



# CardReset application



## Installation and user guide

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## I. Purpose of the application

The purpose of the CardReset application is to enable Merchant Testcards' customers to perform an online authorization on the cards, which resets a card's offline counters, and to issue a PIN Unblock script, which re-activates offline PIN presentation on cards where the PIN was blocked.

The CardReset application should not be used with live, production bank cards, as such use can lead to the card being blocked or to the issuing bank identifying fraud attempts.

## II. Disclaimer

The CardReset application is intended to work with the cards provided by Merchant Testcards, and although it will also work with a variety of other standard test cards, Merchant Testcards will only provide support for the use of the application with cards provided by Merchant Testcards. In addition, Merchant Testcards cannot be held responsible for the consequences of using the application on cards other than those provided by Merchant Testcards, especially live bank cards.

The CardReset application is based on a Python script, and as such is a programming language script which makes use of other Python libraries. Merchant Testcards cannot be held responsible for misuse of the CardReset application and to any damage that results on your machine.

## III. Prerequisites

The application should be run on a PC. This document shows how to install it and run it on a Windows 10 PC, but you should be able to do the same thing with a different version of Windows. The source script is available on request for users of different operating systems, such as Linux.

You will also need a USB smartcard reader, commonly known as PC/SC card reader.



This guide was created with the SDI011 Dual Interface Smart Card Reader, but there are plenty of different readers that will work just as well. You can source a reader for under €20 on eBay or Amazon.

## IV. Installation on Windows

Installation on a Windows system is straight-forward:

- Download the compressed folder (zip) from this [link](#)
- Unzip the folder
- Create a shortcut for file “CardReset.exe” on the Windows desktop

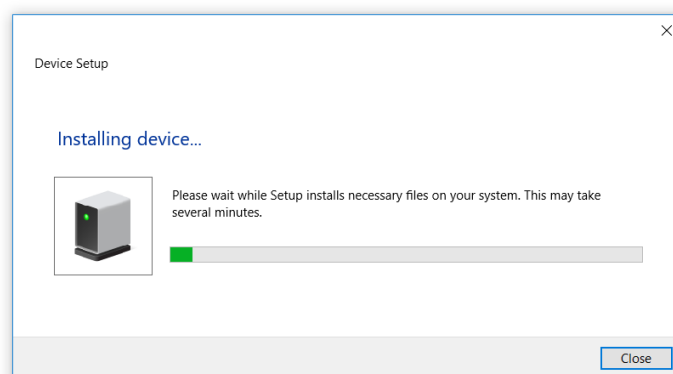
## V. Installation on a different operating system

Installation on a different operating system, such as Linux, requires to execute the Python script, which has a few prerequisite steps:

- E-mail us to receive the source code at [team@merchant-testcards.com](mailto:team@merchant-testcards.com)
- Unzip the folder
- Ensure that Python 3.x is installed on the machine
- Install the following Python packages: wheel, pycard, pycryptodome
- Execute script “CardReset.py”

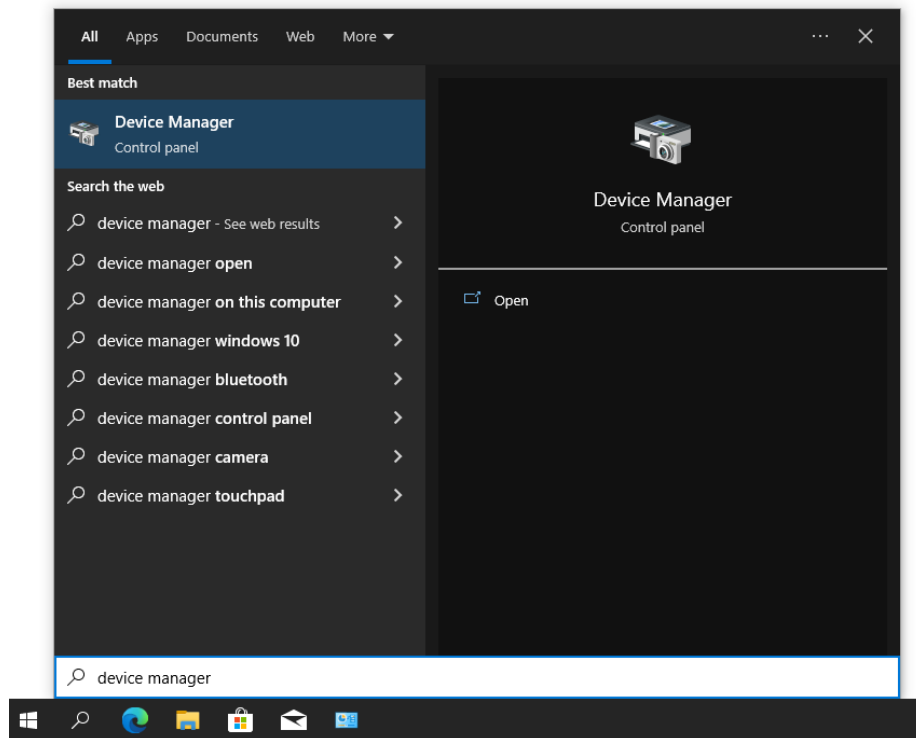
## VI. Connecting a PC/SC card reader

After the installation is complete, you should connect a smartcard reader. When you connect a smartcard reader for the first time, Windows installs the drivers:

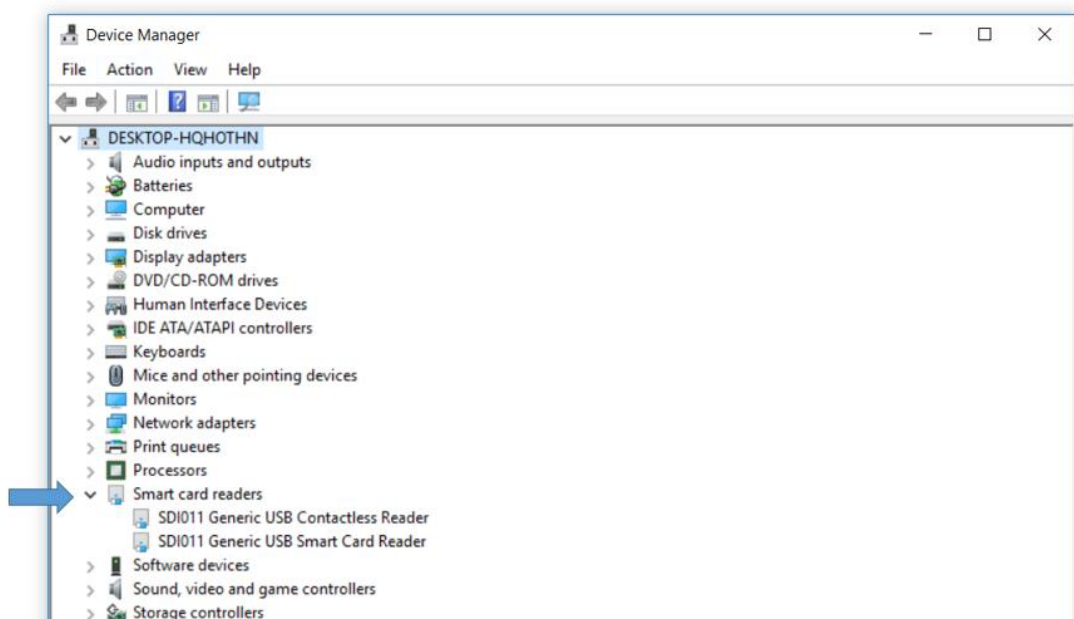


You should check that the smartcard reader was correctly installed:

- Click on the Windows start button, and type “Device Manager”
- Open the Device Manager



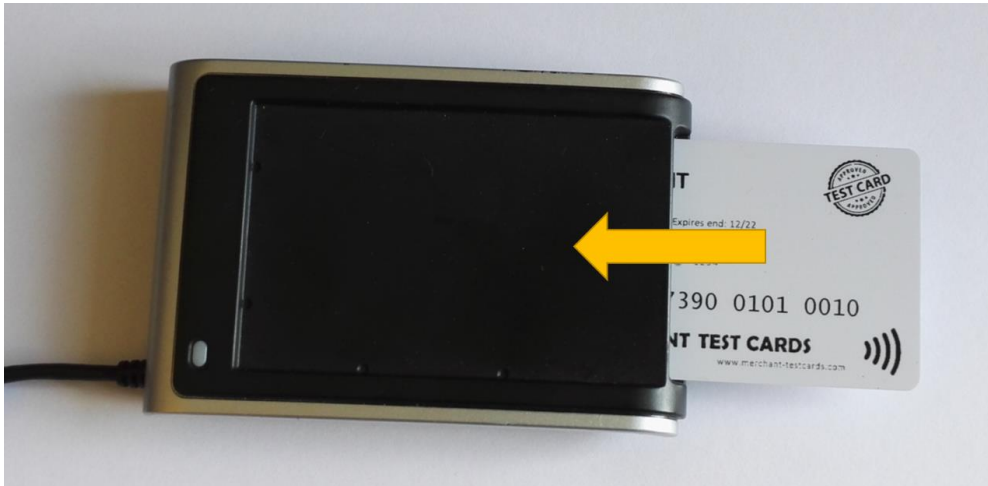
- Expand the “Smart card readers” list, and make sure that there is at least one entry in it. The name of the readers might differ from the image below, depending on the type of smartcard reader you use. You may need to download the drivers from the device manufacturer.



## VII. User's guide

The application recognizes the card being inserted and acts accordingly. The process is the same for all the cards.

The first step is to insert one of the cards into the smartcard reader:



Then, on the computer, run the CardReset application.

This opens a Command Prompt and runs a full, online transaction on the card.

The application should take no more than 10 seconds to complete. When it is completed, you will be notified and prompted to press the Enter key to close it.

```
C:\Users\CardReset\Desktop\CardReset\CardReset.exe
9F02-000000000001
9F03-000000000000
9F1A-0840
95-000000000000
5F2A-0840
9A-171120
9C-00
9F37-00000000

Second Generate AC - TC
80 AE 40 00 1F 30 30 00 00 00 00 00 01 00 00 00 00 00 08 40 00 00 00 00 08 40 17 11 20 00 00 00 00
80 12 40 00 15 C6 ED E7 85 B3 83 A5 28 06 01 0A 03 60 00 10 90 00

Found tag 9F27 with value "40"
Found tag 9F36 with value "0015"
Found tag 9F26 with value "C6EDE785B383A528"
Found tag 9F10 with value "06010A03600010"

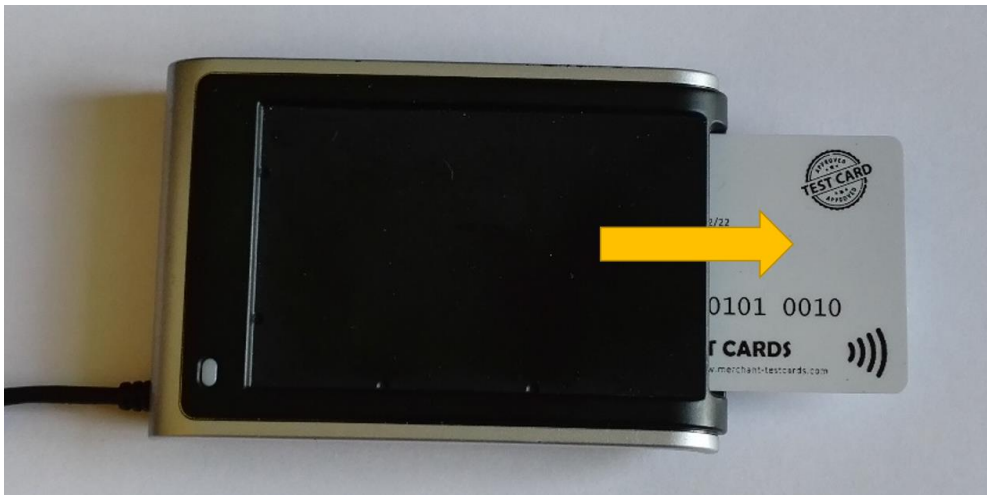
Generate AC returned TC

Script: PIN Unblock
84 24 00 00 08 6B 3C 5C 27 91 ED 26 39
90 00

Online transaction successful: counters and PIN are reset

Press Enter to exit
```

Finally, remove the card from the smartcard reader:



The card can be used for transactions right away.

You can repeat the process for each card that needs resetting.