a Site ID manually by clicking on

← "Modify"

2. Click on Add Transmitter  →



3. Click on



4. Position the transmitters to be set-up on the ZEN Pad one at a time, pressing the "Write TX" button each time



The transmitters set-up in this way will be ready for use as soon as the receiver has been installed on the system.

5. Refer to the previous section for a description of the following steps.

5.3 Creating a receiver in Protected Mode starting from pre-existing memory module

If it is necessary to create and manage a receiver in Protected Mode in the database, starting from pre-existing memory module, it is necessary to know the corresponding "Site ID". A typical case is where it is necessary to insert an additional installer when carrying out maintenance work on existing sites.

The Site ID corresponding to the receiver present in the field must be entered during the receiver creation phase, as explained in the previous section. Once this receiver has been created it is possible to import the contents of the module.



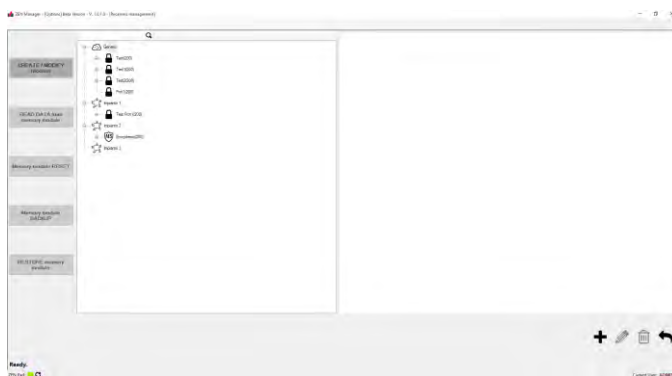
ATTENTION! For more information about this option, contact the Entrematic Post-Sales Service Dept.

5.4 Modify or eliminating an existing receiver

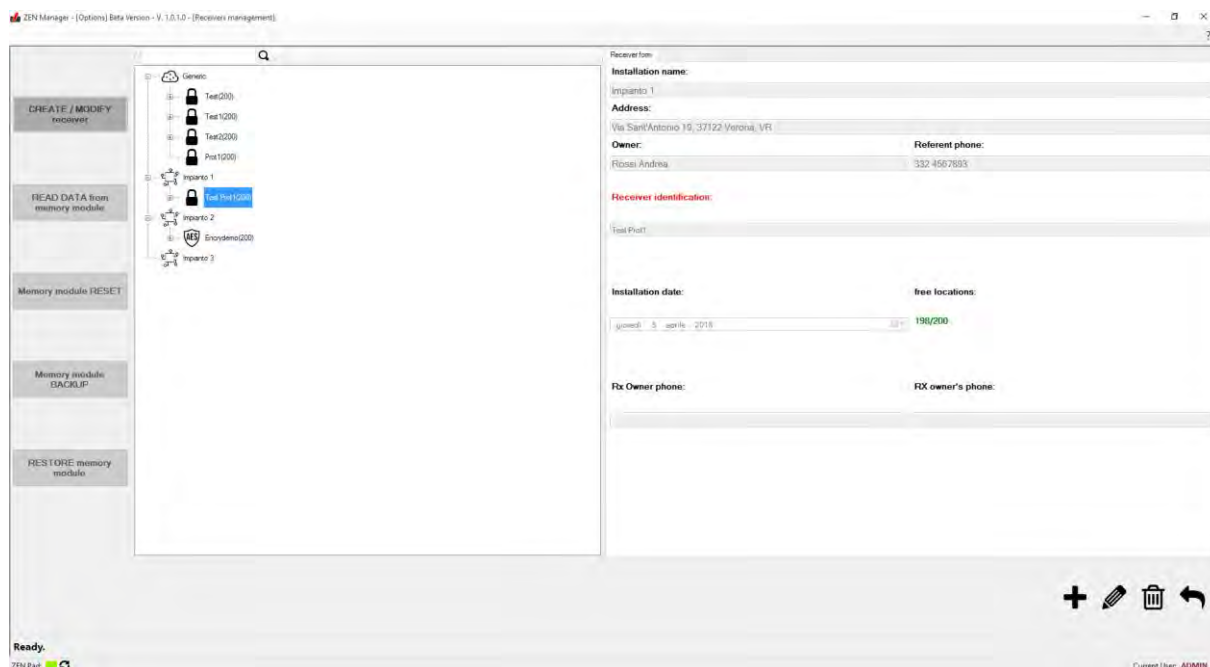
1.



2.



3. Select the receiver to be modified by clicking on the corresponding branch of the systems tree in the panel next to the functions menu. The data for the corresponding receiver appear in the panel to the right. At this point, the Modify and Delete icons are active.



4. Click on the "Modify" icon 

5. Refer the following steps, refer to Section 5.1, para. 4 etc.



ATTENTION! IT IS NOT POSSIBLE to change the operating mode of an existing receiver.

6. To eliminate an existing receiver, click on the "Delete" icon 



ATTENTION! When a receiver is eliminated, all the transmitters associated with it are lost too.

5.5 Managing and using the MASTER Keys

The MASTER keys

The MASTER keys ("Pass Keys") are ZEN transmitters, set-up in AES-128 Encrypted mode, that may be issued to maintenance technicians who carry out service activities on the systems assigned to them at regular intervals, working in Protected Mode. For obvious reason, these keys must be conserved carefully and maintained under control at all times

As explained in para. 4.2, a receiver set-up in Protected Mode may only be used with transmitters set-up to function exclusively with that receiver.

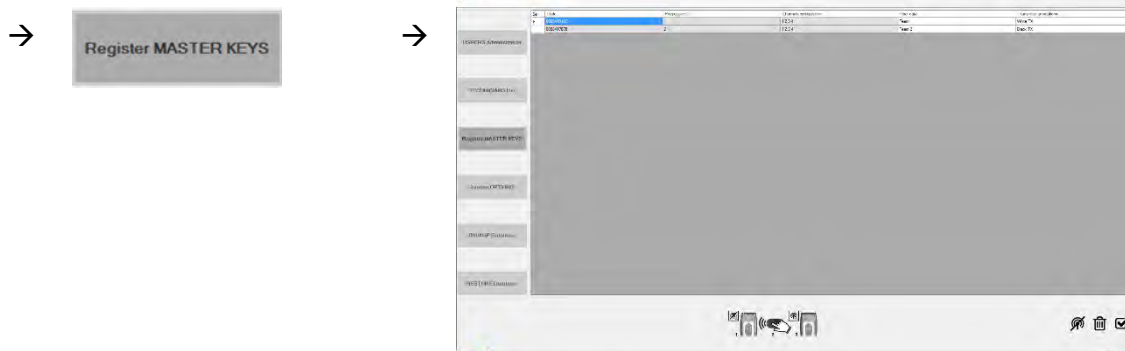
Nevertheless, it is possible to enable the use of MASTER Keys when creating a receiver in Protected Mode. This means that it is possible to enable a receiver to accept up to 10 transmitters in AES-128 Encrypted mode, set-up as MASTER Keys that can be stored on more than one receiver in Protected Mode.




The MASTER Keys may also be added to AES-128 Encrypted receivers. In this case, the maximum limit of 10 master keys does not apply.

In order to manage the MASTER Keys it is necessary to carry out two steps:

FIRST STEP: Registering the MASTER keys:

1. To register the MASTER keys, access the Tools menu and select:



2. Click on  to activate radio communications: the LED on the left hand side of the ZEN Pad will start to flash rapidly...
Press one of the buttons on the various AES-128 Encrypted receivers to be used as MASTER keys, in sequence. Once the desired transmitters have been acquired, press  to deactivate radio communications. At this point, it is possible to modify the user data and notes on the various transmitters that have been acquired, as required.
3. To complete the procedure, click on the  icon.

SECOND STEP: Assigning the MASTER keys to a receiver:

1. To add a MASTER key to a receiver in Protected Mode, the receiver must be enabled to accept MASTER keys during the creation process:

The screenshot shows the 'Identificazione ricevente' window. Under 'Receiver data', 'Operation mode' has three radio buttons: 'Standard', 'Encrypted AES-128', and 'Protected Mode' (which is selected). To the right, 'Site ID' is set to 'GPMSF2KF5FGD' with a 'Modify...' button. Below these, there are two checkboxes: 'Allow Master Keys' (checked) and 'Disable Master Keys learning' (unchecked). Three arrows point from the 'Allow Master Keys' checkbox towards the left.

If active, the "Block master key storage" option prevents the MASTER keys from being saved on the receiver simply by pressing the save button on the receiver present on the system; if this option is not active, this button can be used to save up to 10 MASTER keys.

The only limit on the number of MASTER keys that can be added to receivers in Encrypted mode is that dictated by the available memory space.

2. To assign MASTER keys to a receiver in Protected or AES-128 Encrypted mode, access the Add Transmitters page:



3. The import MASTER keys window is opened:

The screenshot shows the 'Master keys list' window. It has a title bar 'Master keys list' and a subtitle 'Select Master Keys to be imported:'. Below is a table with the following data:

	Code	Progressive ID	Channels configuration	User data	Transmitter annotations
▶	0008418430	1	1 2 3 4	Team 1	White TX
	0008417878	2	1 2 3 4	Team 2	Black TX

At the bottom right, there is a checkbox (checked) and a circular arrow icon.

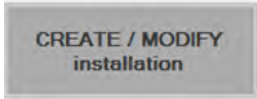
4. Select the MASTER keys to be imported to the receiver from the list. To select multiple keys, click on the desired lines while maintaining the <Ctrl> key pressed. Once the selection is complete, click on to complete the procedure.
5. In the list of transmitters associated with a receiver, the MASTER keys are identified by the word "MASTER" that appears in the "Model" field:

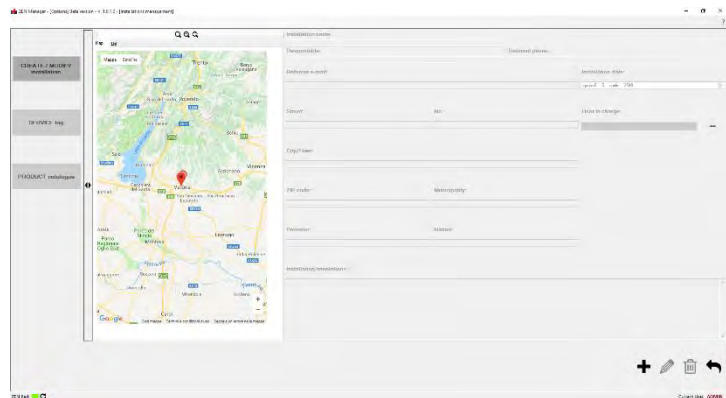
The screenshot shows the receiver configuration window with a table of transmitters. The table has columns: Sel., Code, Progressive ID, Channels configuration, Model, User data, and Transmitter annotations. The data is as follows:


Sel.	Code	Progressive ID	Channels configuration	Model	User data	Transmitter annotations
▶	0008417878	2	1 2 3 4	MASTER	Team 2	Black TX
	0008418430	1	1 2 3 4	MASTER	Team 1	White TX
	0008476885	3	1 2 3 4	ZEN2	Sg. Verdi	

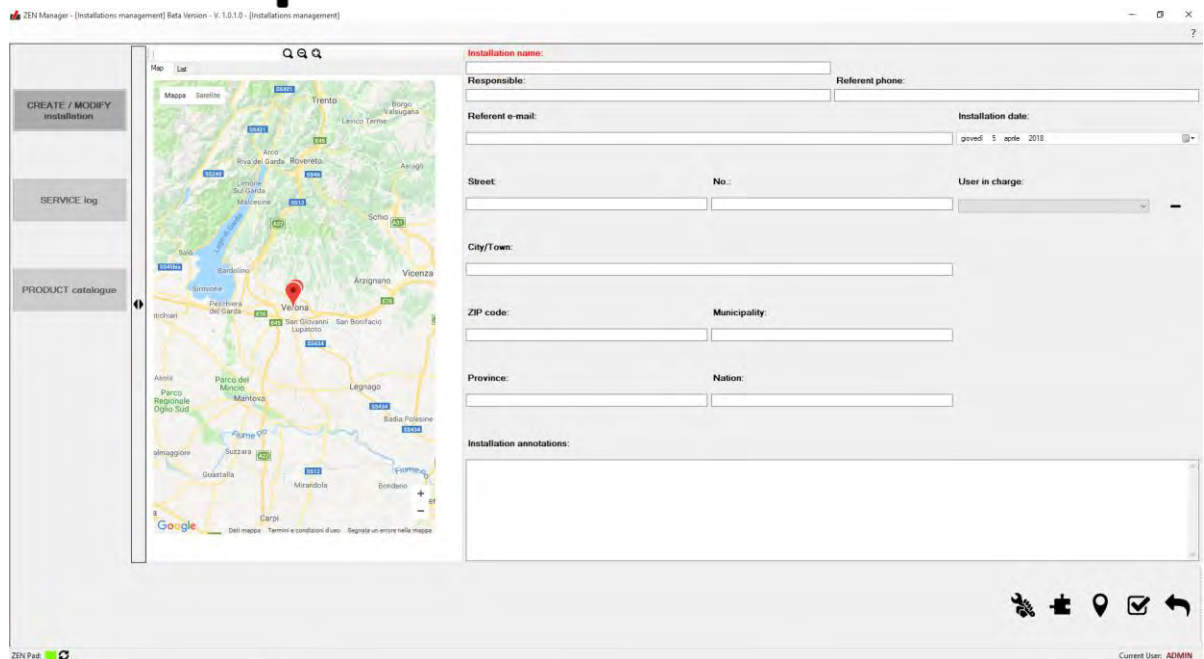
6. Systems management

6.1 Creating a new system

1.  → 2.






3. Click on the icon 

The screenshot shows the ZEN Manager application window with the 'CREATE / MODIFY installation' form. The form includes fields for 'Installation name', 'Responsible', 'Referent phone', 'Referent e-mail', 'Installation date', 'Street', 'No.', 'User in charge', 'City/Town', 'ZIP code', 'Municipality', 'Province', and 'Nation'. A red pin icon is visible on the map, indicating a location. The 'Installation name' field is highlighted in red, indicating it is obligatory.


4. Compile the fields as required  **ATTENTION! The field in red is obligatory**

As far as the system address is concerned, there are two options:

- The address is known and the user wishes to include a "pin" indicator on the map  corresponding to the system:
 - Enter an unequivocal address in the "Street" field: (it is not necessary to compile all the address fields precisely at this point).
 - Click on the geolocalisation icon  → the address fields will be populated automatically by the Google Maps service, and the "pin" corresponding to the position will appear on the map. It is also possible to update the address fields manually.

- iii. If it is necessary to move the "pin" on the map because the position proposed by Google Maps does not correspond to the actual position of the system, simply click on the geolocalisation icon  again, and then double-click on the map where the "pin" should be positioned. As a result, the values in the fields may change, however they may be corrected manually.

b) The geographical position on the map is known, but not all the address details are known:

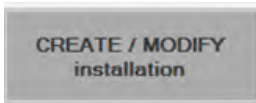
- i. Leave the system address fields empty.
- ii. Click on the geolocalisation icon , and then double-click on the map where the "pin" should be positioned. A "pin" will be placed in this position and the various fields will be populated automatically. If necessary, it is possible to modify the address fields manually.

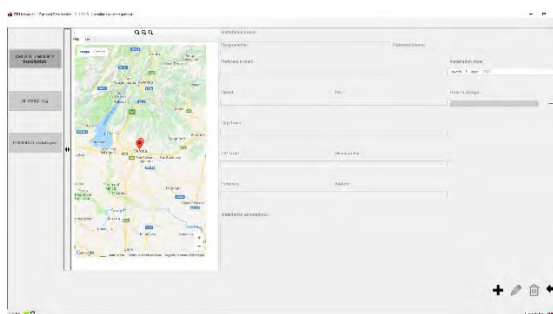
5. Once the procedure is complete click on the icon 



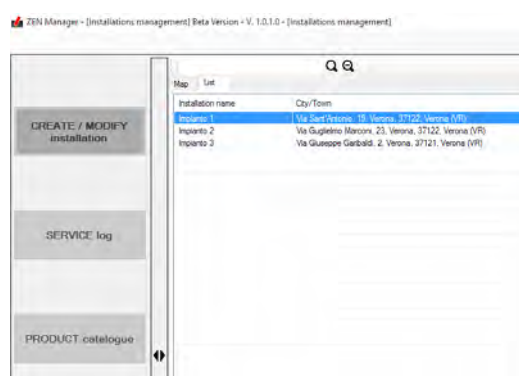
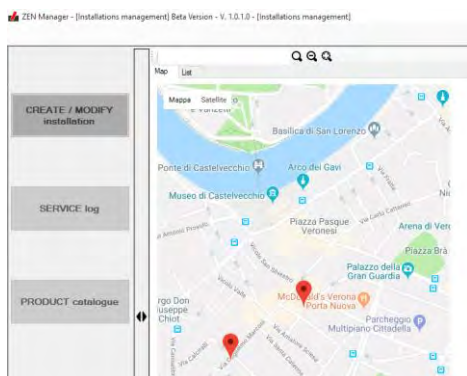
ATTENTION! The type of geographical data supplied by Google Maps may vary from country to country. In some cases, certain fields may remain empty.


6.2 Modifying an existing system

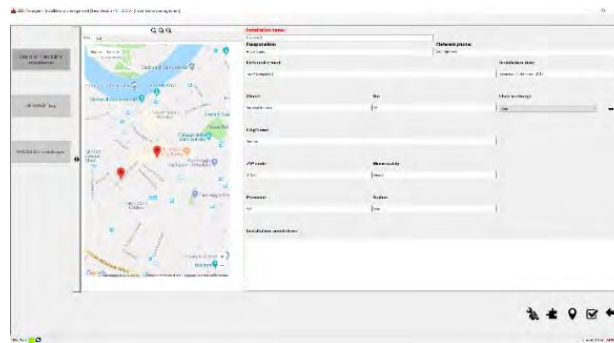
1.  → 2.




3. Select the system to be modified by clicking on the corresponding "pin" on the map. Alternatively, access the Systems List by selecting the "List" tab. The data corresponding to the selected system will appear in the details panel on the right hand side of the screen.

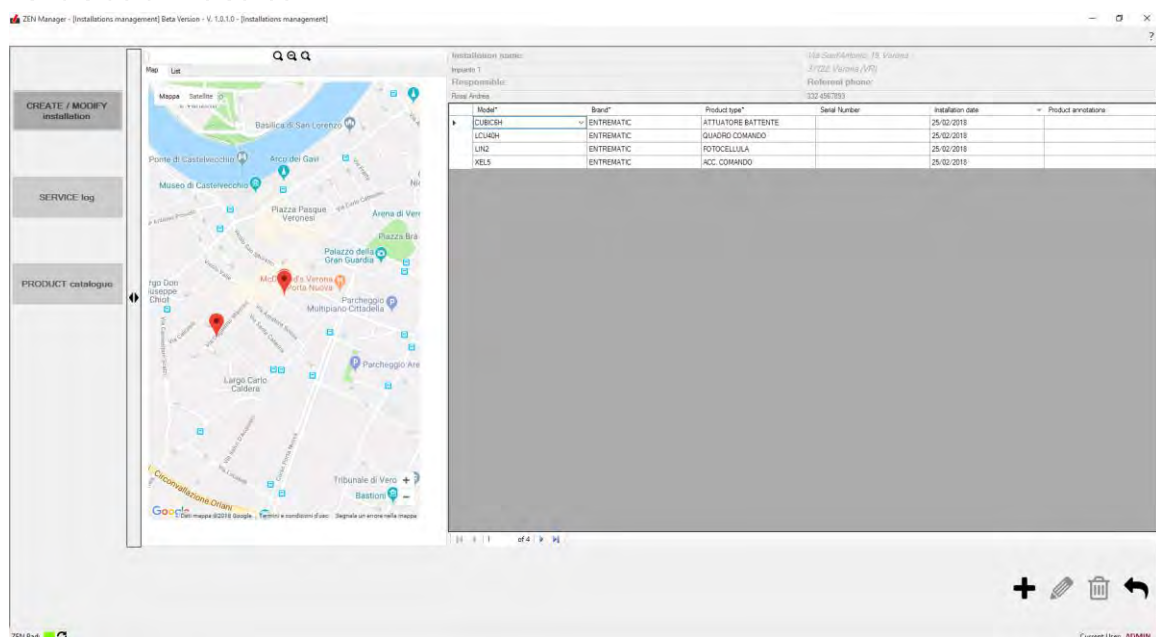



4. Click on the icon  →

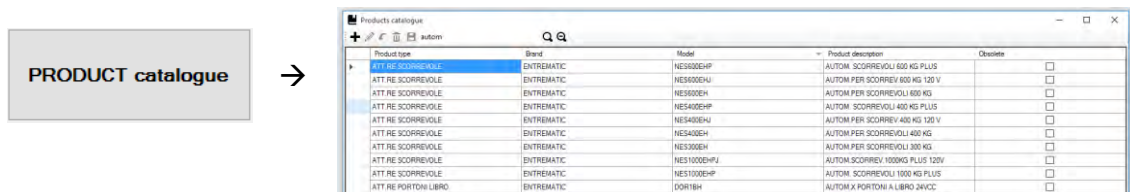



5. At this point it is possible to update the system data, modify the address or reposition the "pin" on the map as described in the previous section.

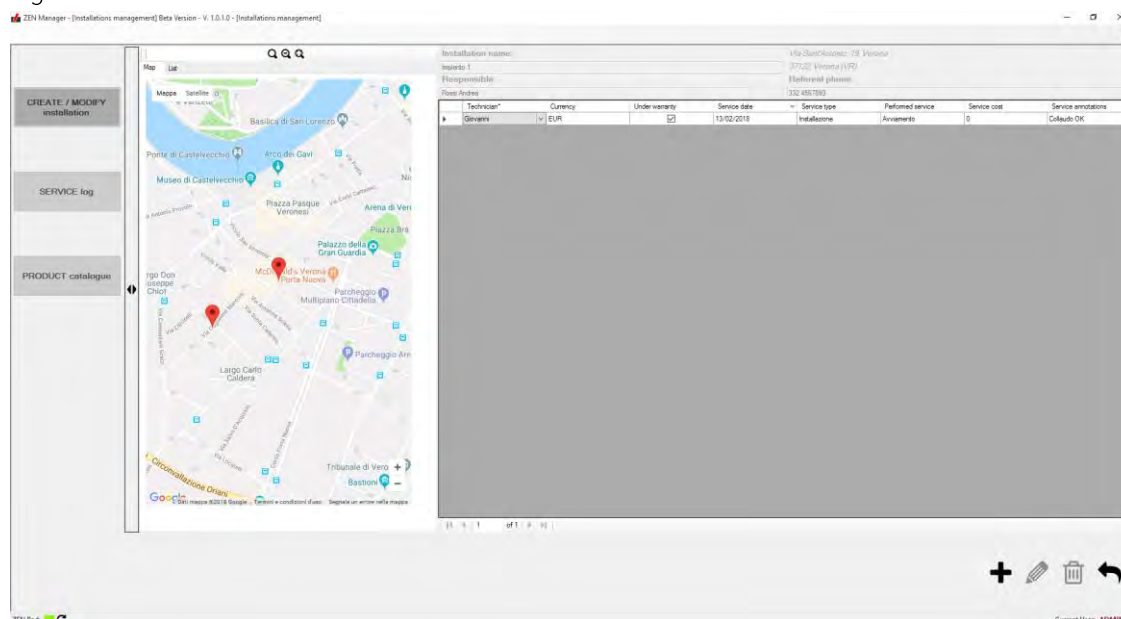
6. To assign products or components to the system, click on the  → icon. The list of products or components assigned to the system appears in the panel on the right hand side of the screen:




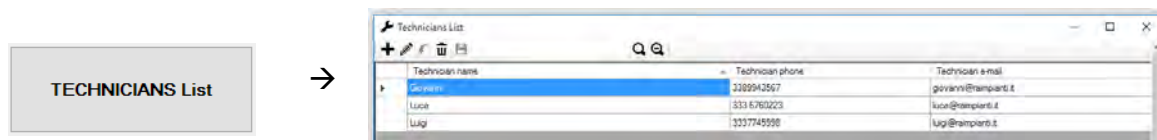
7. It is possible to modify the data associated with each product, or insert notes. To assign a new product to the system, click on the  icon and access the "Model" drop-down list to select the desired product from those available in the catalogue.
8. It is possible to add products to the catalogue, or modify existing ones, by accessing the "Products Catalogue":



9. To log maintenance operations carried out on the system, click on the  → icon. The list of maintenance operations carried out on the system appears in the panel on the right hand side of the screen:



10. It is possible to consult or modify the details for each operation stored in the log, and insert notes. To add a new operation regarding the system, click on the  icon. The Technician responsible for carrying the work out must be indicated for each maintenance operation, by selecting the corresponding name from drop-down menu.
11. To manage the list of Technicians, access the Tools menu and select "Technicians List":



6.3 Maintenance Operations Management

The Maintenance Log function may be used to view all the maintenance operations carried out on the systems, reorder them according to various different criteria, or modify them as required:



All the rights concerning this material are the exclusive property of Entrematic Group AB. Although the contents of this publication have been drawn up with the greatest care, Entrematic Group AB cannot be held responsible in any way for any damage caused by mistakes or omissions.

We reserve the right to make changes without prior notice. Copying, scanning and changing in any way are expressly forbidden unless authorised in writing by Entrematic Group AB.

ENTRE//MATIC

Entrematic Group AB
Lodjursgatan 10
SE-261 44, Landskrona
Sweden
www.entrematic.com

