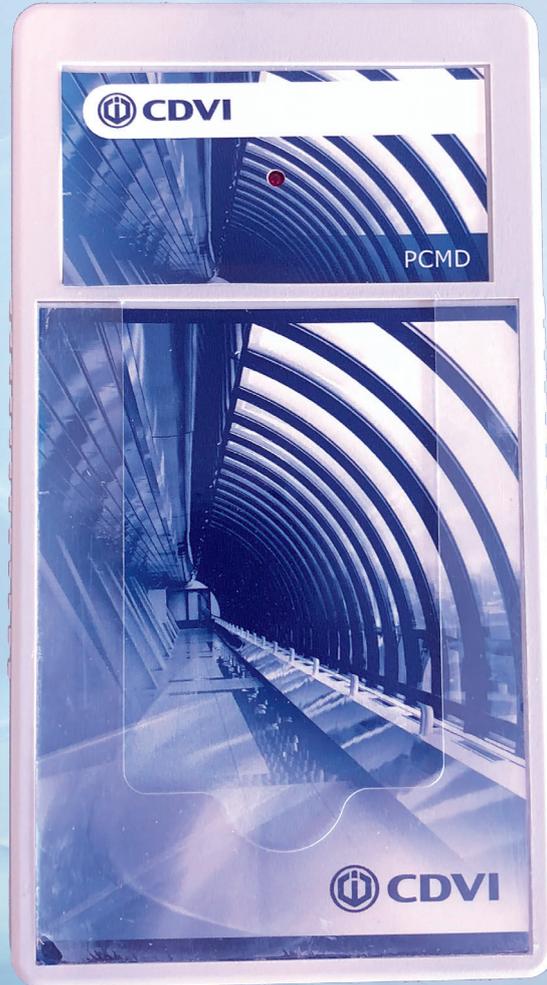




# CDVI

EN

ENGLISH



## PCMD

### Mifare EV1 Desfire Card Programmer

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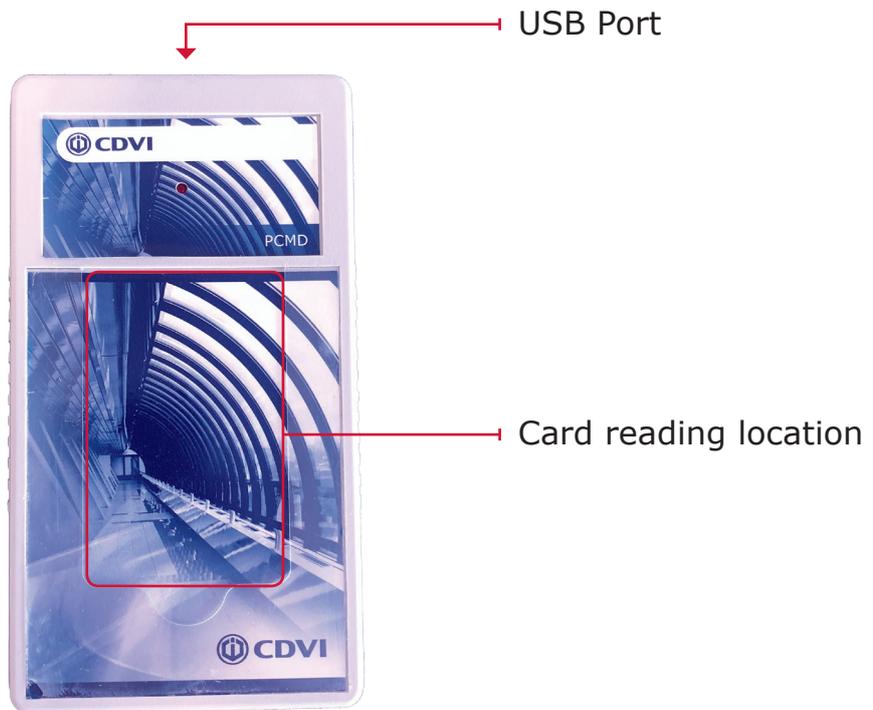
# PCMD

## Mifare EV1 Desfire Card Programmer

*Thank you for buying our products and for the confidence you placed in CDVI.*

### 1] PRODUCT PRESENTATION

Power usage: 5V/200mA via USB



### 2] NOTES AND RECOMMENDATIONS

The length of the USB cable should not exceed 16.5 feet (5 meters).

To avoid any malfunctions, it is recommended to keep electromagnetic devices away from the programmer.

You must use MIFARE EV1 DESFire 4k badges.

Place and leave the card being programmed on the PCMD card reading location as indicated above, until programming is successfully completed.

### FREE TECHNICAL SUPPORT

For technical support in Canada or the U.S., call 1-866-610-0102, Monday to Friday from 8:00 a.m. to 8:00 p.m. EST. For technical support in your area, refer to the last page of this document or visit our website: [www.cdvigroup.com](http://www.cdvigroup.com).

**PCMD****Mifare EV1 Desfire Card Programmer**

### 3] INSTALLATION

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Prior to using this guide:

1. Install the PCMD software and USB driver.
2. Connect the DESFire EV1 readers to the controller as shown in the card reader installation manual.

### 4] USAGE

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The "Application Code (AID)" and 4 "Keys" are at the heart of what makes your new CDVI DESFire EV1 cards unique and secure. They ensure industry-leading AES 128-bit encrypted credentials for your building.

Your unique "Application Code (AID)" and "Keys" are used while encoding the "Visitor Cards" that will permit access to your building with AES 128-bit algorithms.

They will be encoded by you (via the PCMD enrolment unit) with your unique "Application Code (AID)" and "Keys" in the "**Programming card**". Keep the "Application Code (AID)" and "Keys" secret!

You may want to note them down in a file or other media and store them in a secure place when not in use.

The "**Programming Card**" and "**Reader Programming Card**" you will create must also be stored in a secure place. Guard these codes, keys and 2 cards preciously.

The PCMD allows you to do 6 types of actions:

- 1) "**Programming Card**" is used in these situations:
  1. To store your unique "Application Code (AID)" and "Keys" on the card itself
  2. To create a "Reader Programming Card"
  3. To create all "Visitor Cards"
- 2) **Reader Programming Card:** Use to initialize a card reader with the encrypted keys.
- 3) **Visitor Card:** Create encrypted card used by your access control system.
- 4) **User Card:** Not applicable in North America (European market usage).
- 5) **Manage Keys:** Allows you to modify the "Master", "Read" and "Write" keys of a card.
- 6) **Deleting Applications:** Allows you to delete the security keys of a "**Visitor Card**".

# PCMD

## Mifare EV1 Desfire Card Programmer

### 5] PROGRAMMING

Connect the PCMD to a USB port on your PC, start the PCMD software and enter the password (default password is: 12345678).

We strongly suggest to change the default password. Simply "**Click to modify the password**" link as shown in the screen shot below.



# PCMD

## Mifare EV1 Desfire Card Programmer

### 1. Programming Card

The **"Programming Card"** is used to create a **"Reader Programming Card"** and **"Visitor Cards"**. To create a **"Programming Card"**, do the following steps below:

**Step 1:** Select from the **"Action"** drop down menu, **"PCMD Programming Card"**

**Step 2:** Enter a different security keys for each field as follow:



ALL fields **MUST** be completely entered. These fields cannot be less than the maximum allowed. Numbers 0 to 9 and letters A to F can be used (Hexadecimal).

**Application Code (AID) (AID):** Enter 6 digit security key

**Shared Application Key (MKAPP):** Enter 32 digit security key

**Master Key (MAK):** Enter 32 digit security key

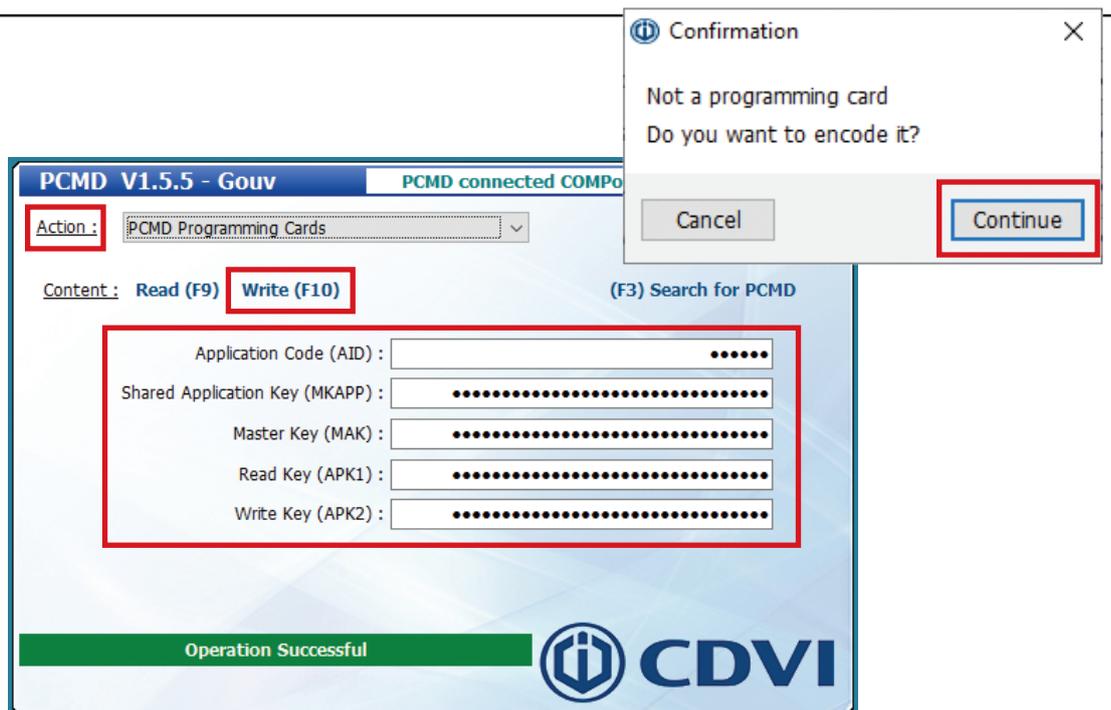
**Read Key (APK1):** Enter 32 digit security key

**Write Key (APK2):** Enter 32 digit security key

**Step 3:** Place the Mifare® DESFire EV1 card at the PCMD card reading location (See page 2). From PCMD software, click on the link **"Write (F10)"**, then click "Continue" on the confirmation pop-up window. "Operation Successful" is displayed in a green box at the bottom of the screen to confirm that ALL security keys are properly stored in the **"Programming Card"**.



It is important to keep the programming card in a place protected from theft (in a safe). You will be able to redo or modify a **"Programming Card"** in the doubt of a security breach.



# PCMD Mifare EV1 Desfire Card Programmer

## 2. Reader Programming Cards

Each DESFire EV1 card reader must be enrolled with security keys. This is done by presenting the **"Reader Programming Card"** to each DESFire EV1 card reader. To create a **"Reader Programming Card"**, do the following steps below:

**Step 1:** Select from the **"Action"** drop down menu, **"Reader Programming Card"**

**Step 2:** Fill in the fields below with the same values as the **"Programming Card"** for each respective field:

**Application Code (AID) (AID):** Enter 6 digit security key

**Primary Key** (use same security key as **"Read Key (APK1)"**): Enter 32 digit security key

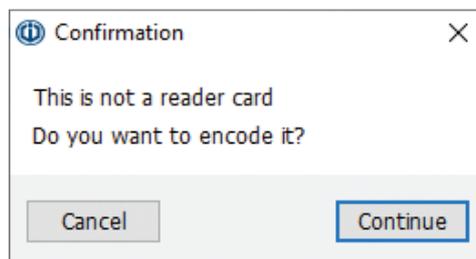
**Secondary Key** (use same security key as **"Write Key (APK2)"**): Enter 32 digit security key

**Step 3:** Place the Mifare® DESFire EV1 card at the PCMD card reading location (See page 2). Click on **"Write (F10)"**, then click "Continue" on the confirmation pop-up window. The "Operation Successful" is display to confirm that ALL security keys are properly stored in the **"Reader Programming Card"**.

**Step 4:** Present the **"Reader Programming Card"** to upload each Mifare® DESFire EV1 card reader with your security keys.



It is important to keep the **"Reader Programming Card"** in a place protected from theft (in a safe).



# PCMD

## Mifare EV1 Desfire Card Programmer

### 3. Visitor Cards

First you will need the **"Programming Card"** to automatically fill in the security keys into the PCMD unit (Step 1 to 3). Then you will be able to start the creation of visitor card (Step 4 & 5)

Here are the steps:

**Step 1:** Select from the **"Action"** drop down menu, **"PCMD Programming Card"**.

**Step 2:** Place the **"PCMD Programming Card"** that you have been created at the PCMD card reading location (See page 2).

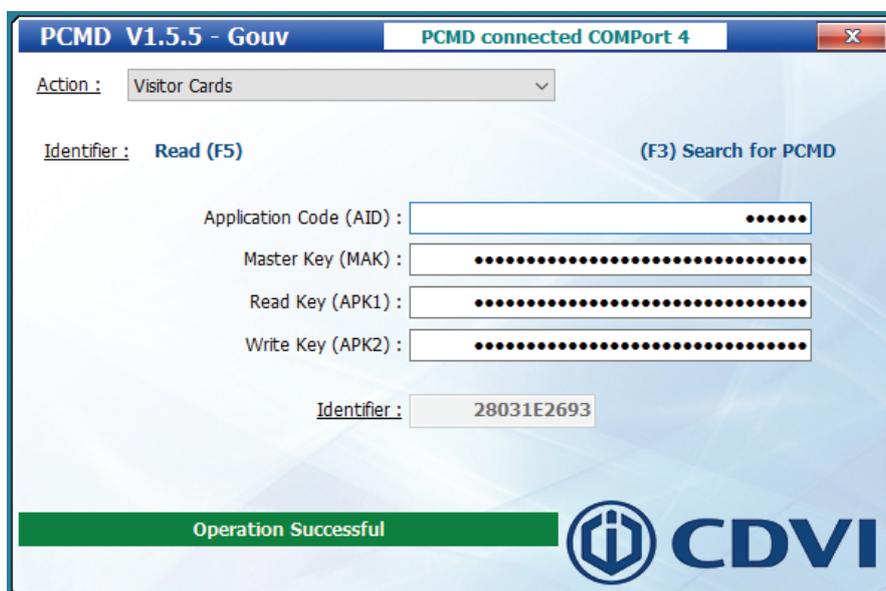
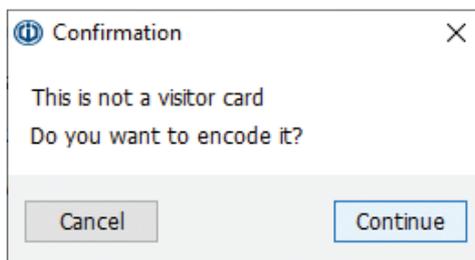
**Step 3:** Then from PCMD software, click the **"Read (F9)"** link (See page 4).

**Step 4:** Then from the **"Action"** drop down menu, select **"Visitor Cards"**.  
The security keys will be automatically fill with the security keys.

**Step 5:** Place a Mifare® DESFire EV1 card at the PCMD card reading location (See page 2). Then click on the link **"Read (F5)"**, then click "Continue" on the confirmation pop-up window. "Operation Successful" and card number (Identifier) are displayed in a green box at the bottom of the screen to confirm that ALL security keys are properly stored in the **"Visitor**

**Cards"**.

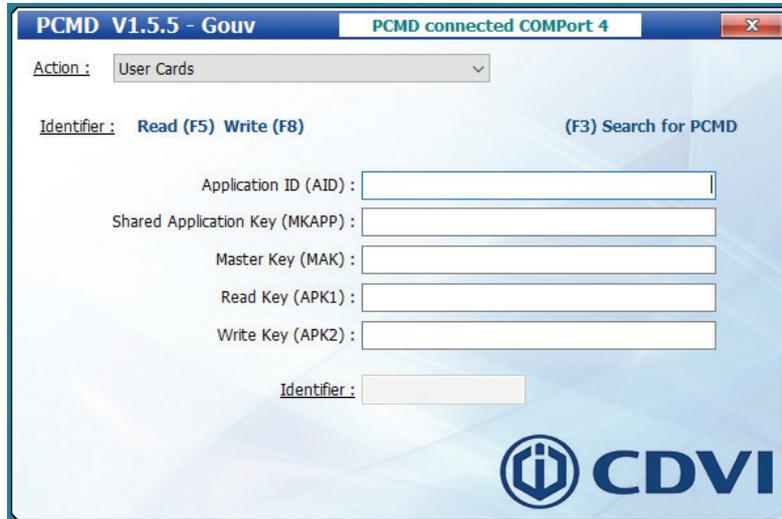
Repeat step 5 to create another **"Visitor Cards"**.



# PCMD

## Mifare EV1 Desfire Card Programmer

### 4. User Cards (not applicable in north America, European market usage ONLY)



**PCMD**  
Mifare EV1 Desfire Card Programmer

## 5. Manage Keys

This screen allows you to modify the "Master", "Read" and "Write" keys of a card.

**Step 1:** Select from the "Action" drop down menu, "Manage Keys"

**Step 2:** According to the card you want to modify, select from the "Key Type" drop down menu, which key you would like to change.

**Step 3:** Fill in each field according to your selection in step 2:

**Application Code (AID) (AID):** Enter 6 digit

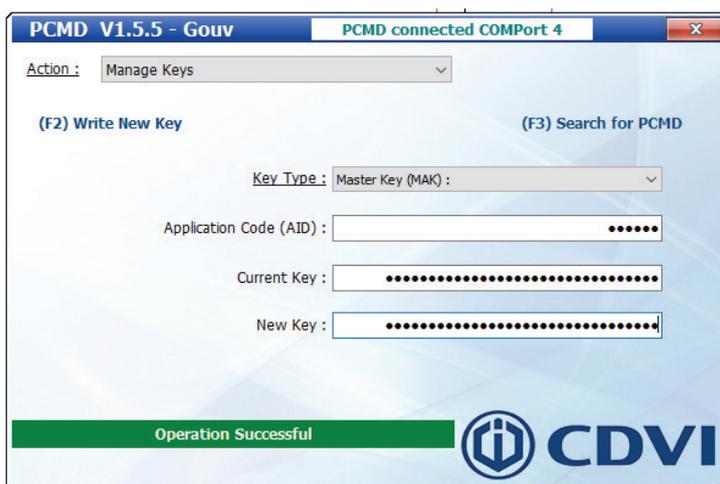
**Current Key :** Enter 32 digit security key

**New Key :** Enter 32 digit security key

**Step 3:** Place the card you want to modify on the PCMD card reading location (See page 2).

**Step 4:** Click on the link "Write New Key (F2)".

**Step 5:** The "Operation Successful" is display to confirm that the new key has been properly modified.  
Repeat from step 2 to modify another card.



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## 6. Deleting Applications

This screen allows you to "Delete Application" (F11) security keys of a **"Visitor Card"**.

**Step 1:** Select from the **"Action"** drop down menu, **"Deleting Applications"**

**Step 2:** For each respective field below, fill in with the same values as the **"Programming Card"**:

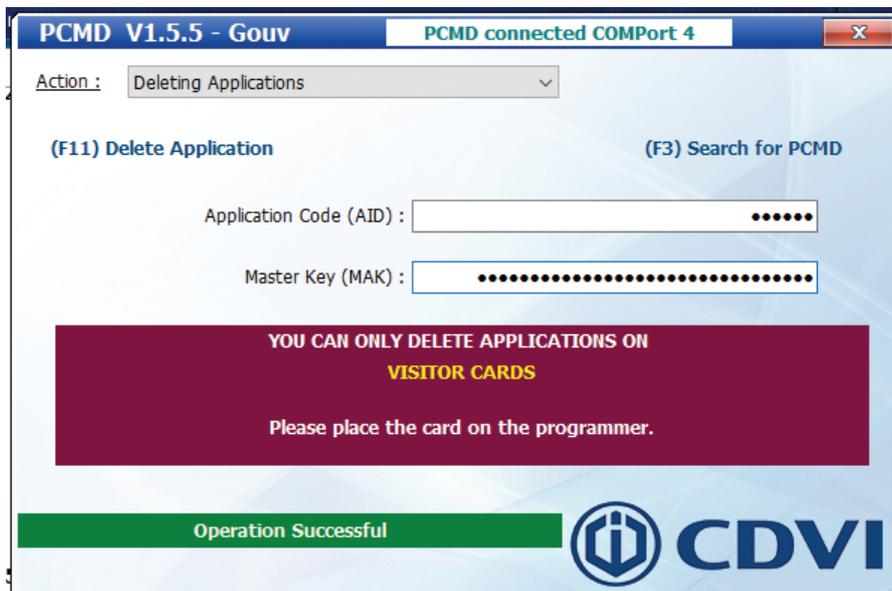
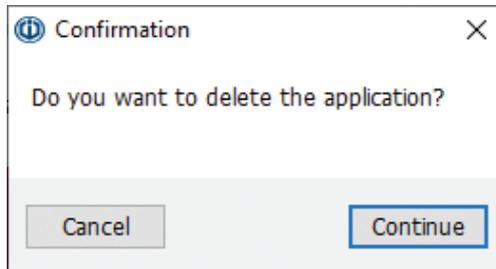
**Application Code (AID) (AID):** Enter 6 digit security key

**Master Key (MAK):** Enter 32 digit security key

**Step 3:** Place the **"Visitor Card"** that you want to delete security keys application on the PCMD card reading location (See page 2).

**Step 4:** Click on the link **"Delete Application (F11)"**.

**Step 5:** Click "Continue" on the confirmation pop-up window. The "Operation Successful" is display to confirm that ALL security keys are properly deleted from the **"Visitor Cards"**. Repeat from step 3 to delete another **"Visitor Cards"**.



## PCMD Mifare EV1 Desfire Card Programmer

### 6] Warranty - Terms & Conditions

The "5 Year Warranty" is offered by CDVI exclusively for CDVI products featuring the logo "5 Year Warranty", and supplied by authorized CDVI dealers participating in the offer. You can obtain the address of the local authorized dealer participating in the offer by contacting CDVI or a local CDVI subsidiary. The "5 Year Warranty" is only applicable to hidden defects detected during the lifetime of the product, as defined by the CDVI Group (5 years or 200 000 operations - whichever of the two expires first).

The "5 Year Warranty" conditions shall not modify the sales conditions between CDVI and its customers.

#### DURATION OF THE OFFER:

- This offer is valid from July 1st 2010; CDVI reserves the right to terminate this offer without prior notice.
- However, any product already registered up to the date of withdrawal of the offer will remain eligible for the "5 Year Warranty".
- The warranty applies only to the available products mentioned in the above statement.

#### CONDITIONS :

- Hidden defects are guaranteed for an unlimited shelf life (period of time before use).
- To be eligible for the "5 Year Warranty", the product must be registered at CDVI within one month of its delivery to the end user, by completing and returning the "warranty" form by fax, email or post to the local CDVI subsidiary. This information may also be registered on line at [www.cdvigroup.com](http://www.cdvigroup.com).
- Only the issue of the "5 Year Warranty" certificate by CDVI can confirm product registration; CDVI may not be held responsible in the event of loss or non-presentation of the form.
- The "5 Year Warranty" only applies to products installed by a skilled and experienced technician with the necessary trade qualifications to install according to the highest standards, respecting the standards, instructions and guidelines defined by CDVI and according to the maximum recommended specifications.
- To enable CDVI to determine whether a product is eligible to claim for the "5 Year Warranty", after prior issue of a return of materials authorization number (RMA) by CDVI, the customer must return the product and all of its accessories in the original packaging with a copy of its invoice. The transport fees shall be paid by the customer and the package must be returned to CDVI or to a CDVI authorized repair centre.
- Eligibility for the "5 Year Warranty" cover must be confirmed by CDVI.
- The "5 Year Warranty" only covers the replacement or repair of the parts acknowledged as faulty by CDVI.
- CDVI reserves the right to respect its obligation by replacing the product or the parts acknowledged as faulty by a standard part replacement or by a product or new parts, or by an updated or improved version of the product with identical or similar functionalities.
- In respect of the applicable law, CDVI cannot be held responsible for material or immaterial damages caused to goods or to third parties and as a direct or indirect result of the installation, utilization, product faults or poor functioning of a device.
- The "5 Year Warranty" is non-assignable and non-transferrable; only the person who registered the aforementioned warranty may benefit from the warranty.
- The "5 Year Warranty" is limited to the eligible product and is strictly limited to the conditions in effect on the date of purchase by the customer.

**PCMD****Mifare EV1 Desfire Card Programmer****NOT COVERED BY THE "5 YEAR WARRANTY":**

- Any product which has undergone even the slightest modification or change;
- Any product which has been installed and/or used with any auxiliary device not supplied by CDVI;
- Any product which has been used for demonstrations or display;
- Any product or its elements considered as "consumables" such as fuses, lights and batteries for example;
- Failure or malfunctioning as a result of an accident, poor storage conditions, unsuitable assembly, bad utilization or handling, poor maintenance, unsuitable repair or intervention.
- Any call-out and installation fees (for assembly and dismantling) as well as transport costs (to and from the repair centre) and maintenance fees.

**THE INSTALLER'S RESPONSIBILITIES:**

When registering the 5 Year Warranty on line, the installer is responsible for the information supplied. In case of errors, the 5 Year Warranty will not be applicable.







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