



POS Modular

User manual

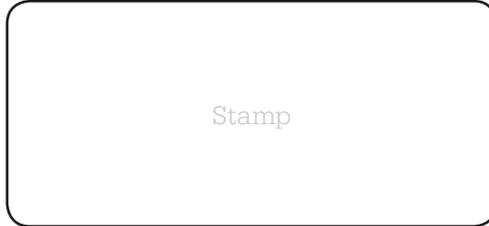


Vectron POS Modular



3

Your Vectron dealer



Stamp

Date: 15.12.2007

© 2005 - 2007 by Vectron Systems AG

Subject to error and modification

Manufacturer

Vectron Systems AG

Willy-Brandt-Weg 41

D-48155 Münster

www.vectron.de

Vectron

Leading in POS Technology



Contents

1	Introduction.....	9
2	Elektromagnetic compatibility.....	10
3	Notes on safety.....	11
4	Instructions for use	12
5	Disposal.....	13
6	Vectron POS Modular	15
6.1	Shipment.....	15
6.2	The POS system and its components.....	16
6.3	Licenses.....	17
6.4	Hardware features.....	18
6.4.1	Ports.....	18
6.4.2	Pin assignments.....	20
6.5	Technical data.....	24
7	Starting	27
7.1	Connection of monitor.....	27
7.2	System start.....	28
8	LED-Signals.....	31
9	Operation.....	33
9.1	Sign in and -out at the POS system.....	33
9.1.1	Sign in with key.....	33
9.1.2	Sign in without key.....	34
9.1.3	Sign out.....	34
9.2	Guest checks and hold buffers.....	34
9.2.1	Starting a new GC.....	34
9.2.2	Close and re-open a GC.....	35
9.2.3	Paying a guest check.....	35
9.2.4	Guest check split.....	35
9.2.5	Guest check move.....	36
9.2.6	Shift change.....	36
9.2.7	Hold buffers.....	36



9.3	Reports.....	37
9.4	Input and output.....	39
9.4.1	Input of amounts.....	39
9.4.2	Screen windows.....	39
9.5	Making a sale.....	40
9.5.1	Input of PLUs.....	40
9.5.2	Free price input.....	40
9.5.3	Payment.....	40
9.6	Void and merchandise return.....	41
9.6.1	Void LE.....	41
9.6.2	Void.....	41
9.6.3	Merchandise return.....	42
9.7	Change invoice format.....	42
9.8	Programming the POS system.....	42
9.9	Final remark.....	43
10	Service and Maintenance	45
10.1	Cleaning the housing.....	45
10.2	Screen saver.....	46
11	Accessories.....	47
11.1	Peripherals.....	47
11.1.1	Monitors Vectron D151T, D153T and D80T.....	47
11.1.2	External operator locks.....	48
11.2	System accessories.....	50
11.2.1	Internal operator locks.....	50
11.2.2	SRAM-memory expansion.....	51
11.3	Other accessories.....	51
12	Other Vectron products.....	53
12.1	Stationary Vectron POS systems.....	53
12.2	Vectron POS MobilePro.....	53
12.3	Vectron POS PC.....	55
12.4	Vectron Commander.....	55



13	EU declaration of conformity	57
14	UL certification	58
Supplement		59
	Important notes for the connection of scales	59
	Piktographs	60
	Glossary	62
	Document revision.....	66



I Introduction

We very much appreciate your purchase of the Vectron POS Modular. You have decided in favor of a high-quality product, which will support you in your daily work.

This system distinguishes itself by numerous connection possibilities, which make the Vectron POS Modular suitable for nearly every field of application.

The special design allows the Vectron POS Modular to be used as single station system as well as as server in ECR networks.

Please see the supplement for the notes on connection of scales.

In chapter 6 you get an overview of the hardware features of the POS Modular and their handling.

Chapter 7 of this manual describes how to start the POS system and the monitor.

In chapter 9 you are informed on how to operate the Vectron POS Modular.

The following chapters contain additional information, e.g. on service and maintenance of the system and on optional accessories.

At the end of the manual you will find a glossary of terms.

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

**Note**

This manual does not contain information concerning the extensive programming of the Vectron POS Modular. This requires detailed specialist knowledge and therefore lies in the responsibility of your trained Vectron dealer.

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

Vectron Systems AG

2 Elektromagnetic compatibility

- This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.
 - The electromagnetic emissions of the device is below the standardized limit values for interferences. However we cannot guarantee a complete protection against disturbance of radio and TV reception, if the device is applied in business- and living areas in a distance of less than 33 ft from the receiving aerial.
 - Installation and maintenance should be carried out by EMC-skilled personnel.
-



3 Notes on safety

When operating your Vectron POS system please follow these instructions:

- Only by means of proper positioning 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 POS system is to be carried out only by trained personnel, certified by the manufacturer.
- The Vectron POS system 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 installation and maintenance and improper operation of the Vectron POS system.



4 Instructions for use

Please follow these instructions:

- Only operate the POS system with the dealer installed peripherals.
- Do not insert any foreign objects into any openings on the devices.
- The power supply Vectron PS10 must be plugged into a properly grounded outlet.
- The POS system may not be exposed to direct sunlight. Ensure there is sufficient airflow around the device to allow for adequate cooling.
- Protect the POS system from dust and humidity.
- Protect the POS system from improper voltages.
- Clean only with a damp cloth using a mild cleanser.
- Before opening the housing of the Vectron POS system, unplug it from the outlet.
- Keep the packaging material for dispatch purposes.

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

5 Disposal

The manufacturer assumes a unilateral obligation to take back waste electric and electronic equipment that has been used for commercial purposes, consistent with Art. 9 of European Union Directive 2002/96/EC, last changed by European Union Directive 2003/108/EC. It applies:

- The manufacturer takes back waste electric and electronic equipment that was produced by or on behalf of the company and guarantees a proper recycling of this equipment.
- The legal obligation applies for devices, that will be put on the market after August 13, 2005. In addition, the manufacturer extends this obligation to all devices that have been put on the market as of January 1, 2004.
- Please hand over any waste electric or electronic equipment and any accessories or peripherals that you do not require or that cannot be used anymore to your Vectron dealer. Or send it back to the manufacturer directly, prepaid and marked "Waste electric and electronic equipment".





6 Vectron POS Modular

The Vectron POS Modular is an extendable POS system with high performance and numerous options for application. Its 64-Bit-technology and the battery-buffered RAM accelerate data access, guarantee fast data processing and avoid data loss in case of power failure.

Thanks to the wide range of peripherals the POS Modular easily adapts to any environment and always remains state-of-the art.

In combination with an optional monitor, the POS Modular becomes an elegant, single station POS system.

POS Modular uses the proven Vectron POS software. It is therefore compatible with other Vectron POS systems and suitable for application in an ECR network.

Modular
US

6.1 Shipment

Standard delivery of the Vectron POS Modular comprises:

- Vectron POS Modular, equipment as per order
- External power supply Vectron PS10
- National mains plug
- Operator lock as per order
- User manual
- Dispatch box
- Software license as per order

**Note**

The Vectron POS Modular is available with different equipment. 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.

6.2 The POS system and its components

The Vectron POS Modular distinguishes itself by the following components:

- High-quality, stable metal housing
 - Base plate and lid consist of black, sandblasted aluminium
 - The side walls consist of silver, brushed aluminium
- Please note:** Due to the shielding of the metal housing you cannot use the internal „EasyReader3“ operator lock.
- The LEDs integrated in the housing serve for optical perception of network operation or warnings.
 - Standard graphic card for connection of monitor, standard resolution 800 x 600 pixels (SVGA), higher resolution (1024 x 768 pixels, XGA) via extension license.
 - Operable via external keyboard or touch screen (only with respective license and hardware)
 - Numerous ports at the bottom (see chapter 6.4.1)
-



Fig. 1: Vectron POS Modular with „Addimat“ operator lock

6.3 Licenses

The basic license does not release all interfaces and functions. It enables the following ports:

- One VGA-port
- Six serial ports
- One parallel port
- Two USB-ports
- One PS/2-port
- Network port
- Two ports for cash drawers

Furthermore, the basic license is restricted to a graphical resolution of 800 x 600 pixels (SVGA) and does not allow a touch screen operation of the POS system. Only one operator lock (internal or external) can be used.

With extensions licenses you can increase the resolution up to 1024 x 768 pixels (XGA), operate the POS Modular per touch screen and - depending on the hardware - use up to two external operator locks.

Please contact you Vectron dealer in case you require extended licenses.



6.4 Hardware features

In the following you will get some technical information on the hardware applied in the Vectron POS Modular.

6.4.1 Ports

At the bottom of the POS Modular there are numerous ports for the connection of external devices to the POS system (see fig 3).

- Up to two ports (3,5 mm jack plug) for external operator locks (depending on the hardware equipment).
- Six serial ports (RS232) for the connection of e.g. touch screens, customer displays, scanners, magnetic card readers, printers, operator locks, modems etc.

Via one of these ports you can connect the POS Modular with a PC, to carry out a software update of the POS system for instance. You can also read out and process reports.

- Two USB-ports for updates and data backup on USB-sticks.
 - One PS/2-port for connection of PC-keyboard and mouse (single or parallel per adapter).
 - One network port (10/100MBit) to establish a comprehensive network with up to 200 Vectron POS systems.
 - Two ports for cash drawers. By means of an adapter you can connect and access up to four cash drawers (two per port).
 - One parallel port for connection of e.g. a DIN-A4-printer.
 - One port to supply the Vectron POS Modular via external power supply Vectron PS10.
-

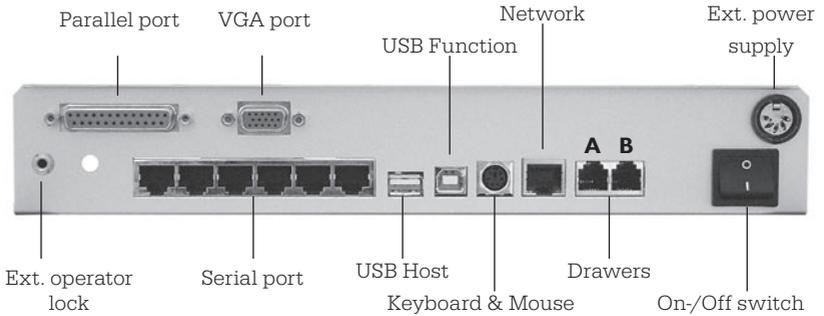
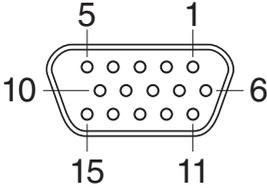


Fig. 2: Ports of the Vectron POS Modular

Except for the ports for external operator locks and VGA all ports are mounted directly on the main board (on-board) of the Vectron POS Modular.

6.4.2 Pin assignments

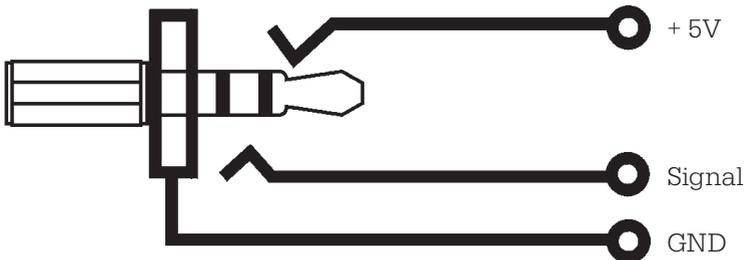
VGA-port (HD 15, f)



PIN	Assignment
1	RED
2	GREEN
3	BLUE
4	n/c
5	GND
6	RED_RTN
7	GREEN_RTN
8	BLUE_RTN
9	n/c
10	GND
11	n/c
12	SDA
13	HSYNC
14	VSYNC
15	SCL

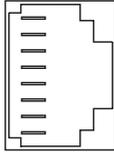
Ports for ext. operator locks

(3,5 mm jack plug, three pin, f)



Serial ports (RJ-45)

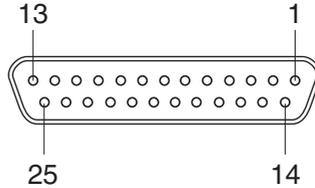
8
.
.
.
1



PIN	Assignment
1	DSR (in)
2	RxD (in)
3	+ 5 V (max. 500 mA)
4	TxD (out)
5	n/c
6	DTR (out)
7	+ 24 V (max. 100 mA)*
8	GND

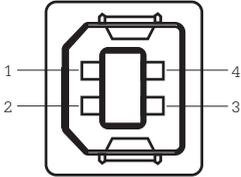
*) This tension must be manually enabled per Jumper.
Please contact your Vectron Systems dealer.

Parallel printer port (Sub-D 25, f)

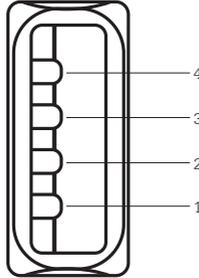


PIN	Assignment	PIN	Assignment
1	/Strobe	14	Auto Feed
2	Data0	15	Error
3	Data1	16	/ Init
4	Data2	17	Select In
5	Data3	18	GND
6	Data4	19	GND
7	Data5	20	GND
8	Data6	21	GND
9	Data7	22	GND
10	/Acknlg	23	GND
11	/Busy	24	GND
12	PE	25	GND
13	Select		

USB-ports



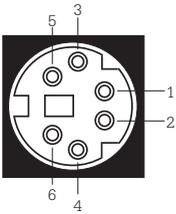
USB Function



USB Host

PIN	Assignment
1	VBUS
2	D-
3	D+
4	GND

PS/2-port (PC-keyboard and mouse)

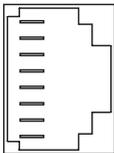


PIN	Assignment
1	KeyData
2	MouseData
3	GND
4	+ 5V
5	KeyClock
6	MouseClock

10/100BaseT Network port (RJ-45)

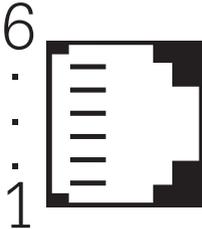
8

1



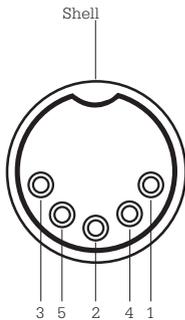
PIN	Assignment
1	TD+
2	TD-
3	RD+
4	n/c
5	n/c
6	RD-
7	n/c
8	n/c

Drawer ports (RJ-11)



PIN	Assignment A	Assignment B
1	GND	GND
2	Drawer 1	Drawer 2
3	Open Sensor	Open Sensor
4	+ 24 V	+ 24 V
5	Drawer 3	Drawer 4
6	+ 24 V	+ 24 V

External power supply (DIN-socket)



PIN	Assignment
1	GND
2	GND
3	+ 5 V / 4 A
4	GND
5	+ 24 V / 0,6 A
Shell	Frame GND



Attention!

For the power supply of the Vectron POS Modular please use exclusively the supplied Vectron PS10.

Using a different power supply can damage or destroy the POS system.



6.5 Technical data

Software

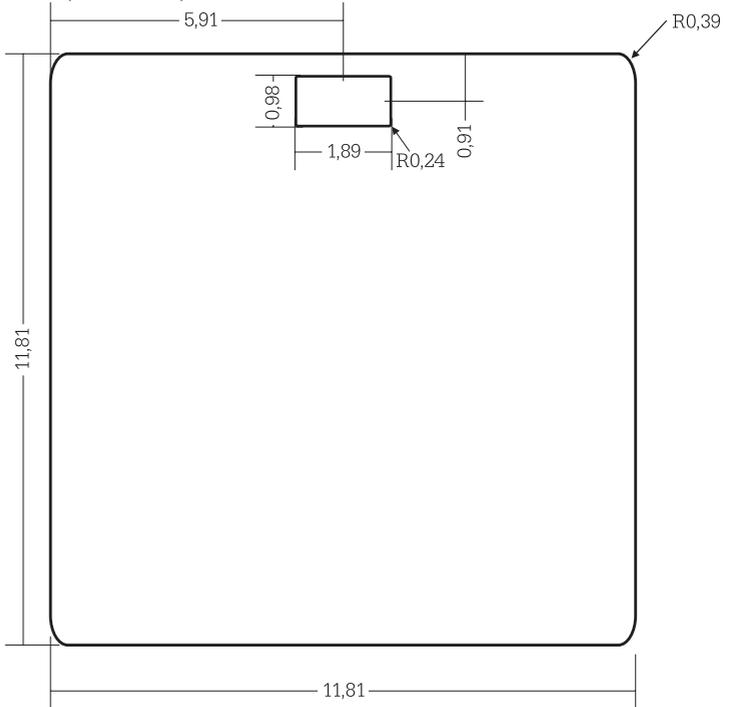
- 100,000 PLUs*
- 65,535 departments*
- 1,000 operators*
- 65,535 guest checks or customers*
- 200 cash registers per network*
- 100 printers per network*

*) The indicated values are maximum values, which can only be reached with special programming and optimum hardware equipment. Please contact your Vectron dealer to assist you with your special requirements.

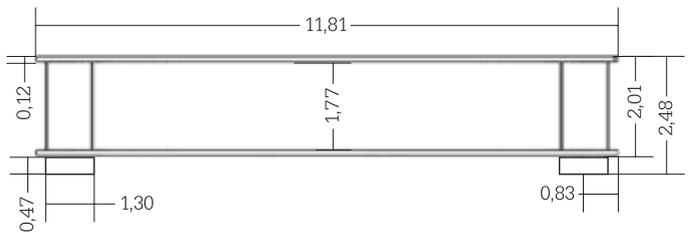
Hardware

- Metal housing, brushed and sandblasted aluminium
 - VGA-port for external monitor with 800 x 600 pixels (SVGA) and 256 colours, expandable to 1024 x 768 pixels (XGA)
 - Standard operator lock ‚Dallas iButton‘, also in magnetic design, optionally with ‚Addimat‘ lock
 - Optional touch screen operation
 - 10/100BaseT Ethernet port for network operation
 - Six serial ports for printers, scanners, card terminals, customer displays, dispensing systems etc.
 - One parallel port
 - Two USB ports (Host & Function)
 - Two ports for up to four cash drawers (per adapter) with ‚Open Sensor‘
 - One PS/2 port for PC-keyboard and PC-mouse
 - 2 MB RAM (battery-buffered), extendable to 4, 6 or 10 MB
 - 8 MB FlashROM for system software
 - Optionally two ports for ext. operator locks ‚Addimat‘ or ‚Dallas iButton‘ Magnet
 - 0 ... 40°C operation temperature
 - -10 ... +50°C storage temperature
-

Dimensions (in inches)



Modular
US



Weight: approx. 2480 g resp. 5,47 lb

7 Starting

Place the Vectron POS Modular on a stable and even surface. The set-up area must guarantee that the cash register is protected from bad influences such as high or low temperatures, high air humidity or splash. Please refer to the technical data for all relevant data concerning the set-up area.

**Attention!**

Please use exclusively the delivered Vectron PS10 for the power supply of the Vectron POS Modular.

Using other power supplies may damage or destroy the POS system.

7.1 Connection of monitor

For Vectron POS Modular various monitors are available, which are suitable for different purposes depending on size and resolution.

For notes on connection please see the installation instructions that are enclosed to the monitor.



7.2 System start

1. Connect the monitor to the power supply network and switch it on.
2. Connect the PS10 of the POS Modular to the power supply network.

The monitor is now illuminated and the POS system carries out a self test, during which various values are displayed, e.g. hardware version, software version, serial number and available memory.

```
Loading ...  
  
Starting drivers ...  
  
Checking system integrity ... /  
  
Hardware version :  
6.8.1.1  
  
Software version :  
4.1.0.0  
  
S/W serial no. :  
123456  
  
Memory tot/free :  
12502002 / 0213247  
  
Memory partition :  
1 / 1
```

A large graphic on the right side of the screen shows the 'VECTRON' logo at the top, followed by a large '64' with horizontal lines through it, and the word 'BIT' below it.

You then see the registration surface and the POS Modular is ready for operation.



Modular
US



Your registration surface may differ completely from the picture above. This depends on the programming of the POS Modular. Please contact your Vectron dealer.

Your Vectron POS Modular is now ready for operation.

8 LED-Signals

At the front blind of the Vectron POS Modular you see the type tag and five diodes (LED). The latter show different operating- and error modes.

„Power“-LED (green)

The „Power“-LED indicates whether the POS Modular is supplied with operating voltage.

LED on..... POS system has operating voltage and is switched on.

LED off POS system has no operating voltage or is switched off.

„Warning“-LED (yellow)

The „Warning“-LED shows error messages of the POS Modular, which do not impede the operation.

LED blinks error message

LED off no error message

„Network“-LED (green)

The „Network“-LED indicates if and how the POS Modular is active in the ECR network.

LED on..... POS system is logged on to the ECR network, but no network traffic.

LED blinks POS system is configured for ECR network, but communication is not established (network connector unplugged, cable is cut etc.).

LED blinks quickly POS system is logged on to the ECR network and sends or receives data.

LED off: POS system is not configured for ECR network.



„Error“-LED (red)

The „Error“-LED indicates a severe malfunction of the POS Modular. In this case you should seek the advice trained service staff.

LED blinks severe malfunction

LED off no malfunction

„Printer“-LED (green)

The „Printer“-LED alone or in combination with other LEDs indicates whether the POS Modular prints or whether printer errors occurred.

LED blinks quickly POS system is printing

LED blinks alone Printer error, e.g. printer not switched on. Print data is stored in the POS Modular until the printer starts working again.

LED and yellow LED blink Print error in the POS Modular

LED off: POS system is not printing

9 Operation

This chapter gives an overview on the functions of your Vectron POS Modular and an introduction into the basic operating procedures. Your Vectron dealer has programmed your POS system to meet your requirements. Some of your operating procedures may therefore differ from those described in this manual. Please ask your Vectron dealer who will be glad to explain the functions installed for you.

**Note**

The buttons on the touch screen display their functions mainly by small pictographs, so-called icons. The icons contained in the Vectron POS software and their meaning are explained in the supplement.

9.1 Sign in and -out at the POS system

Modular
US

Before you can make any entries the operator has to sign in at the POS system. This allows you to trace at any moment which operator is responsible for which entries. Different operators can get different authorizations, e.g. void.

There are different ways to sign in and -out at the Vectron POS Modular.

9.1.1 Sign in with key

You sign in to the Vectron POS system by holding the key to the lock. If an additional secret number has been programmed, enter this number and confirm with <Enter>.



9.1.2 Sign in without key

Sign in without key is possible in case you have been assigned a operator number and the sign in by key is not compulsory. Enter this operator number and press the <Operator> key or . If required, enter your secret number and confirm with <Enter>.

9.1.3 Sign out

For sign out there are also various possibilities:

- by removal of the key
- by holding the key to the lock again
- by closing the receipt
- by pressing the <Operator> key or .

9.2 Guest checks and hold buffers

Guest checks and hold buffers serve to store several invoices simultaneously. This function is often required in restaurants, to store the goods consumed for each guest check.

In retail, it can also be useful to store several invoices simultaneously, if for instance in a bakery there is only one cash register for several operators. In a supermarket, if a customer forgot his wallet in his car, the entire sale can be stored temporarily in a “hold-buffer” so that other customers can be serviced until the customer returns with his wallet.

9.2.1 Starting a new GC

To open a new guest check, enter the number and depress the <GC> key or .

9.2.2 Close and re-open a GC

By pressing the <GC> key or  the guest check is closed. Depending on the programming, the order is now printed on different printers, e.g. at the counter or in the kitchen. The POS system is now open for other orders.

If you want to open the GC again, e.g. to enter additional orders, you only have to open the GC again (see again).

9.2.3 Paying a guest check

To finalize a GC, open it again (see above). The balance is displayed. If you now press <Cash> or  or any other media key, the invoice is printed and all PLUs are deleted from the GC. Before pressing the <Cash> key or  you can enter the amount you got from the customer and the change is displayed.

Depending on the programming of your POS system, there are several other possibilities. For instance you can first print a subtotal invoice and then print the total invoice after the guest decided on the mode of payment.

9.2.4 Guest check split

It may often be necessary to split the guest check, if for instance one guest wants to leave earlier than the others. For these cases you have the function "G.C. Split". This function is only available for operators who have been vested with the according authorization.

To split a G.C., it must be opened again. If necessary close the GC and open it again. Press the <GC split> key or . Select the PLUs to be split via the direct PLU keys or via PLU numbers. Having selected all PLUs close with <Cash> or  or another media key. The invoice is printed.

It may also happen that a guest changes the table. You can then split PLUs from one GC to another.



Proceed as described above but before pressing the key <GC split> or  enter the number of the GC to which the PLUs are to be transferred. Close with <GC> key or .

9.2.5 Guest check move

Rather than splitting single PLUs from one check to another, "Check Move" allows the entire check to be moved to another guest check. The operators must be vested with the according authorization. Proceed as follows:

1. Open the G.C. to be moved. If the G.C. has already been opened, close it with <G.C.> or  and open it again via GC no. and <GC> key or . G.C. moves can only be carried out if the G.C. is opened anew.
2. Enter the target guest check number and close with <GC move> key or . The guest check that has been moved is automatically closed.

9.2.6 Shift change

Shift change means that a guest check is transferred to another operator (e.g. change of shift). Open the guest check that is to be transferred. Enter the number of the operator to whom the guest check is to be transferred and press <Shift change> or .

9.2.7 Hold buffers

To open a hold buffer press the respective key. By means of the hold buffer keys you can switch between the individual hold buffers. To close a hold buffer press a media key.

Depending on the programming of the POS system a hold buffer is automatically assigned to a certain operator. In this case the hold buffer change is automatically carried out if a new operator signs in.

9.3 Reports

The Vectron POS System offers numerous possibilities to combine the bookings of a certain period or operator in a report. You can select all reports via the <Mode> key or <M> or via special keys and print them afterwards.

It is also possible to read reports by means of the PC program Vectron Commander and to process them on the computer.



Note

It depends on the programming and on the operators' authorization which reports can be called. Please contact your Vectron dealer.

When pressing the <Mode> or <M> key you can select between „X-reports“ and „Z-reports“.

„X-Reports“ are interim reports, the memory is not deleted. All data is kept for further reading and processing.

„Z-Reports“ are final reports, the memory is reset to zero and the report cannot be restored!

After choosing either an X-report or a Z-report, you may decide which report is to be printed. The following are short descriptions of some of the most common reports:

Cashiers

An overview of the financial data for each cashier.

Cashier (single)

An overview of the financial data for only one cashier.



Cashier invoices

Shows the invoices that were created by each cashier in the reporting period.

- An **X-report** creates a subtotal invoice with the guest check still open for service
- A **Z-report** creates a final invoice and closes the guest check

Open GCs

Lists all guest checks that have not yet been paid.

Invoices

Shows the invoices that were created in the reporting period.

- An **X-report** creates a subtotal invoice with the guest check still open for service
- A **Z-report** creates a final invoice and closes the guest check

Hourly report

Indicates the turnover per hour.

Transactions

Gives an overview of the financial data, including turnover, taxes and cash in drawer totals.

Departments, PLUs, Main groups

Classifies the financial data according to departments, PLUs or main groups.

Journal

Records all actions carried out on the POS system (programming and financial data) since the last Z-report.

In case of transactions, cashiers, cashiers (single), departments, PLUs, main groups and hourly report you can choose between different report levels. For instance there may be a level for daily reports and another level for weekly reports. At the end of a day you can print Z-reports of level 1, at the end of a week you can print those of level 2. For some reports you may also select an evaluation range and print the report only for selected PLUs.



Due to the amount of data, the printing of invoices, operator reports and journals may take quite some time.

9.4 Input and output

9.4.1 Input of amounts

Amounts are generally entered into the POS system with two decimals. The dot can also be omitted. For ten Dollars enter "1000" or "10.00", for 3.95 Dollars "395" or "3.95".

9.4.2 Screen windows

Depending on the programming different windows are available on the screen. The most important will be explained here. By means of the key <go to window> you can switch between the individual windows or select new ones.

Modular
US

Overview on open GCs / open hold buffers

Displays all those GCs and hold buffers which have been opened by the currently signed-in operator. It also shows the total sales for each GC or hold buffer.

Receipt window

Displays the current receipt or invoice.

Info window

Displays the last entry or information on current actions such as "Void" or "GC split".

Input window

Here you enter amounts or PLU numbers.

GC window

Displays all PLUs of the currently opened GC that have not yet been paid.



9.5 Making a sale

The usual procedure for a Vectron POS Modular is as follows:

- PLUs or prices are entered
- The sale is invoiced and passed to the customer
- The customer pays

The details of each of these steps are explained in the following. An operator must be signed-in (see above).

9.5.1 Input of PLUs

There are different ways to enter PLUs:

- Enter the PLU number, followed by the <PLU> key or ^{PLU}
- Press the direct PLU-key (e.g. <Small Coke>)
- Scan the bar code of the PLU

9.5.2 Free price input

When you enter a PLU (see above), it will sell for its preset price. You may also enter a different price, e.g. for goods with small faults that you want to sell cheaper.

Free price input can be locked at your POS system or only be possible for selected operators.

To carry out free price input, enter a price and select the corresponding PLU or department. Before selecting PLU or department you may have to press the <Price> button.

9.5.3 Payment

The GC is closed after all PLUs have been entered and the customer wants to pay. The signed-in cashier can press the <Subtotal> key or  to see the subtotal. The sum is displayed and can be told

to the customer. Enter the amount you get from the customer and press <Cash> or . The change is displayed and the receipt is printed. If the customer pays the exact amount you can directly depress <Cash> or  without entering an amount.

If the customer does not pay cash, press the respective media key, e.g. <EC> or <Visa> instead of <Cash> or .

9.6 Void and merchandise return

Void and merchandise return are similar functions.

Void serves to cancel entries.

Merchandise return is a negative account where goods are taken back and money is paid out or deducted from the open balance.

Void and merchandise return can only be carried out by operators who have been vested with the corresponding authorization.

9.6.1 Void LE

Pressing the <Void LE> key or  deletes the last entered PLU.

9.6.2 Void

If you want to delete another PLU, press the <Void> key or  and select the PLU to be deleted via direct PLU key or PLU number (see above). If you want to delete additional PLUs, press the <Void> or  key again.



9.6.3 Merchandise return

When working in a guest check, it is only possible to return those PLUs that have previously been sold on this guest check. When working in a cash sale, you may return any PLUs.

To carry out a merchandise return press the <Merchandise Return> key. The further procedure is identical with "Void".

9.7 Change invoice format

Your dealer has adapted the invoice format according to your requests. It may sometimes be necessary to change the format, e.g. to print a receipt for entertainment expenses. In this case press the <Change invoice format> key before closing the invoice.

9.8 Programming the POS system

Inappropriate changes of the VPOS programming may lead to unwanted erratic behaviour during operation. In order to avoid this, the whole programming area should only be accessible for authorized service staff. Vectron POS systems are programmable so that safety keys, safety passwords and unambiguous access restrictions can be assigned for each individual operator.

Please ask your Vectron dealer which safety precautions are useful and necessary for you.



9.9 Final remark

We hope that we were able to give you some helpful information about your Vectron POS system. Due to the numerous programming possibilities, the description had to be quite general and the information restricted to the main functions. Your Vectron dealer will gladly answer any of your questions.

Please visit our Internet site (www.vectron.de). Here you get additional information and you can send us your questions by e-mail if necessary.

10 Service and Maintenance

The Vectron POS Modular does not contain any components that can be serviced or repaired by the user. Please leave all maintenance and service to your Vectron dealer.

**Danger!**

Do not carry out any maintenance or service on your own. Only authorized service staff may open the housing.

Unauthorized manipulations at the power supply Vectron PS10 may be extremely dangerous and lead to a loss of guarantee and liability claims.

10.1 Cleaning the housing

To clean the housing of your Vectron POS Modular please use a dry, fluff-free cloth. You can also use a vacuum cleaner with a small nozzle.

In case of strong contamination you can wipe the cabinet carefully with a damp cloth that is soaked with a mild cleaner.

**Attention!**

- Disconnect the POS system from the power supply before cleaning!
- Do not use chemical cleansers or cleansers containing solvents or benzene!



10.2 Screen saver

You can connect high-quality LCD screens with background lighting to the Vectron POS Modular. The tubes of the background lighting have a service life of approx. 30.000 hours.

This service life is considerably reduced by a frequent switch on and off. An activated screen saver starts the switch on and off, therefore the interval for the activation of the screen saver should not be too short.

Yet, if the interval is very long, the displayed elements could burn in the LCD screen. This means that you can hardly recognize the elements and operate them in case of touch screens.

To avoid these problems we recommend to activate the screen saver after approximately 30 minutes.

Please ask your Vectron dealer to check the interval of the screen saver and adjust it to 30 minutes if necessary.



II Accessories

The application of high-quality components allows you to perfectly adapt the Vectron POS Modular to the various requirements.

On the following pages we will present you required peripherals and other accessories for POS Modular.

You can purchase all of these accessories from your Vectron dealer. He will be glad to assist you with connection and configuration of POS system and peripherals.

II.1 Peripherals

For the Vectron POS Modular the following peripherals are available:

- Monitors Vectron D151T, D153T and D80T
- External operator locks

II.1.1 Monitors Vectron D151T, D153T and D80T

You can order the monitors under the following article numbers:

Vectron D151T	30131512,
Vectron D153T.....	30131514,
Vectron D80T.....	30130801.

11.1.2 External operator locks

You can connect external operator locks type Addimat and Dallas iButton Magnet to the Vectron POS Modular with the respective expansion license. This is only useful if the POS Modular is not positioned within reach of the point of sale but e.g. is mounted below the counter. In this case you could hardly use an internal operator lock.

External operator locks serve the same purpose as internal locks, thanks to a two-metre-long cable you can easily position them, e.g. at the monitor.

Order no. for external operator lock Dallas iButton Magnet: 20050101



Fig. 3: External operator lock Dallas iButton Magnet

Order no. for external operator lock Addimat: 20050102



Fig. 4: External operator lock Addimat

11.2 System accessories

The following system accessories for the extension of the Vectron POS Modular are available:

- Internal operator locks
- SRAM-memory expansion

11.2.1 Internal operator locks

You can combine the Vectron POS Modular with different internal operator locks:

Lock	Figure	Key	Attributes
Dallas iButton Standard		 52 x 20 x 8 mm, 5 g	<ul style="list-style-type: none"> • Easy handling • Key available with memory • Various colours available
Dallas iButton Magnet		 54 x 21 x 8 mm, 9 g	<ul style="list-style-type: none"> • Easy handling • Magnetic • Key available with memory • Cashier sign out by key removal • Various colours available
Addimat		 56 x 10 mm, 6 g	<ul style="list-style-type: none"> • Robust and long-lived • Magnetic • Cashier sign out by key removal

i
Note

Due to the shielding of the housing of the Vectron POS Modular you cannot use the internal „EasyReader3“ lock.



For further information concerning the operator locks and their application please contact your Vectron dealer.

11.2.2 SRAM-memory expansion

Standard equipment of the Vectron POS Modular is a two megabyte data memory. For memory expansion there are three modules available: two, four and eight megabyte.

The data memory stores all customer-specific data. With the expansion you can process considerably more data.

Please ask your Vectron dealer if you want to know whether a memory expansion is useful for you.

11.3 Other accessories

We already described the numerous ports of the Vectron POS Modular (see chapter 6.4.1). They allow to connect a large number of peripherals, among them customer displays, printers, magnetic card readers, scanners, operator locks, modems etc.

Please contact your Vectron dealer if you want to connect peripherals to your POS Modular. He will provide you with detailed information and will assist you with installation and configuration.



12 Other Vectron products

We would like to inform you about other Vectron products, which perfectly complete the Vectron POS Modular.

12.1 Stationary Vectron POS systems

Complete stationary POS systems are the Vectron POS ColorTouch, POS Mini and POS Vario. They have integrated colour displays and keyboards (exception: POS ColorTouch, which is operated via touch screen). They are therefore particularly suitable when used as single station. They are based on the same fast and reliable 64-Bit hardware as the POS Modular. The two stationary product lines complete each other perfectly when installing a local Client/Server system.

12.2 Vectron POS MobilePro

The Vectron POS MobilePro is the mobile model of Vectron POS systems. It is also based on 64-Bit hardware and also uses the proven Vectron POS software. This makes stationary and mobile Vectron POS systems completely compatible.



The chart below shows the most important features of stationary and mobile systems.

	Vectron POS System				
	Modular	ColorTouch	Mini	Vario	MobilePro
Colour display	●	●	●	●	●
Touch screen	●	●	●	●	●
Int. customer displ.	○	●	●	●	○
64-Bit Processor	●	●	●	●	●
SRAM, extendable	2 MB, ●	2 MB, ●	2 MB, ●	2 MB, ●	4 MB, ●
DRAM	64 MB	64 MB	64 MB	64 MB	64 MB
FlashROM	8 MB	8 MB	8 MB	8 MB	8 MB
Network	Ethernet LAN	Ethernet LAN	Ethernet LAN	Ethernet LAN	WLAN
Ports					
• serial	6	6	6 ●	6	○
• parallel	1	1	1 ●	1	○
• USB	2	2	2	2	○
• Cash drawers	2	2	2	2	○
• PS/2	1	1	1	1	○
• Bluetooth	○	○	○	○	●
Transponder	○	○	○	○	●
Int. card reader	○	○	○	○	●
Powermanagement	○	○	○	○	●
Operator lock	●	●	●	●	● ¹⁾

● = standard equipment, ● = optional, ○ = not available

¹⁾ To be realized via transponder reader

For further information on Vectron POS systems please refer to the Internet under www.vectron.de.



12.3 Vectron POS PC

Vectron POS PC brings the Vectron POS software to your PC. You only require a PC with Microsoft® Windows® operating system. The advantage of Vectron POS PC is that you can use the Vectron POS software simultaneously with E-Mail-, Office- and stock control programs. This allows data exchange within seconds.

For further information on Vectron POS PC please refer to the Internet under www.vectron.de.

12.4 Vectron Commander

The Vectron Commander is a communication- and evaluation software for PC with Microsoft® Windows® operating system. Being connected to the Vectron POS system, the Vectron Commander can poll and evaluate the ECR data. At any time you can get an overview on sales-, order- or working hours data.

For further information on Vectron Commander please refer to the Internet under www.vectron.de.



13 EU declaration of conformity

Manufacturer Vectron Systems AG
Willy-Brandt-Weg 41
48155 Muenster / Germany

Device type Electronic cash register
Type designation..... **Vectron POS Modular**

The manufacturer declares that the above designated product complies with the fundamental standards of guideline 89 / 336 / EEC and 73 / 23 / EEC resp. 93 / 68 / EEC when used as directed.

Applied standards:

- EN 55022, A1, A2 (1998)
- EN 55024, A1, A2 (1998)
- EN 61000-3-2 (2000)
- EN 61000-3-3, A1 (1995)
- EN 61010-1

Muenster, May 22nd, 2006

Jens Reckendorf
Member of the Board

Thomas Stümmler
Member of the Board



I4 UL certification

Vectron POS Modular is UL-certified according to the following indications:

Certificate Number: 080806 - E249920
Report Reference: E249920, August 3rd, 2006
Issue Date: 2006 August 8

Applied standards for safety:

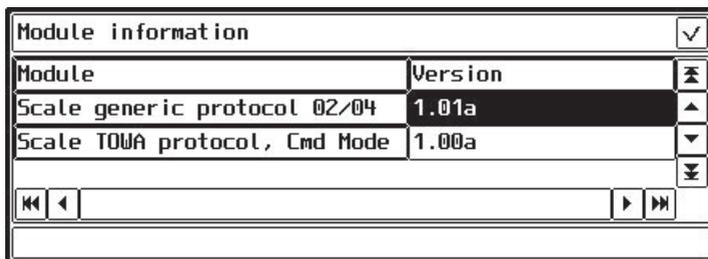
- UL 60950-1 Information Technology Equipment Safety - Part 1: General Requirements
- CSA C22.2 No. 60950-1 Information Technology Equipment

Supplement

Important notes for the connection of scales

1. When connecting scales you have to heed the respective national regulations. Within the EU it applies: You require a test certificate for the respective combination of Vectron POS System, software and scales. The conditions mentioned therein must be fulfilled.
2. **Check of certified software**
Proceed as follows to check that Vectron POS Modular runs the correct software:
 - a) Switch off the POS system.
 - b) Touch the screen and keep it touched.
 - c) Switch on the POS system.
 - d) Touch the screen until „Starting drivers ...“ and then „Calibration is cleared in n seconds“ is displayed.
 - e) Touch the „Module inform.“ button.

„Scale generic protocol 02/04 Version 1.01a“ must be displayed (see below).



Module information	
Module	Version
Scale generic protocol 02/04	1.01a
Scale TOWA protocol, Cmd Mode	1.00a



Piktographs

The Vectron POS Modular has installed a set of icons, which can be used in registration mode. The chart below lists the available icons.

Icons and their meaning

Icon	Meaning	Icon	Meaning
	Clear		Seat number
ESC	Escape	PLU	PLU
	Take away		Invoice
	Cancel receipt		Load invoice
	Receipt copy		Recall invoice
	Guest count		Invoice copy
	Inhouse		Seat split
	No invoice		Void
	Operator		Void last entry
MNG	Manager function only		GC
	Open GC/Operator		GC 0

Icon	Meaning	Icon	Meaning
	GC split		Side dishes
	Shift change		Beer
	GC move		Icecream
	Table map		Fish
	Enter GC text		Meat
	X-report		Drinks
	Z-report		Main courses
	Temp. invoice		Dessert
	Subtotal		Pizza
	Cash		Spirits
	Cold drinks		Starters
	Hot drinks		Wine

Modular
US

The software of the POS Modular can also use self-created or edited icons of a second icon set. You can either display these icons on buttons or link them to a PLU.

These icons must be edited and brought to a defined format. Please ask your local dealer if you want to create and use your own icons.



Glossary

- Background lighting**.....Serves to make visible the content of LCD-screens even under bad light conditions.
- Bar code**.....Information is coded by means of a certain sequence and width of bars. Mainly used for packaging, contains specific product information, e.g. on content, price etc. The scan code is read with a special scanner.
- CE**With the CE-mark a manufacturer confirms that his products were produced in conformity with EU standards and regulations. The abbreviation CE stands for **C**ommunauté **E**uropéenne.
- Client/Server-System**.....Network structure with hierarchical distribution of tasks. The server provides data, services and resources, which the work stations (clients) use.
- Display**Screen
- DRAM**.....In a dynamic RAM (DRAM) the electric charge must be refreshed with a refresh pulse to keep the data in the memory cells.
- Ethernet**.....Standardized network protocol, used for connecting computers and networks per coaxial cable.
- FlashROM**Special memory type for system- and application software. Can do without current source or requires only a button cell.



- I**cons.....Icons are small pictographs, which on GUIs symbolize a function (file, program etc.). A touch or click on the icon calls the function
- L**CD.....**L**iquid **C**rystal **D**isplay. A layer of liquid chrystals is given in between two foils. When a voltage passes through these chrystals, they change the angle of optical refraction
- L**ED.....**L**ight **E**mitting **D**iodes = semiconductor emitting light when power is fed
- N**etworkGroup of computers that are connected via different lines and share common resources like data and peripherals
- O**perator lock.....For sign in and out of operators
- P**eripherals.....External devices that are connected to a computer system.
- P**ixelSmallest element of a digital image with defined coordinates for location and colour.
- P**ort.....Physical or logical connection within a system or between several systems for exchange of information.
- P**OS.....**P**oint **o**f **s**ale
- P**owermanagement.....Setting to switch on and off components depending on the requirements in order to save energy. For the Vectron POS MobilePro e.g. screen, processor, background lighting, Wireless LAN and Bluetooth.
- P**S/2.....PC-System developed by IBM with independent ports, which are also used on other platforms.



RAM	R andom A ccess M emory = working memory
ROM	R ead O nly M emory = You can only read this memory and it keeps the data even if it is not supplied with power.
Scanner	Device for reading and forwarding bar codes. The scanner is connected to a computer or POS system.
Screen saver	Serves for protection of screens. After an adjustable period of system inactivity, the display either permanently changes or the screen is switched off. The screen saver is stopped as soon you touch an input device.
Server	Central POS system in an ECR network, which provides the client ECRs with data, memory and resources. The server administers the ECR network.
Software	Heading for every type of computer programs.
SRAM	Static RAM. A permanent quiescent current preserves the stored information. In switch off mode, this quiescent current is maintained by a battery that is mounted on the main board.
Terminal	Monitor for data display, connected to the central computer; data processing and -storage is made via the central computer. We distinguish: <ul style="list-style-type: none"> • Dumb terminals, which only have screen and keyboard but not an own data processor. Data processing is made by the central computer • Intelligent terminals correspond more or less to a complete computer



- TFT **T**hin **F**ilm **T**ransistor. Display technique which offers a higher contrast and a better image than customary flat screens.
- TouchScreen Pressure-sensitive screen with input function
- Transponder Device for wireless communication. Serves for contactless reading of incoming data and can write on the data carrier.

- U**pside Software-update
- USB **U**niversal **S**erial **B**us. Serial connection between computers and peripherals.

- V**GA **V**ideo **G**raphics **A**rray. A graphics display system, which defines certain combinations of resolution and colours.

- W**LAN **W**ireless **L**ocal **A**rea **N**etwork. Designation for wireless network according to standard IEEE 802.11.



Document revision

Date	Modifications
29.12.2005	First creation and publication.
08.02.2006	Chapter 8 corrected.
22.05.2006	Monitor Vectron D80T added, Chapter 7 extended, Chapter 8 extended, Chapter 14 added, Chapter „Important notes for the connection of scales“ added (see supplement).
12.07.2006	Text concerning VGA cards corrected.
12.09.2006	Ext. operator lock EasyReader3 added, Chapter 15 added.
13.10.2006	Ext. operator lock EasyReader3 removed.
20.11.2006	Second edition.
07.08.2007	Replacement of Vectron D150T monitor by Vectron D151T.
15.12.2007	Third edition, Information about monitors removed.
