Ek EKSELANS BY ITS

USER MANUAL

CCA
370001

ACCESS CONTROLLER

V02

TABLE OF CONTENTS

1. Overview

The access controller, CCA, allows the opening of all types of door openers once an authorized RFID card has been read. The reading is performed by an external reader connected to the controller (Ref. LCA). The controller is compatible with several input voltages. It allows to control the voltage pass that feeds the current lock or use the power supply of the controller to power the lock. Thanks to all these compatibilities the controller can be coupled to existing systems or installed in new scenarios.

The programming of user cards can be done through the use of other cards (called master) or through a remote control. It is important to note that, through remote control, other functions can be performed such as setting the opening time, deleting and registering cards selectively, activating or deactivating the sound or LED indicators, … Master cards provide simplicity when registering user cards.

There is no distinction between cards except their programming; For example, a master card could be programmed as a user card. As explained below, it is important to identify each user card with an identifying number.Permite alimentar varios tipos de cerradura (AC/DC) con la propia tensión que alimenta a la controladora.

- It allows to feed several types of lock (AC / DC) with the own voltage that feeds the controller
- It allows to control the voltage that feeds the lock from an external source, either AC or DC
- Allows the connection of a button (push button) for instant door opening
- Users registered in a controller can be cloned in other controllers
- Supports up to 1000 users
- Compatible with Wiegand readers
- Allows management by remote control

2. Accessories

- 1x Remote control (keyboard)
- 1x Master card to add users
- 1x Master card to remove users
- 1x Configuration jumper
- 1x Protection diode
- 1x Screwdriver
- 2x Anchors and screws
- 1x Installation Manual

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3. Connections and indicators

Signal	Terminal strip	Type	Description
BUZZER	Left	Output	Tone indicator to the card reader
LED		Output	Led indicator of the card reader
Do		Entrada	Data[0] reception from the card reader
D1		Entrada	Data[1] reception from the card reader
GND		Entrada / Output	Ground (Connection to the card reader)
GND		Entrada / Output	Ground (DC Voltage feeding)
AC / DC +		Entrada	Common connector for AC or DC power (positive)
AC		Entrada	Connector for AC voltage feeding
OPEN	Right	Entrada	Connect to the external push button (Optional)
NO		Output	Relay output (Normally open)
COM		Output	In "Dry Contact" configuration (Position A): Common Port In "DC Out" configuration (Position B): Ground Connect to external push button (optional)
NC		Output	Relay output (Normally closed)
V OUT		Output	Voltage for feeding the card reader
IR		Input	IR sensor for remote control
		Output	Status LED indicator

Operation	LED	Sound
Stand-by	Red	-
Programming mode start	Blinking red	One bip
Programming command start	Orange	Two bips
Error	-	Three bips
End programming mode	Red	One bip
Opening	Green	One bip

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4. Input and output voltage

The controller supports a wide range of supply voltage, both in AC or DC. The self-lock power supply can be used to feed the controller. See technical specifications on section 7.
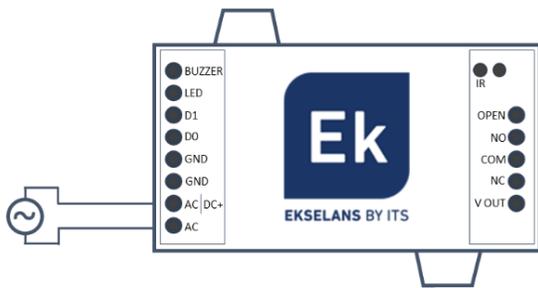
Important note:

Make sure that the supply voltages of the lock and the controller are compatible. Especially in the case of using the supply voltage of the controller to feed the lock (Jumper in position A - Dry Contact-). See section 4.2.

4.1. Controller voltage feeding

The controller can be fed both in AC or DC voltage

In case of powering the controller with alternating current, connect the source to the terminals indicated as "AC and AC".
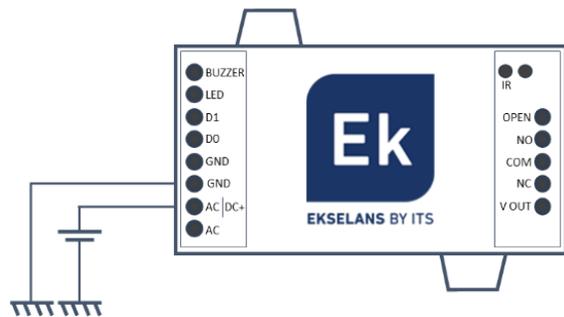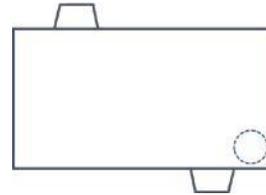
In case of powering the controller with direct current, connect the source to the terminals indicated as "GND and DC +". Respect the polarity.

Check the maximum rating voltage in the technical specification.

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4.2. Door opener voltage feeding

The controller may act on the door-opener in two modes depending on the position of some jumpers. These jumpers are inside the device, in the lower right corner. Open carefully.

There are two positions:

	Position A (Dry Contact) contact jumper **3-1**: It allows the passage of current between an external power supply and the lock. It acts as a switch. Make sure that the lock supports the power supply voltage of the external power supply. This is the factory configuration.
	Position B (Direct step) jumper in contact **3-4 and 1-2**: It feeds the lock with the same voltage that feeds the controller itself. **It will only work with DC DC.**

	A-Position (Dry contact)		B-Position (Input pass)	
Terminals	COM-NC	COM-NO	COM-NC	COM-NO
Stand-by	Short circuit	Open circuit	Same voltage as in the input	0V
Opening	Open circuit	Short circuit	0V	Same voltage as in the input

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To modify the way the lock is fed, open the box and set up the jumpers.

Store the excess jumper if you move from position B to position A.

Attention:

Install the supplied diode directly in the door opener in the case that it supplies the lock with direct voltage -DC.

Do not use the diode in case of powering the system in AC. Respect the polarity of the diode as indicated:
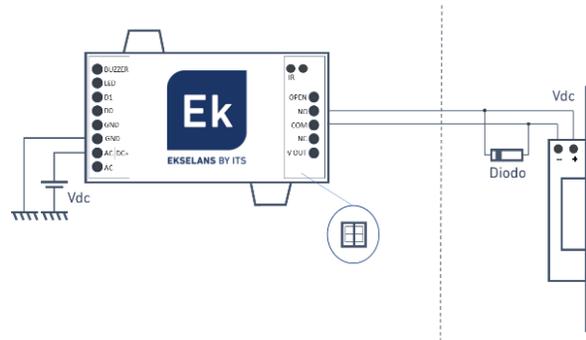
5. Installation

Below are several typical installations with their connection and configuration:
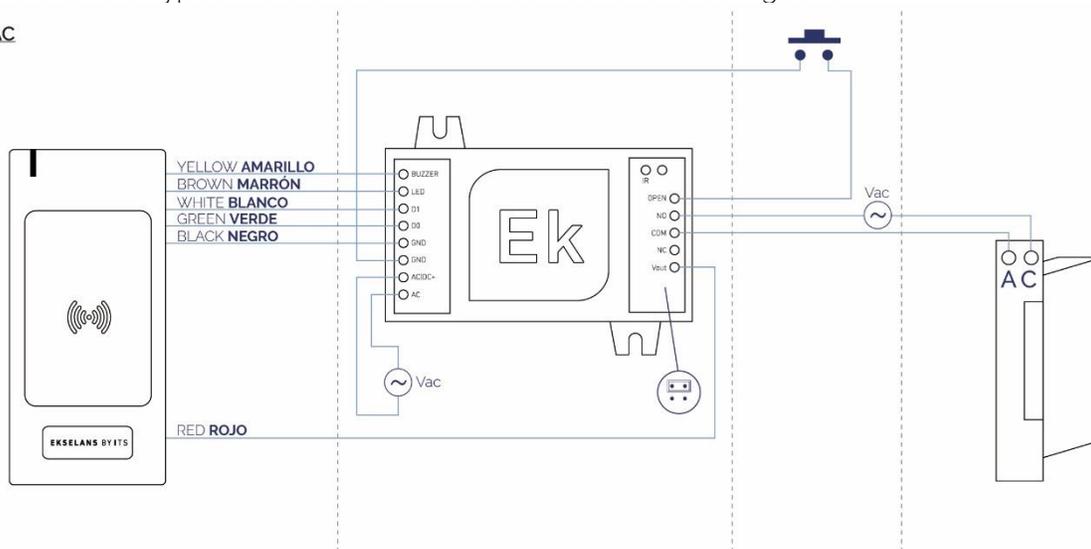
Configuration in dry contact (the lock opens as the controller opens or closes; The controller acts as a switch).

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Configuration in dry contact (the lock opens as the controller opens or closes; The controller acts as a switch).

Configuration in dry contact (the lock opens as the controller opens or closes; The controller acts as a switch).

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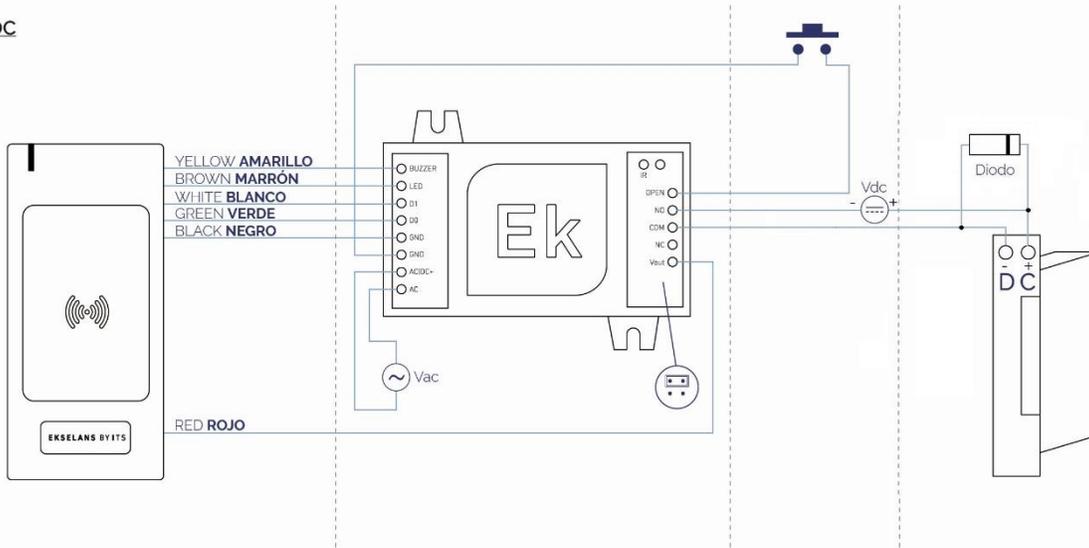
Configuration in "Input Pass" (the same voltage that feeds the controller, will feed the lock). The lock must be of the same power as the CCA.

6. Programming and Users Management

The programming of the cards is stored in the memory of the device so the system is robust in the event of power supply drops. In the absence of power supply the controller will not be able to activate the door opening, as it will not read the cards.
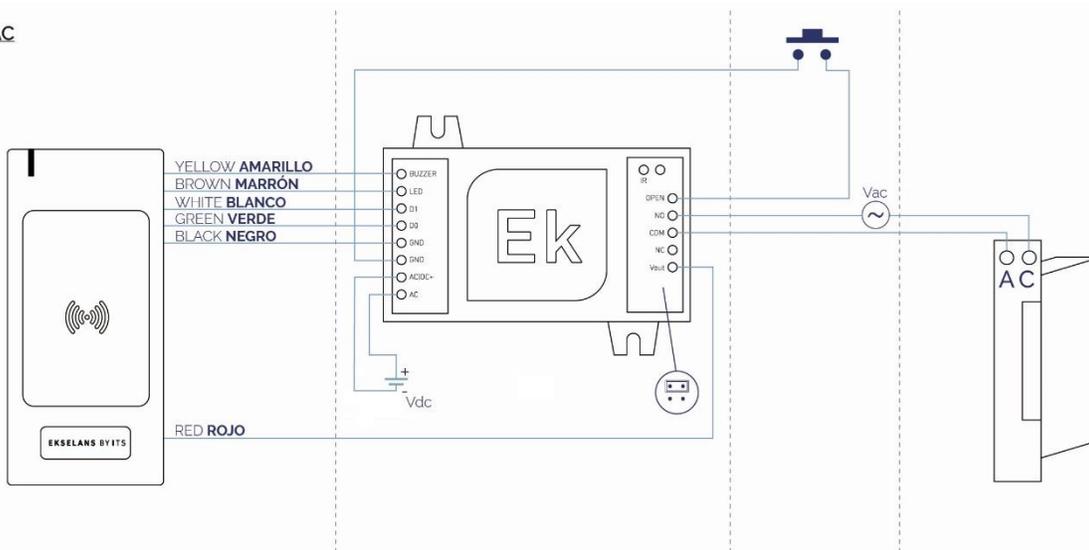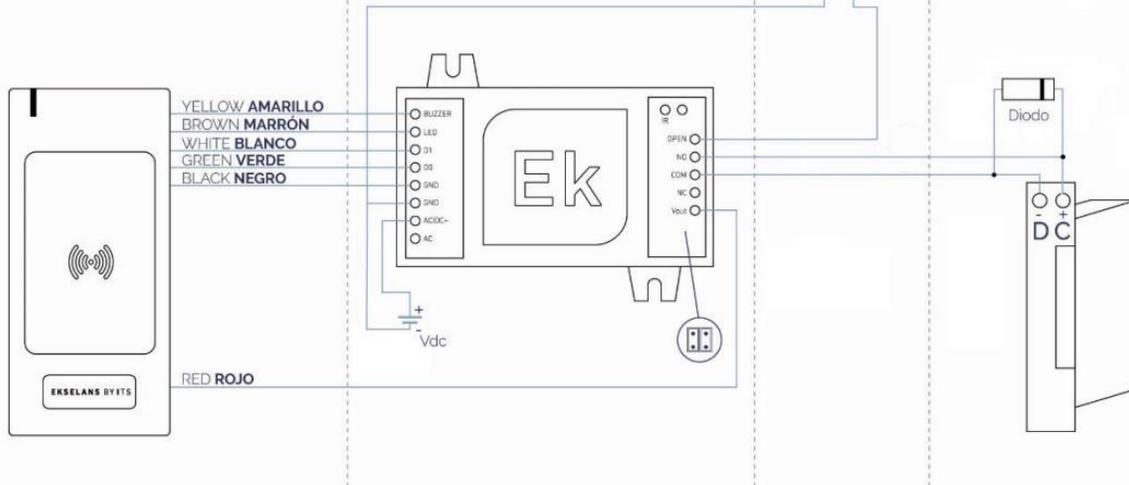
The system supports up to 1000 user cards. Each of them is registered in the system as they are registered, with an identifier (0, 1, 2, ... 999).

Important note:

It is not possible to know which identifier corresponds to each user card, so it is recommended that a record is kept. Keeping the registry will allow deleting a user card (without physically having it). If this is not the case, it will be necessary to delete and re-register all the cards.

Card management can be done by keyboard (remote control) or by other types of cards (called a master).

Two cards are supplied to be configured as master. One will be used to discharge and the other to unsubscribe the user cards. There can only be one set of master cards: Master-High and Master-Low. If you delete out a second set of master cards, the previous one is voided.

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6.1. Numbering user cards

To keep a correct control of the identifier associated with each card, it is important to know that:

- The first card discharged is the 000.

- The second will be 001, the third will be 002 and so on until the last (thousand) that will be the 999.

- If the third card is deleted, a hole (bubble) is created between 001 and 003.

- When registering a new card with the master cards, this bubble will be filled (the new card will be 002).

- With the remote control, you can force a card to have a specific identifier, leaving bubbles if desired.

- There cannot be two user cards with the same identifier.

It is recommended to register the identifier by relating it to the serial number of the card and to the user of the card. It is not recommended to write down the identifier on the card itself. Should it be lost, the identifier to be removed from the controller will not be known.

Identifier	Serial Number of the user card	Person / Department / Apartment
0	0093119565	Mr. Juan Pérez
1	0093119566	Ms. Marta López
…	…	…
999	0093117684	Ms. Teresa Monte

6.2. Programming via keyboard (remote control)

The supplied remote control allows the programming of the controller. To do this, aim it to the IR sensor and press the indicated commands.

6.2.1 Signals when programming the CCA

When you turn on the CCA the LED will change from **green** to **red** and beep.

- Press on the controller: red LED ✻will flash, after 5 seconds it returns to normal state and will stay in fixed **red**.

- Press 1 2 3 4 5 6: LED goes ✻ # green, whistles once and will flash **red**. After 35 seconds it will return to normal and stay in fixed **red.**

- Press Incorrect code: It will emit three beeps and the LED will remain red, it will not enter programming mode✻ # .

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6.2.2. Programming mode (via remote control)

In this mode it is possible to carry out the programming using the remote control by entering different commands.

- To enter this mode, press:

Enter in the programming mode	✳ < Master code > # (Default master code 123456)
Exit the programming mode	✳

- To change the master code

Step 1	Enter in the programming mode	✳ < Master code > #
Step 2	Insert the new master code. It's a 6-digit code	0 < New master code > # < New master code > #
Step 3	Exit the programming mode	✳

If you change the master code, remember it. Otherwise it will be necessary to make a factory default reset.

It must have 6 digits.

6.2.3. User management (via remote control)

Each user card is registered with an identifier that matches its position within the system. The controller can assign auto-incremented identifiers. You can also assign a specific identifier.

- Subscribing:

    To add user cards at a position given by the system:

Step 1	Enter in the programming mode	✳ < Master code > #
Step 2	Pass the card through the reader and press # Repeat this step if several cards need to be registered	1 < Sweep card > #
Step 3	Exit the programming mode	✳

Remember that in the case there are empty positions not assigned to a card (Bubbles), this process will assign to the card registered the first available position/identifier. A bubble will appear when a specific card (Not the last one) has been removed.

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To add user cards in a particular position:

Step 1	Enter in the programming mode	✱< Master code > #
Step 2	Insert the desired identifier and sweep the card.	**1** < Desired identifier > # < Sweep card > Where <Desired identifier> is a number from 1 to 999. Do not insert 00x. Insert x directly
Step 3	Exit the programming mode	✱

- Unsubscribing:

To delete a user card by reading it with the card reader (Not lost card):

Step 1	Enter in the programming mode	✱< Master code > #
Step 2	Sweep the card to be unsubscribed. This position will be empty # .	**2** < Sweep card > #
Step 3	Exit the programming mode	✱
Note that a bubble can be been created. There can be an empty identifier position not linked with a user card.		

To delete a user card from a specific position (The card is lost):

Step 1	Enter in the programming mode	✱< Master code > #
Step 2	Insert the identifier position to be deleted. This position will be deleted	**2** < Identifier Where <Identifier> is a number from 1 to 999. Do not insert 00x. Insert x directy.
Step 3	Salir del modo programación	✱

Note that a bubble can be been created. There can be an empty identifier position not linked with a user card.

To delete all user cards in the system

Step 1	Enter in the programming mode	✱< Master code > #
Paso 2		**2** < Master code > #
Step 3	Exit the programming mode	✱

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6.2.4. Relay configuration (via remote control)

The opening time can be adjusted as wished in a range from 1 to 99 seconds. Its default value is 5 seconds:

Step 1	Enter in the programming mode	✱< Master code > #
Step 2	Insert two digits that indicate the number of seconds that open the relay.	3 (1~99)# Example: Insert <310#> for 10 seconds.
Step 3	Exit the programming mode	✱

6.2.5 Control signals (via remote control)

It is possible to enable / disable basic signalling indicators. By default, those are enabled.

Step 1	Enter in the programming mode	✱< Master code > #	
Step 2A	Indication sound	70 # OFF	71 # ON
Step 2B	Led indication	74 # OFF	75 # ON
Step 3	Exit the programming mode	✱	

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6.2.6. Cloning of controllers

ATTENTION CLONING CAN ONLY BE DONE WITH 12 VDC NOT IN AC. CLONE SO THAT THE CCA IN WHICH THE CONFIGURATION IS TO BE DUMPED (THE RECEIVER) IS NOT VISIBLE FROM THE CONTROLLER, SAVE IT IN A DRAWER OR COVER IT IF NECESSARY.

The controller may be cloned to another CCA controller. The copied data are the configurations of the transmitter controller and the registered user cards.

Make the following connections:
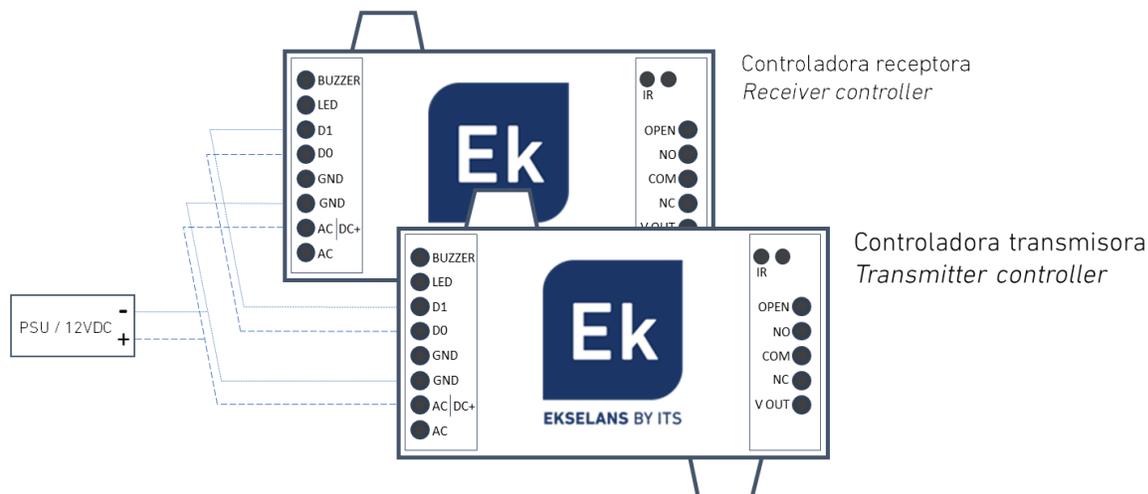
Apply the following steps to the unit to clone (transmitter):

Step 1	Enter in the programming mode	✳< Master code > #
Paso 2	Start the transfer	9 6 #
Paso 3	Wait until the transmission ends	The green **LED** blinks
Step 4	Exit the programming mode	✳

Note that:

- Both units must have the same master code.
- A cloning process with 1000 registered users may last up to 3 minutes.
- Check connections. Avoid short circuits.

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6.3. Programming via master cards

By using the master cards it is possible to subscribe / unsubscribe user cards, without need to use the remote control.

This method does not allow to delete a user card that has been lost, even knowing its identifier.

6.3.1. Registering master cards

The master cards need also to be paired to the system. Should a second pair of master cards is registered, the first will be unregistered. The master cards, cannot be programmed via keyboard.

Step 1	Power off the controller	
Step 2	Make a short circuit between GND and OPEN. Otherwise, should a push button be connected (for opening purposes), keep it pressed	
Step 3	Power on the system again	Two sounds will be heard and the LED will change its colour
Step 4	Present the two cards on the card reader. The first will be coded as **"MASTER ADD"** (For subscribing). The second, will be **"MASTER DELTE"** (For unsubscribing).	After each card presentation, a single sound will be heard. After presenting the second card, the system will enter in stand-by mode. If any card is presented within 10 seconds, the system will enter in stand-by mode.
Step 5	Remove the bridge	

Master cards cannot be programmed by keyboard.

6.3.2. Management of user cards using master cards

To add user cards, perform this process on the reader:

Step 1	Sweep MASTER ADD card	
Step 2	Sweep the user card	More user cards may be swept (A sound will be heard)
Step 3	Sweep MASTER ADD card	

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To unsubscribe cards into the system, perform this process:

Step 1	Sweep MASTER DELETE card	
Step 2	Sweep the user card	More user cards may be swept (A sound will be heard)
Step 3	Sweep MASTER DELETE card	

6.4. Restore to factory default values

The following process restores the original default factory values. Registered user cards, are NOT lost. Registered

master cards, yes. Other values are set back to factory default:

Step 1	Power off the controller	
Step 2	Make a short circuit between GND and OPEN. Otherwise, should a push button be connected (for opening purposes), keep it pressed.	
Step 3	Power on the system again	Two sounds will be heard and the LED will change its colour
Step 4	Keep the short circuit for at least 10 seconds.	A sound will be Heard and will enter in stand-by mode. (Red LED)

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7. Technical specifications

REFERENCE		CCA
Code		037001
Maximum users		<1000
Transmisson protocol card reader – controller		Wiegand
Working voltage / (Nominal)		
AC V (rms)		12~30 / (24)
DC Vdc		9~24 / (12)
Consumption (Stand-by / Maximum*)		
AC mA (rms)		115 / 170
DC mA		60 / 80
Output voltage (For LCA)	Vdc	12
Maximum switching current	A	1
Maximum distance IR- Keyboard **	m	<10
Working temperatura	ºC	-40 ~ 60
Working humidity	% Hum	0 ~ 90
Dimensions	mm	90 x 63 x 22

✳ Including reader / excluding door-opener.

✳ Depending on Ilumination / battery.