



Vectron Systems

Leading in POS Technology



# Vectron T10

User manual





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Your Vectron dealer



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# 1. Preface / Introduction

Thank you for having purchased the product Vectron Transponder reader/writer T10. You decided in favour of an innovative system, which will support you and your employees in your daily work.

The Vectron T10 enables you to establish a server-based, cashless payment system within a closed area.

You can connect the Vectron T10 to an existing VPOS-installation and start working in no time.

The Vectron T10 boasts intuitive and smooth operation. It hardly requires any technical knowledge and abilities.

Chapter 5 gives an overview on the components and functioning of the system.

Chapter 6 describes the starting of the system.

Chapter 7 describes function and display of the Vectron T10.

Service and maintenance are described in chapter 8.

Please follow the instructions for use and notes on safety on the following pages.



This manual does not contain information about the required programming of Vectron POS systems to operate Vectron T10. This requires detailed knowledge and is therefore incumbent on specialised Vectron dealers.

Please address all further questions to your Vectron dealer from whom you purchased this system. He will be glad to assist you.

Vectron Systems AG



## 2. Notes on safety

When operating the Vectron Transponder reader/writer T10 please follow these instructions:

- Only by means of proper handling and maintenance, as well as proprietary operation according to the reference instructions, the safety and health of individuals and of animals and property will not be endangered.
- Improper installation, maintenance or operation may result in injury to the user and damage to the devices.
- Maintenance and repair of the Vectron T10 is to be carried out only by trained personnel, certified by the manufacturer.
- Vectron T10 has been manufactured to the highest possible standards. However, we cannot guarantee that the delivered components, their constituent parts and the documentation are, and will remain, free of faults.
- The manufacturer does not accept liability in case of improper handling and maintenance and improper operation of the Vectron T10.

### 3. Instructions for use

Please follow these instructions:

- Only operate the devices with the dealer installed peripherals.
- Do not insert any foreign objects into any openings on the devices.
- The power supply Vectron PS80 must be plugged into a properly grounded outlet.
- The devices may not be exposed to direct sunlight. Ensure there is sufficient airflow around the device to allow for adequate cooling.
- Protect the device from dust and humidity.
- Protect the device from improper voltages.
- Clean only with a damp cloth using a mild cleanser.
- Keep the packaging material for dispatch purposes.

In case of service please contact your Vectron dealer. When sending the devices for repair always use the original packing. For damages due to improper packing the manufacturer does not accept liability.

## 4. Disposal

Directive 2012/19/EU (WEEE)



Waste electric and electronic equipment must not be disposed of together with domestic waste. Vectron Systems AG takes back waste electric and electronic equipment that has been used for commercial purposes and that was produced by or on behalf of the company. The company disposes of the waste electric and electronic equipment properly.

The legal take-back obligation applies for devices that were put on the market after 13 August 2005. In addition, Vectron Systems AG extends this obligation to all devices that have been put on the market as of 1 January 2004.

Please send back waste electric and electronic equipment that was produced by or on behalf of as well as their accessories in the original packaging, marked „Waste electric and electronic equipment“ franco domicile to Vectron Systems AG.

**WEEE-Reg.-Nr. DE 91733199**

# 5. Vectron T10

The Vectron T10 enables you to establish a server-based, cashless payment system within a closed area. This reduces error sources and limits cash transactions to a few points of sale.

Mobile Vectron POS systems are optionally equipped with an integrated module for a contactless card system, a so-called transponder. By using the Vectron T10, stationary Vectron POS systems as well as hybrid systems in stationary mode are able to read RFID-cards. Vectron therefore provides a closed and fully compatible system in the field of loyalty programs. Mobile terminals as well as all stationary Vectron POS systems can read the rugged and wear-resistant RFID cards.

The Vectron RFID card technology boasts a large variety of applications. The cards can be used to sign in and out operators, to open guest checks and for vouchers, staff sales or other discounts.

### 5.1. Shipment

Please check the correct delivery on receipt. In case of incorrect delivery please contact your Vectron dealer.

Your local dealer will supply the system and install it. You may then start working immediately.

## 5.2. Components and mounting

The product Vectron Transponder reader/writer T10 includes the Vectron T10 incl. combined power- and data cable, the external power supply Vectron PS80 and a user manual.

### 5.2.1. Vectron T10

The Vectron T10 writes and reads respective cards. The used format is „Tag-It HF-I plus®“.



EN

Fig. 1: Vectron T10

This technology is used to sign in and out operators and to open guest checks. Furthermore, you can use RFID cards for vouchers, staff sales or other discounts. The operator simply puts his card onto the surface of the Vectron T10. The transponder module reads the card data and releases the respective authorization for this operator.

Text control of the Vectron T10 is completely effected via Vectron POS software.

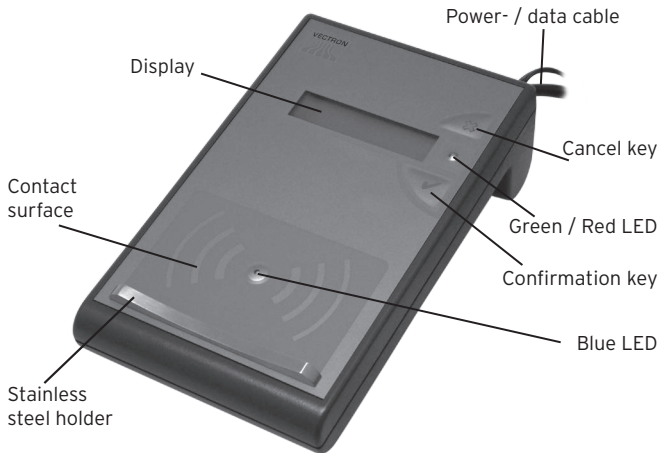


Fig. 2: Vectron T10 components

**Display:**

The transfective LCD with background lighting has two lines, each with 16 characters. Info texts indicate the current status or an expected activity.

**Contact surface:**

A highlighted reading-/writing surface for the RFID card and the radio symbol round the blue LED mark the contact surface. This surface needn't be covered completely; the transponder module recognizes the card even if only part of the surface is covered.

**Stainless steel holder:**

The stainless steel holder serves to hold the RFID card.

**Power- and data cable:**

A Y-cable is attached fixed to the transponder housing. It consists of a power- and a data cable, each of them has a length of 2 m.



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**Keys:**

A confirmation- and a cancel key are available for future applications.

**LEDs:**

The blue LED is in the middle of the contact surface and it serves for visual user guidance.

Another red/green status-LED right of the display indicates the current status of Vectron T10 by lighting up or by flashing slowly or quickly.

**Buzzer:**

The buzzer informs the operator acoustically about activity or an error.

## 5.2.2. Power supply PS80

The Vectron Transponder reader-/writer T10 is supplied via the power supply PS80.



Fig. 3: Power supply PS80



**Attention!**

### **Danger of destruction!**

Only use the delivered PS80 for the power supply of the Vectron T10.

Using other power supplies can damage or destroy the Vectron T10.



### **5.3. System concept and functioning**

Using the Vectron Transponder reader-/writer T10 at a stationary POS system enables operator sign in and -out and guest check opening per RFID card with format „Tag-It HF-I plus®“.

Vectron T10 can also be used for establishing a server-based customer-, discount- or bonus card system. Likewise, you can realize a server-based In-house payment system, e.g. for clubs, discos, stadia, saunas, canteens, golf clubs, zoo, etc. Each guest gets a card, which he can use for ordering at any Vectron POS system during his stay. The POS system manages the orders and the guest pays when leaving the location. Furthermore it is possible to collect orders over a longer period in the POS system and to issue e.g. monthly invoices.

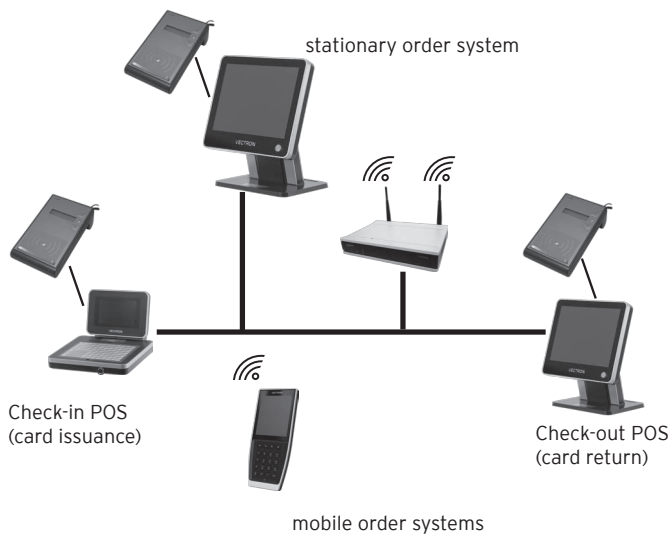


Fig. 4: Example for a server-based In-house payment system

Thanks to the rugged, splash-proof housing the Vectron T10 can well be used in the counter area, in a sauna or in a skiing area.

Operation requires a stationary Vectron POS system with Vectron POS software 4.2.12.0 or higher.



**Note**

Tag-it® RFID-cards can be initialized in any way. Please contact your Vectron dealer.

## 5.4. Technical data

### 5.4.1. Hardware

|                         |   |
|-------------------------|---|
| <b>Display</b>          | LCD 2x16 characters, transfective   |
| <b>Other display</b>    | Status-LEDs   |
| <b>Input</b>            | 2 keys for confirm / cancel   |
| <b>Power supply</b>     | Vectron PS80, 24 Vdc / 1,25A  |
| <b>Port</b>             | per RS232 to serial port  |
| <b>Cable</b>            | Y-cable, fixed mounting (data- and power cable), length je 2 m each               |
| <b>Protection class</b> | IP44  |
| <b>Dimensions</b>       | (LxWxH) 17.5x10.5x5.7 cm  |
| <b>Transponder</b>      | Tag-It HF-I plus, 13,56MHz  |
| <b>ISO</b>              | 15693-2, 15693-3 und 18000-3  |
| <b>Weight</b>           | approx. 400g (incl. cable)  |
| <b>Certified</b>        | CE  |
| <b>Compatibility</b>    | To all stationary 64Bit Vectron systems and hybrid systems (MobileXL, future XXL) |
| <b>Packaging</b>        | Shockproof packaging  |
| <b>Miscellaneous</b>    | Stainless steel holder for RFID-cards   |
|                         | Antiskip naps   |
|                         | Buzzer  |

### 5.4.2. Software

|                                    |                                   |
|------------------------------------|-----------------------------------|
| <b>Technical data and features</b> | Communication with VPOS via RS232 |
|                                    | Display control via VPOS          |
|                                    | Card initialization               |
|                                    | Open guest check with RFID card   |
|                                    | Operator sign-in and -out         |
|                                    | Voucher- and discount options     |

## 6. Putting into operation

This chapter informs you on the first start of the Vectron Transponder reader-/writer T10.



### Note

Vectron T10 is used in combination with a stationary Vectron POS system. Your Vectron dealer basically made all necessary preparations so that you have your Vectron T10 immediately available. Please ask him to assist you with the first starting.

Make sure you received your system as per order.

Proceed as follows to connect and operate Vectron Vectron T10:

1. Put the RJ45 plug of the Vectron T10 in a free serial port at the bottom of the POS system or the base station of the hybrid system. Make sure to use the port that is entered as port for the Vectron T10 in the programming of the POS system. If necessary ask your Vectron dealer.
2. Connect the socket of the line for external power supply with the plug of the PS80.
3. Connect the external power supply to the mains.
4. Switch on your POS system.

## 7. Vectron T10 functions

This chapter gives an overview on the functions of Vectron Transponder reader-/writer T10 and an introduction into the basic operations. Normally your Vectron dealer has programmed the system according to your demands.



### Attention!

Some operations at your systems may differ completely from those described in this chapter. In this case please ask your local Vectron dealer who will explain the functions that were especially programmed for you.

Vectron POS Software controls the evaluation of card data, all key input and the display.

If the Vectron T10 is connected to the mains but not yet connected to the POS system or if the latter is still switched off, the display shows „Waiting...“.

As soon as Vectron T10 is connected properly and the POS system is switched on the following statuses are possible. It is of no importance whether you first switch on the Vectron T10 or the POS system.

| No activity                |                               |
|----------------------------|-------------------------------|
| <b>Display</b>             | „Terminal ready, put on card“ |
| <b>Background lighting</b> | off                           |
| <b>Buzzer</b>              | off                           |
| <b>LED (red/green)</b>     | off                           |
| <b>LED (blue)</b>          | blinks slowly                 |
| <b>Result</b>              | none                          |
| <b>Proceed with</b>        | „no activity“                 |

| Card is put on             |  |
|----------------------------|--|
| <b>Display</b>             | „In process..“   |
| <b>Background lighting</b> | on   |
| <b>Buzzer</b>              | off  |
| <b>LED (red/green)</b>     | green LED is blinking  |
| <b>LED (blue)</b>          | on   |
| <b>Result</b>              | a) card read successfully<br>b) card not read successfully     |
| <b>Proceed with</b>        | a) „card read successfully“<br>b) „card not read successfully“ |



**Note**

If a card is not read successfully this usually happens because it was taken off the transponder too quickly.

| Card read successfully     |  |
|----------------------------|--|
| <b>Display</b>             | „Remove card“  |
| <b>Background lighting</b> | on   |
| <b>Buzzer</b>              | short signal   |
| <b>LED (red/green)</b>     | green LED permanently on until card is taken off the transponder           |
| <b>LED (blau)</b>          | on   |
| <b>Result</b>              | a) card remains on the transponder<br>b) card is taken off the transponder |
| <b>Proceed with</b>        | a) „card read successfully“<br>b) „no activity“                            |

| Card not read successfully |                 |
|----------------------------|-----------------|
| <b>Display</b>             | „Error“         |
| <b>Background lighting</b> | on              |
| <b>Buzzer</b>              | one long signal |

## VECTRON T10

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| <b>Card not read successfully</b> |  |
|-----------------------------------|--|
| <b>LED (red/green)</b>            | red LED on   |
| <b>LED (blue)</b>                 | on   |
| <b>Result</b>                     | a) card remains on the transponder<br>b) card is taken off the transponder |
| <b>Proceed with</b>               | a) „card not read successfully“<br>b) „no activity“                        |

| <b>T10 loses connection to POS system</b> |  |
|---|--|
| <b>Display</b>                            | after 5 seconds „T10 offline“                        |
| <b>Background lighting</b>                | off  |
| <b>Buzzer</b>                             | off  |
| <b>LED (red/green)</b>                    | red LED is on  |
| <b>LED (blue)</b>                         | not active   |
| <b>Result</b>                             | none   |
| <b>Proceed with</b>                       | „T10 and VPOS switched on, but no serial connection“ |

If the serial connection between Vectron T10 and POS system is interrupted, the POS system shows an error message of the external device.

If the serial connection between Vectron T10 and POS system is re-established, you first have to confirm the error message in the POS system, before the serial connection is recognized and the Vectron T10 is ready again for operation.



## 8. Service and maintenance

Except for cleaning the housing the user is not allowed to maintain or repair the components of the Vectron Transponder reader-/writer T10. Please leave all maintenance and repair to your Vectron dealer.



### **Danger!**

Unauthorized manipulations at the power supply PS80 may be extremely dangerous and lead to a loss of guarantee and liability claims.

To clean the housing please use a dry, fluff-free cloth. In case of strong contamination you can wipe the housing carefully with a damp cloth that is soaked with a mild cleaner.



### **Danger of destruction!**

Do not use chemical cleansers or cleansers containing solvents or benzene!

## 9. EU-Declaration of conformity

Manufacturer                      Vectron Systems AG  
 Willy-Brandt-Weg 41  
 D-48155 Münster

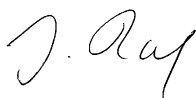
Device type                        External Transponder reader-/writer  
 Type designation                **Vectron T10**

The manufacturer declares that the above designated product consistent with directive 2001/95/EC complies with the fundamental standards on electrical and electronic products as stipulated in the directives of the European Council. The below mentioned standards that were harmonised under the relevant directives were applied:

| Directive            | Standards   |
|----------------------|---|
| 2014/53/EG<br>(RTTE) | EN 55022 Kl. B:2010, EN301489-1,<br>V.1.9.2 EN 55024:2010, EN301489-3,<br>V. 1.6.1<br>EN 61000-3-3:2014<br>EN 61000-3-3:2013<br>EN 60950-1:2006+A11:2009+A12:20<br>11+A1:2010+A2:2013<br>EN 62479:2010<br>EN 300 330-2 V1.6.1 |
| 2011/65/EU (RoHS)    | EN 50581:2012   |

This declaration is made in authority for the manufacturer resident in the European Union.

Münster, 2016-10-20



Jens Reckendorf  
 Member of the Board



Thomas Stümmler  
 Member of the Board