ELECTRONIC CASH REGISTER WITH FISCAL MEMORY

TREMOL M23

USER MANUAL

CONTENTS:

GENERAL INSTRUCTIONS

The present manual is intended to introduce the cash register user with its functions, as well as the safety measures. The manual contains all the information about programming, selling and reporting with the device.

USED ABBREVIATIONS

ECR   - Electronic Cash Register with fiscal memory
FM   - Fiscal Memory
EJ   - Electronic Journal

SAFETY MEASURES. ENVIRONMENT CONTROL
Safety Measures

ⓘ   Do not install the ECR close to sources of running water and do not splash it with water or other liquids.

ⓘ   Do not install the ECR on unstable surfaces to avoid overturning it.

ⓘ   Do not install the ECR close to sources of heat.

ⓘ   Do not install the ECR on vibrating surfaces or vibration conducting surfaces.

ⓘ   The power supply of the ECR should have a voltage of 230 V and frequency of 50 Hz. Always turn off the power supply to ECR using the main switch before plugging or unplugging it to the mains.

ⓘ   Plug the ECR only in electrical plugs complying with the standards. If the plug is noncompliant with the requirements contact a qualified electrician.

ⓘ   All extension cords used should comply to the same standard. Do not plug any electric motors, heaters or other devices into the same extension cord.

ⓘ   Do not use defective powers supply cables and do not let the power supply cable be pressed or stamped on.

ⓘ   Do not insert metal objects into ECR to avoid electrical shocks.

ⓘ   Unplug ECR prior to cleaning it and do not use aggressive detergents.

ⓘ   Do not attempt to repair ECR yourselves. In case of a problem contact the authorized repair service.

ⓘ   Turn off the ECR and contact the authorized repair service in the following cases:

ⓘ   If the supply cable of the ECR is damaged;

ⓘ   If any liquid was spilt over the ECR;

ⓘ   If there is a mechanical damage of the ECR;

ⓘ   If the ECR does not function properly.

Attention! The cash register is sealed according to OG 28/99. Violating these seals by unauthorized persons is punishable under the laws in force.

Environment control

• The icon on the right – struck out litter bin – means that this product must not be dumped together with the household trash. To protect the nature environment and human health, please separate this product from the other waste and recycle it.

INTRODUCTION TO ECR

The desktop cash register **TREMOL M23** are fiscal devices, intended to register the sales in different type of commercial sites. ECR have ergonomic keyboard and built in displays for cashier and customers.

The built in printer provides issuing of clear and readable notes for each operation (sale, report, receiving or paying office money etc.)

ECR operates with Electronic Journal on SD card allowing storage of copies of a large number of documents and printed later if necessary

General view. Composite parts.

Description:
1. Keyboard;
2. Printer cover;
3. Client's display;
4. Cashier's display;
5. Main Power Jack, Drawer, USB, RS232 interfaces;

Keyboard. General view and description of the keys
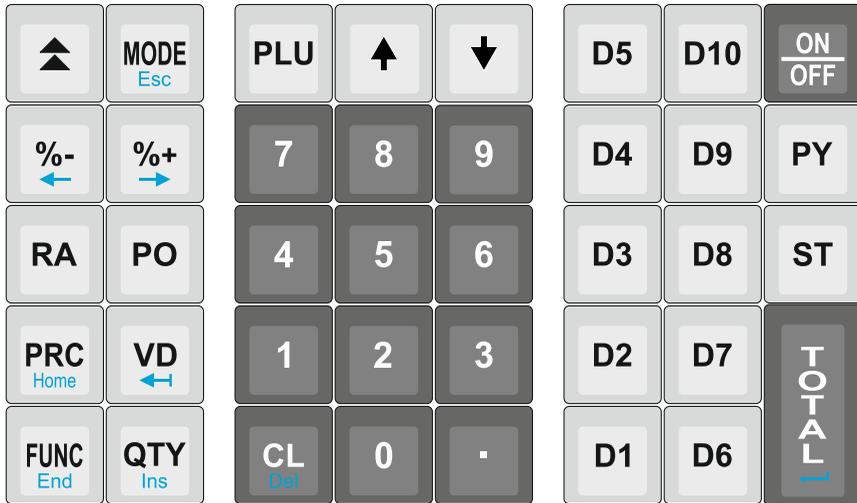
The ECR Keyboard is composed by 33 keys, separated in several groups:

Numeric Keys: from [1] to [9] including [0] and [·] - for entering digital information;

Sale Keys: from [D1] to [D10] and [PLU] for articles;

Functional keys: all other keys. Functional description bellow.

Display

ECR is equipped with 2 symbol displays for cashier and customer, allowing to practice visual control over ECR operation.

Printer

Hi-speed, Low-Noise, Easy Load Line Thermal printer with resolution 8 dots per mm and speed up to 75 mm/sec.

RAM

An integral part of the ECR providing storage for the accumulation of sales registers, programmed parameters and other temporary information.

Fiscal Memory

All transactions are stored in a fiscal memory. All data stored in the fiscal memory cannot be destroyed or changed.

The "fiscal memory"(FM) block is separate module. The manufacturer seals the fiscal memory to ensure the security of unauthorized access.

Electronic Journal

Electronic Journal is non-volatile memory, designed for storing copies of all fiscal receipts issued from the ECR. The EJ memory buffer is realized with SD Memory card with

memory 8 GB. When the free lines in the EJ buffer are less than 500 free lines, the opened receipts is closed automatically and ECR allows printing only of daily report and Fiscal Memory report.

ECR allows reading of the EJ through the PC port by external request.

FUNCTIONAL SPECIFICATIONS

ECR functional registers:

VAT Classes	**5**
FM Records	Total **2000** for Z-daily reports and special events
Cashiers	Total **20** with programmable name (20 characters) and password (up to 6 digits)
Pay types	Total **5** **1** main CASH (national currency) **3** additional (without exchange rate) **1** currency (with programmable rate towards the main pay type)
Departments	**20** with programmable: name (30 characters) **1** (DEP.00) without programming option
Article	**Up to 65000** with programmable: name (34 characters), measure unit, price, price type parameter, VAT Class, Department attachment, quantity in stock, parameter for quantity watch, HSCode, HSDesc, single sale and barcode number.
Customers	**300** with programmable: VAT Class, name, headquarter, address, city

INTERFACE SPECIFICATIONS

Electronic scale operation

ECR has possibility to receive quantity from electronic scale. The scale is connected to the ECR with interface cable. The ECR has 4 set communication protocols for different scale types. There is option to add 4 more protocols through the interface. The communication protocol is set in Programming mode, sub mode -LINE-.

External display operation

Instead of a scale on an external display can be connected on the same interface. The communication protocol is set in Programming mode, sub mode -LINE-.

Barcode scanner operation

ECR operates with barcode scanner RS232 /USB type, allowing fast sales of articles with barcode label in one of the standards: EAN13, EAN8, UPC-A, UPC-E. The ECR recognizes automatically the barcode type.

Personal Computer communication

ECR communicates with PC in two main communication modes:

Programming and reporting communication mode is handy when the ECR operates independent, but is necessary to summarize and store the sale data.

Fiscal printer **communication mode for registering sales under PC control.**

In this mode the sales are initiated by the PC. ECR keeps its data processing, accumulated sums in non-volatile memory and stores turnover, VAT sums, counters and events in fiscal memory.

Drawer

ECR has possibility to control cash drawer. The drawer is opened each time a

receipt is closed and when making received on account or paid out operations with the key. The drawer opening can be forbidden with parameter ***Drawer***.

ECR POWER SUPPLY
Electricity mains supply

ECR is supplied by external adapter 9.6V/ 2.75A.

Supply by built-in accumulator batteries. Charging

ECR ***TREMOL M23*** has option to work with built-in batteries type Li-Ion 7.4V >2000mAh and must be mounted by service center. The accumulator charging is automatic when the ECR is plugged to the electricity mains. Full charge cycle is about 10 hours. With fully charged accumulators ECR prints at least 2000 notes with single sale each and can endure 12 hours in stand-by mode. To provide longest battery life follow these rules:
1.   Always charge the batteries to maximum level;
2.   Once plugged out, plug in again after few hours work;
3.   If the ECR is not used more than 30 days, remove the batteries. .

ECR CONSUMABLES AND THEIR REPLACEMENT

Depending on the ECR type two thermal paper rolls with following specifications: :

roll:	Ø 48mm 57mm
model:	***TREMOL M23***

Paper roll replacement (feeding)

ECR monitors the availability of receipt and journal tapes and when it runs out of

either of them its operation is suspended and the message   No PAPER   is displayed.

- Open the cover printer by lifting the lever.

- Remove the seals of the new tape. Place the tape with their heat-sensitive surface down.

- Pull the loose end outside the groove and close the printer cover with slight push.

- Press the CL key – the ECR resumes operation.

HOW TO USE THE PRESENT MANUAL

ECR operation manual provides numerous examples of its functions. The examples follow a certain order, which is:
ⓘ   *Text at the left of this symbol describes a concept, rule or function.*
Text beside this symbol describes what is necessary to do to accomplish a function.

Example: *Text on the side explains exactly what is shown in the example::*

Key sequence	*Display*

1 2 3 D1	Art.00001
	1 pcs x 123.00
	123.00
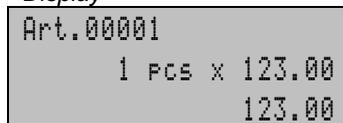
Text showing the entered data and ECR respond.

INSTALLATION AND PUTTING INTO OPERATION

ⓘ   *The installation of ECR is programming of obligatory receipt attributes, the tax group parameters as well as the desired number of article departments, operators, etc.*

ⓘ   *The initial setting into operation (fiscalization) is a procedure for activation of the fiscal memory of the ECR. It should be performed by a representative of the service provider stated in the ECR passport in the presence of the tax-liable person.*

ⓘ   *The installation of the ECR should be performed by an authorized specialist.*

TYPES OF DOCUMENTS ISSUED BY ECR

ⓘ   *All issued by the ECR documents have header containing data for the tax-liable person and the trade object and footer with advertising text, receipt number, date and time of the receipt, receipt type (fiscal or non-fiscal), and the ECR serial number. Until putting into operation all receipts issued by the ECR has caption "RECEIPT". The turnovers are stored only into operation memory of the device.*

ⓘ   *After putting into operation the sale receipts, daily fiscal reports and fiscal memory reports are with caption "FISCAL RECEIPT". The daily turnovers are stored in the fiscal memory. All other receipts have caption "SERVICE RECEIPT".*

ⓘ   *Except the information in receipts (bons), ECR prints and other service information in PROGRAMMING mode and in diagnostics. This information is not printed in the format shown above (no title and lines with ad text, serial numbers, etc.)*

ⓘ   *Caution!!! Only ECR with activated fiscal memory can be used to register fiscal sales.*

ACCESSING THE OPERATION MODES OF ECR

ⓘ   *The operation modes of the ECR are selected by pressing the* [MODE] *or* [↑] [↓]
keys and entering the password with the keyboard.
ⓘ   *The passwords can be changed in "Programming" operation mode. If password
for "Programming" mode is lost, please contact the service institution.*
Operation modes and their default passwords are:

Mode	Display information	Password
Date and Time	04 November 2019 Monday 15:30:18	
Sales registration mode	SALES _ _ _ _ _	[0] [⌀]
Report Z / Reports with zeroing	REPORT Z _ _ _ _ _	[1][1][1][1][1]
Report X / Reports without zeroing	REPORT X _ _ _ _ _	[2][2][2][2][2]
Programming mode	PROGRAM _ _ _ _ _	[3][3][3][3][3]
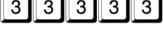
PROGRAMMING

DEFINITION OF PROGRAMMING. BASIC PRINCIPLES

ⓘ   *The programming of ECR is the process of setting-up the cash register by defining the parameter values corresponding to its point of sale and user requirements.*
    The programming is performed in "PROGRAM" operation mode.

Example: *enter PROGRAM MODE*

Key sequence   *ECR display readings*

| MODE | MODE | MODE | ↑ | ↓ |

```
SALES        ------
REPORT Z     -----
REPORT X     -----
PROGRAM      -----
```

Programming mode selection

```
   Program 0-9   .
0 Parameters
1 Settings
2 Paymens
3 VAT groups
```

| 3 | 3 | 3 | 3 | 3 |

The display reading shows that ECR is in programming mode and awaits sub-mode selection.

Programming modes

ⓘ   *The ECR is programmed in sub-modes, which are selected from scrolling menu using* ↑ ↓ *or by pressing the corresponding key:*

Key	**Name**	**Function**
0	*0 Parameters*	Programming the system parameters of ECR
1	*1 Settings*	Programming the general parameters of ECR and changing the access passwords
2	*2 Payments*	Programming the types of payment
3	*3 VAT groups*	Programming VAT rates values
4	*4 Departaments*	Programming the department parameters
5	*5 Articles*	Programming the article parameters
6	*6 Operators*	Programming the operator's parameters
7	*7 PC*	Programming and reporting communication mode
8	*8 TESTS*	ECR tests

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9	*9 Peripherals*	Communication parameters settings
D1	*D1 Customers*	Programming customer parameters
%-	*%- Set date/time*	Date and Time setting

Functional keys

In all programming sub-modes the key MODE *cancels the operation and returns the ECR in the previous menu. Use* ↓ ↑ *keys to select the function from scrolling menu.*

In sub modes for items: payments, VAT rates, departments, articles, operators keys %+ *and* %- *scrolls through the item in order. Using* ↓ ↑ *keys scrolls the item parameter.*

QTY *Prints Help and general ECR values.*
The other functional keys are defined for each mode.

Digital values programming

The input of digital values is done by 0 *to* 9 *and* · *and a functional key.*

Parameters programming

Parameters are set by selection the parameter from menu and pressing the TOTAL *key. To change the parameter, press the key again.*

Characters programming (names)

Names are entered in particular sub mode. To enter this mode press TOTAL *key. Characters can be entered by keyboard. Each number key types few letters by pressing the key repeatedly.*

Functional keys table in names programming mode

Move cursor one position to the left ←	%-
Move cursor one position to the right →	%+
Insert character **Insert**	QTY
Delete character **Delete**	CL
←	VD
Home	PRC
End	FUNC
Enter	TOTAL

Functional keys

[·]	Switch between small letters, capitals numbers icons: abc, Abc, ABC, 123
[D1]	. , / ? ! ' \ " # $ % & * = < > @ + - ( ) : [ ] \ _ ^ |

Table for key meanings

Taste	7	8	9	4	5	6	1	2	3	0
	A	D	G	J	M	P	T	W		
	B	E	H	K	N	Q	U	X		
	C	F	I	L	O	R	V	Y		
						S		Z		
	7	8	9	4	5	6	1	2	3	0

PROGRAMMING THE SYSTEM PARAMETERS OF ECR [MODE 0]

ⓘ *By the system parameters the ECR can be configured according the store characteristics and client demands. There is scrolling menu with choice of system parameters as shown in the bellow table:*

Parameter	Parameter description	Default value
Logo	**Print advertising logo at the top of the receipt**. The logo file must be bmp format with dimensions 384 x 80.	**Yes**
NO Void	**Forbid void**	**No**
NO +/-	**Forbid discounts/additions**	**No**
Reg.Sum	**Obligatory enter sum before proceeding with payment**	**No**
Currency	**Currency operation**	**No**
Duplicate	**Defines whether or not to print receipt copy**	**NO** Don't print
PLU menu	**Active PLU menu in Sale mode**	**No**
Print BC	**Print barcode at end of the receipt.** Defines whether print or not barcode containing information about № and date of print.	**NO** Don't print
Drawer	**Active drawer control**	**No**
Auto OFF	**Automatically logout** after receipt closure	**No**
BC/Nr. Art	**Forbid check sum control over barcode.** Allows using the barcode of the article as nomenclature number, without length and format restrictions	**No**
Scale	**Scale operation.** Allows getting quantity from connected scale using QTY key in sale mode **No – don't get quantity** **Yes – get quantity**	**No**
Display	**External Display connected to the RS232C interface**	**No**
FP mode	**On-Line (Fiscal Printer) connection in Sale mode**	**No**
Keyb. FP	**Keyboard is activated in On-Line (Fiscal printer) mode**	**Yes**
Raport DEP	**Department report attached to the daily report**	**No**
Report ART.	**Article report attached to the daily report**	**No**
Report Op.	**Operators report attached to the daily report**	**No**
Cl. Report	**Customer report attached to the daily report**	**No**
Fraction	**Operation with whole or fractional numbers.** **Caution!!! by changing this automatically are changed all programmed prices** (for example 10,00 is transformed to 1000 and vice versa). Waits for confirmation.	**YES** fractional numbers type 0,00
No free	**Forbid work with free entered prices for articles**	**NO** Allowed
Fiscal	**Service** parameter	**NO**
Detail rec.	**Format of sale** **Brief –** information about quantity and single price are merged on single line and if the quantity is 1 it isn't printed. **Detailed –** information for name, quantity, single price and sum are printed on separated lines each.	**NO** brief

GENERAL PARAMETERS

Key	*Parametrii generali*	**Parameter description**	**Default** value, range
0	*0 Header*	**Header/Footer line** submenu: Header No:1 …. Antet No:10- *Header lines from 1 to 10* Footer No:1 - *Footer line* Ext.display massage-*Greeting*	Line1: <u>COMPANY NAME</u> Line 2: <u>COMPANY ADDRESS</u> Line 3*<u>: *</u> * * * Line 4: * * Line 5, 6 ,7 and 8 – <u>empty</u>* Footer 1 to 3 - <u>empty</u>*
1	*1 ECR number*	ECR **POS number**	<u>0001</u> to 9999
2	*Print Density*	**Printer Density**	<u>1</u> to 3
3	*3 Display Contrast*	**Display settings** **Submenu:** **0 Operator contrast** **1 Client contrast**	03 to 10, <u>5</u>
4	*4 Logo*	**Logo number** selection	<u>0</u> or 1
5	*5 Timeout*	**Switch-off timeout**	<u>OFF</u>, 01,02,05,10 min
6	*6 Weight Barcode*	**Weight/QTY Barcode prefix**	<u>28</u>
7	*7 Oper. Barcode*	**Operator Barcode prefix**	<u>27</u>
%+	*Addition*	programmable **Addition**	<u>0.00</u> to 99,99
%-	*Discount*	programmable **Discount**	<u>0.00</u> to 99,99
PRC	*PRC Passwords*	Select the submenu for **passwords X/Z/P programming:** - 0 Reset Passwords - 1 Password Z - 2 Password X - 3 Password P	<u>11111/22222/33333</u>
D2	*Invoices range*	Enter menu **invoice number range** (the current invoice number is shown)	Two 10 digit numbers, starting 0000000001 to 9999999999 default <u>от 1 до 0</u> (no default range is set)
QTY	*Help*	Prints help and general ECR values: POS number; percentage addition; percentage discount; invoices range	

PROGRAMMING NAME OF PAYMENT AND EXCHANGE RATE [2]

ⓘ   *ECR may operate with five different types of payment with following characteristics:*

- **main CASH 0** – key 🔲 *(prints always **CASH**), at the display is shown the programmed name (default — national currency);*
- **additional 1, 2 and 3** *with programmable name and option to disable it;*
- **currency with programmable name and exchange rate to main payment and enabled only when system parameter** *CURRENCY = YES).*

Function keys:

Key	Name	Function / Value	Range value **default**
%+	**Payment 0, 1,2,3,4**	Scrolls to **lesser payment/greater number**	To payment number 3 and then currency
%-	**Payment 4,3,2,1,0**	Scrolls to **greater/lesser payment number**	To payment 0
0	*0 Name*	Enter **payment name** programming mode	10 characters max 0 – Cash 1 – Card 2 – Cheque 3 – Coupon USD
1	*1 Enabled*	**Enable / disable** present additional payment	N disabled or Y enabled
1	*1 Rate*	Set **rate when currency is selected**	Digit from 0.000 to 999.99999 Default 79.75118
2	*2 Change*	Set change parameter of additional payments. Several options available with pressing the key 🔲	0- with change calculation; 1- no change; 2- limited = due amount
3	*3 Select PY*		
QTY	*Help*	**Prints programmed parameters of the payment types**	

VAT RATES PROGRAMMING [3]

ⓘ   *ECR operates with five VAT Rates (A, B, C, D and E) with programmable rate values. When registering sale, the turnover is accumulated to one of the VAT Rate registers according to article or department VAT Rate Group attachment.*

Function keys:

Key	Function / Value	Value range <u>default</u>
%+	Scrolls to **lesser VAT Rate group**	Up to group E
%–	Scrolls to **greater VAT Rate group**	Up to A
TOTAL	**Set tax rate value** of selected VAT group	Digit 0.00% to 99.99 % A = 16.00% B = 18.00% C = 0.00% D = 0.00% E –0.00%
QTY	**Print tax rate**	

ⓘ   ***Caution!!!*** *Tax values are regulated by law. Change of these values are stored in the FM together with the next daily report. Programmed only if necessary!*

DEPARTMENT PROGRAMMING [4]

ⓘ   *Departments are used to separate the turnovers with common characteristics.*

Key	Name	Function	Value range <u>Default</u>
%+	**Departament 1,2,3…20**	Scrolls to **greater department number**	Up to number 20
%–	**Departament 20,19,18…**	Scrolls to **lesser department number**	Down to number 1
0	*Name*	Set/ show department name	20 characters max <u>Department XX</u>
QTY		**Prints information about the department**	

ARTICLE PROGRAMMING [5]

ⓘ   *Articles are used to register easy sales of items or service by PLU number or barcode with programmed or entered price. Using of articles allows stock watch, as well as their grouping in departments.*

Key	Name	Function	Value range <u>Default</u>
%+	*Articole1,2,3…10000*	Scrolls to **greater article number**	Up to number 65000
%–	*Articole 10000…1*	Scrolls to **lesser article number**	Down to number 1
PLU	*PLU Alege current 1,2,3…*	Set / Show selected **article number**	1 to 65000
0	*Name*	Set article name	Up to 34 characters including hyphen symbol

1	*Price*	Set/show selected article price	0.00 to 9999999.99
2	*HSCode*		
3	*HSDesc*		
4	*VAT group*	Set / Show selected **article VAT Group** characteristic	Number from 1 to 5, corresponding to A, B, C, D, E
5	*Measurement*	Set / Show measurement	1 pcs; 2.g; 3.kg; 4.t; 5.L; 6.m; 7.m^2; 8.m^3
6	*Single trans.*	Set / Show value of the parameter **single transaction** (automatically close the receipt in cash)	Value NO or YES
7	*Free PRC*	Set / Show value of parameter **type of price** to sell with	Forbid free price; Allow free price; Limited free price.
8	*QTY*	$\boxed{\text{TOTAL}}$ Set article quantity available	0.000 to 999999.99
		%+ Increase and show the available article quantity	0 to 999999.99
		%- Decrease and show the available article quantity	0 to the quantity set
9	*Department*	Set / Show the department number attached to the selected article	0 to 20 (For DEP.0 no secondary receipts are printed)
D1	*Track QTY*	Set / Show the value of parameter for **quantity control**	NO – no control YES+ Forbid sale with negative quantity YES- – Allow sale with negative quantity
D2	*Barcod*	Enter menu for programming barcode or nomenclature number of article;	8, 12 or 13 digits barcode: EAN8 EAN13, UPC-E or UPC-A;
D3	*Export/Import*	Enter menu for export/import or printing of database of articles of the external device	
D4	*PLU count*	Set article count	1-65000
QTY	**Prints information about the department –** parameter single sale is printed only if is YES		

 Programming article barcode by barcode scanner
Choose article. Read the article barcode on the label with the connected to ECR and setup barcode scanner. If the barcode is read correctly, a little sound signal is emitted and the barcode is printed. ECR doesn't allow identical barcodes for different article.

OPERATORS PROGRAMMING. [6]
ⓘ   *ECR allows operation with up to 20 operators. Default ECR works with 1 operator with password "0". If more operators are needed first must set their number, and then login names and passwords.*
Function keys:

Key	Display	Function	Value range default
0	*Name*	Set operators number by %⁺ Scrolls to greater operator number or %⁻ Scrolls to lesser operator number	Number from 1 to 20
1	*Password*	Enter operator password programming menu	Up to 6 digits (if the digits are less than 6, the entering is completed with ⌷) Default operator 1 password: 0 ⌷ CL Delete operator password
2	*Set oper. count*	Choosing the number of operator	
QTY		Prints set up operator names	

 Programming operator password by barcode scanner.
ⓘ   *Choose operator. Programming of barcode password is same as article barcode with prepared in advance barcodes for different operators. ECR doesn't allows same barcodes for different operators.*
ⓘ   *Login into sales mode is possible both with barcode passwords or manually.*
ⓘ   *The operator barcode is with 13 digits. Barcode reading of the digits is as follows:*
       2 digits – barcode prefix (programmed in general ECR parameters)
       3 digits – first three digits of the password in reverse order
       2 digits – division by 100 remainder of the product of before three digits
       3 digits – next first three digits of the password in reverse order
       2 digits – division by 100 remainder of the product of before three digits
       1 digit – barcode checksum

CONNECTION WITH PC IN PROGRAMMING AND REPORTING LINE MODE [7]

ⓘ   *ECR receives commands from PC interface. Display reading in this mode is:*

```
-- Line --
```
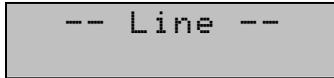
ECR SYSTEM TESTS.[8]

ⓘ   *In this mode is possible to check functionality of different ECR modules.*
ⓘ   *By pressing a key are started these system tests:*

Key	Test	Action, characteristics
ST	**Version**	test Version, C.S. & printing
1	**Diagnostics**	Diagnostic printing
2	**Fiscal memory**	test FM, printing of free reports and events
3	**EEPROM**	test operative memory
4	**Battery**	mesure of power supply voltage
5	**Display**	gradually fill the display and print keyboard version
6	**SD**	internal SD checking test
7	**RS232 - 1**	loopback connection
8	**RS232 - 2**	loopback connection
D1	**Drawer**	
D2	**GPRS**	
D3	**Wifi**	
.	**Keyboard**	EXIT: 4 times MODE

SET COMMUNICATION PARAMETERS [9]

Name	Function	Value range <u>default</u>
UART speed	*UART is for connection with PC. Values are selected with* ⬜ *. To set the baud rate just select the value and exit the menu.*	*Available baud rate values are: 9600, 19200, 38400, 57600, <u>115200</u>.*
Scale	*SCALE PROTOCOL* *The connection with scale can be done with different communication protocols . Maximal number of added protocols is 8. To scroll through protocols press* ⬜ *. To set the protocol just select it and exit the menu.*	<u>CAS</u>
ED	*Same as scale protocol set up*	<u>Par. CD7220/5220</u>
WiFi	*Select a wireless network that the ECR will remember and connect. Press* ⬜ *to print the available wireless networks. Select the network number from the list, enter the access password, and after successfully connecting to the selected network, the ECR will prints the network settings*	

PROGRAMMING CUSTOMERS DATA BASE [PROGRAM 0-9, D1]

ⓘ *In this mode is possible to program customers data.*

Key	Name	Function	Value range <u>default</u>
%+	**Customer 1,2,3,…300**	Scrolls to **greater customer number**	Up to number 300
%–	**Customer 300…1**	Scrolls to **lesser customer number**	Down to number 1
PLU		Set / Show selected **customer number**	1 to 300
0	**PIN**	Set/show selected customer PIN № characteristic	14 characters
1	**Name**	Set customer name	Up to 30 characters
2	**Headguarters**	Set customer headguarters	Up to 30 characters
3	**Address**	Set customer address	Up to 30 characters

4	**City/Postal**		Up to 30 characters
5	**Exemption #**		Up to 30 characters
6		**Print data for all customers**	
QTY	**Print all**	**Print data for selected customer**	

SET DATE AND TIME

ⓘ *Date and time can be set with date and time not earlier then the last document stored in EJ or last fiscal record in FM.*

ⓘ *To enter date later with more then one day from the present the ECR requires confirmation by enter it again.*

In the main "Programming" menu Program *press* %- *, enter date in format DD-MM-YY and confirm with* ⬚ *. After date set the time in format HH-MM and confirm with* ⬚ *. New date and time are printed.*

"SALES" mode

ⓘ   *Here are described the operation in STORE operation mode.*

SALES ACCESS. FUNCTIONAL KEYS

The sales mode is accessible by login password.

The password is 6 digits max. If the password is shorter press [A] *after entering the password.*

Functional keys

Key	Function key	Function key with leading number
[CL]	Clear error	
[ST]	1) Press once – Shows SUBTOTAL amount of sales	
	2) Next pressing Calculates and shows the SUBTOTAL alternatively in cash and in currency (Only when *Currency* = YES)	
[D1] to [D10]	Register sales from articles 1 to 10 with the programmed price	Register sales from articles 1 to 10 with the entered price
[FUNC] [D1] to [D10]	Register sales from articles 11 to 20 with the programmed price	Register sales from articles 11 to 20 with the entered price
[PRC]		Enter article price
[↓]	Manual barcode or nomenclature number enter menu confirm the code with the same key	
[↑]	Customer receipt opening menu /invoice,credit note,debit note/. Enter customer number and press [A]. By pressing the key [A] you enter the customer search menu. With [↑] or [↓] you can choose the selected customer and with [A] confirm it. To exit from the menu press [CL];	
[FUNC] [PLU]	Show articles list With [↓] or [↑] keys and with number [A] you can run through the items The programmed price of the selected item is displayed. With [A] you can sell the selected item. To exit from the menu press [CL];	
[QTY]	Get scale quantity for sale	Set quantity for sale
[VD]	immediate void	
[CL] [VD]	Annulment of preceding transaction. There is sub menu in which you can choose the transaction you to delete. Confirm with [A].	

%− %+	Register percent discount/addition with the programmed percentage over transaction or ST	Register percent discount/addition with entered percentage over transaction or ST
FUNC %− or %+		Register value discount / addition with entered value after sale
RA PO		Out of receipt make received on account (RA) and paid out operations (PO) with entered sum
FUNC %−	Out of receipt Visualize date and time. For exit from the menu press CL	
%−	After printed customer receipt make Duplicate.	
PY	Pay the entire amount due in the payment type you choose	Pay the entered amount in payment type selected
FUNC PY	2) Pay the whole due amount in Payment types 1 – 3. Select payment type	Paying the received sum in payment type 1-3. Select payment type.
TOTAL	1) Paying the whole amount due in CASH	Paying the entered amount in CASH, if the sum is greater than the amount due, ECR calculates change
	2) *Currency* =Y and displayed currency - Paying the whole amount due in currency	Paying the entered amount in currency, if the sum is greater than the amount due, ECR calculates change if the sum is greater than the amount due, ECR calculates change
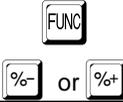
BASIC PRINCIPLES WHILE WORKING IN SALES MODE. RESTRICTIONS

ⓘ   *By registering a sale the ECR begins printing client fiscal receipt*

ⓘ   *To close the receipt must pay the whole amount in one or several pay types until the amount due is reached.*

ⓘ   *When payment is started only other payment and subtotal are allowed.*

ⓘ   *Percentage discount and additions can be made over last transaction and subtotal. In the second case the discount / addition is distributed over the sales.*

ⓘ   *Value discount and additions can be made over last transaction and subtotal. In the second case the discount / addition is distributed over the sales*

ⓘ   *Voids are possible only before payment has begin.*

ⓘ   *Immediate void corrects the last transaction – sale or discount / addition. Void can be done several time until all sales are cleared.*

ⓘ   *Voidation corrects any sale in the receipt .*

ⓘ   *When made voidation of sale with made discount / addition the sale is cleared together with the discount / addition.*

ⓘ   *When no sale receipt is started can make received on account or paid out operations.*

ⓘ   *Receipt copy can be printed only once after right the receipt closure.*

ⓘ   *Some operations can be restricted by right parameter.*

ARTICLE SALE USING BARCODE SCANNER

Scan the article barcode. The article must have programmed barcode and price. If the barcode matches with any article the sale is registered. Before scan is possible to set quantity and price.

ⓘ *ECR supports only barcodes compliant to EAN13, EAN8, UPC-A and UPC-E standards. If working with unique barcodes, they must be programmed (see 2.2).*

ⓘ *Weight barcode can be used a variant of EAN13. This type of barcode contains information about the number of the article in ECR and its quantity (up to 5 categories). It is not necessary to program this type of barcodes as article parameters. Only the first two digits need to be programmed, in the general parameters of ECR. (see 2.2).*

The ECR interprets the barcode digits as follows:

YY   NNNN   X   QQQQQ   X

weight barcode prefix
Article number
Quantity checksum
(Not checked by ECR)
Quantity max. 99,999 Kg.
Barcode checksum
(Checked by ECR, depending on P27)

SALES WITH QUANTITY USING ELECTRONIC SCALE

ECR is put in sales mode. Electronic scales is already switched on and in operation mode. The goods are put on the scales. When the weight of the goods is displayed in XX,XXX Kg

format, the key QTY *is pressed. If the communication between the ECR and the electronic scales is proper, the weighted quantity is displayed on the ECR. A long beep indicates no*

communication. Pressing QTY *key again starts a new attempt to get quantity information from the electronic scales. There follows a sale of a department (article) following the above described steps.*

CURRENCY OPERATION. SUM CALCULATION. PAYMENT. CHANGE TYPE

ⓘ *When Currency = YES, ECR changes its functionality in the following way: the receipt is printed also the total amount calculated in currency using the programmed exchange rate; calculation and displaying of subtotal in currency is possible; payment in currency.*

▤ *After calculating the subtotal by pressing again* ST *, the sum is displayed in currency and when the button is pressed again the sum is displayed back in cash.*

▤ *When currency amount is shown, press* ⌷ *to pay in currency.*

▤ *If before pressing the key a sum was entered and its greater then amount due a change is calculated in* currency.

ⓘ *When working with some values for rate and sums is possible to have some rounding mistakes.*

PRINT INVOICE RECEIPT

ⓘ   *ECR can print customer receipts /invoices/ credit note/ debit note /. The receipt has the following additional properties: daily invoice number; customer data field – the identification and VAT numbers of the customer are entered before receipt beginning.*

ⓘ   *To issue an invoice it is necessary to press the key* ⬆ *before the opening receipt. Input of a number of programmable database with customers and then*

       press 🔲 *. To issue an invoice for customer without programmed details have to*

       press 0 *and* 🔲 *.*

       Enter mode for customer details (symbols programming).

ⓘ   *Refusal of issuing an invoice is possible by pressing the key* [MODE] *, before marking the sales.*

ECR Reports

ⓘ   *The ECR reports contain information about all sales, money flow, stock movement. Depending on the chosen report, reading or reading with clearing of the reports is performed.*

RAPORT Z

To select one press the corresponding key.

Functional keys:

Key	Name	Function
🔲	*Daily report*	*Daily fiscal report (with register clearing and record in FM in "Report Z" operation mode);*
1	*FM by date*	*Brief or detailed report can be printed. The detailed report contains each daily record and summary information about the period. The brief report contains only records date and number in the period and summary sums. The journal numbers for the period are also included.* 1 *Brief report by tax groups – Short;* 2 *Detailed report by tax groups – detailed*
2	*FM by block*	*Brief or detailed report can be printed. The detailed report contains each daily record and summary information about the period. The brief report contains only records date and number between the blocks and summary sums. When the ECR is with EJ the journal numbers for the period are also included.* 1 *Brief report by block number – short;* 2 *Detailed report by block number– detailed;*
4	*Departaments rep.*	*This is report of turnovers and quantity sold in all 20 departments for the period of last zeroing to the present. Cleaning of the report begins automatically.*
5	*Articles report*	*Reports of turnovers and quantity sold of all articles in the ECR*
6	*Operators report*	*Reports of all amount due by the ECR operators. Cleaning is automatically.*
7	*Customers report*	*Contains the turnover and number of invoices issued to customers programmed into the cash register database and the turnover of the invoices issued to customers whose data were entered at the time of the sale. The report is automatically zeroed along with the daily Z report.*
D1	*EJ by date*	*EJ Report by dates (start and end date)*
D2	*EJ by Z number*	*EJ Report by numbers of Z Reports*
D3	*EJ by receipt*	*EJ Report by receipts*
D4	*Full EJ report*	*Full EJ Report (from beginning to now)*
PLU	*FM events report*	*This is report of events, stored in the FM.*
QTY		*Print help information for key sequence of different possible reports.*

RAPORT X

Functional keys:

Key	Name	Function
[TOTAL]	*Daily X report*	*Daily fiscal report*
[1]	*FM by date*	*Brief or detailed report can be printed. The detailed report contains each daily record and summary information about the period. The brief report contains only records date and number in the period and summary sums. The journal numbers for the period are also included.* [1] *Brief report by tax groups – Short;* [2] *Detailed report by tax groups – detailed*
[2]	*FM by block*	*Brief or detailed report can be printed. The detailed report contains each daily record and summary information about the period. The brief report contains only records date and number between the blocks and summary sums. When the ECR is with EJ the journal numbers for the period are also included.* [1] *Brief report by block number – short;* [2] *Detailed report by block number– detailed;*
[4]	*Departments rep.*	*This is report of turnovers and quantity sold in all 20 departments for the period of last zeroing to the present.*
[5]	*Articles report*	*These are reports of turnovers and quantity sold of all articles in the ECR.* *by pressing [5] a sub-mode with the following reports is opened:* [D1]*- attached to the department;* [QTY]*- quantity in stock;* [PY]*- programmed articles (these with programmed name, price or barcode);* [TOTAL]*- turnover by articles.*
[7]	*Customers report*	*This report contains the turnover and number of invoices issued to customers programmed into the cash register database and the turnover of the invoices issued to customers whose data were entered at the time of the sale.*
[D1]	*EJ by date*	*EJ Report by dates (start and end date)*
[D2]	*EJ by Z number*	*EJ Report by numbers of Z Reports*
[D3]	*EJ by receipt*	*EJ Report by receipts*
[D4]	*Full EJ report*	*Full EJ Report (from beginning to now)*
[PY]	*Payment report*	*This is report of amount accumulated in different payment types.Print the turnover report, distributed in different payment types.*

PLU	*FM events report*	*This is report of events, stored in the FM.*
VOID CANCEL	*Export data* *Export JSON* *Report EJ* *Report FM*	*Files export to external data storage. You can use Flash memory device connected to USB interface.* *After selection of submenu choose the period of data you need - by number of receipt (JE) or by number of Z-daily report (JSON,EJ,FM) or by date (JE, MF).* *When the transfer is over, the message* Gata! *is displayed.*
QTY		*Print help information for key sequence of different possible reports.*

- *The daily financial report with zeroing and record in FM, when the selected mode is "Report Z", in this case the clearing begins automatically.*

- *The information is for the period from the previous report with zeroing until now.*

- *By the help of Parameter* **Raport DEP** */Departments in Daily Report/ ,* **Raport ART** */Articles in Daily Report/ and Parameter* **Raport OP.** *is possible automatically to start reports of departments, articles and operators. In this case they are printed before the daily report and cleared without confirmation. The printing continues after power breaks also. Their self-starting in mode "Reports Z" is prohibited.*

Caution!!! Daily Fiscal Reports with zeroing and FM record must be made every day to summarize the daily turnovers. They are important documents and must be kept in the way stated in the law.

ⓘ   *Daily Fiscal Report is cleared without confirmation and the printing continues after power break also.*

ⓘ *Fiscal Memory contains daily records with information about accumulated turnovers in each VAT Group with record date and number. Besides daily records, FM contains information about following events: put into operation, VAT Class percent change, numbers format change, reset RAM, Electronic Journal reset.*

ⓘ *Fiscal memory reports can be made in each one of the "Report X" or "Report Z".*

ⓘ *Each started EJ Report can be stopped with pressing* CL *.*

ⓘ *EJ reports in not formed as receipt. It have a header but finish with row contains data and time.*

ERRORS AND RESTRICTIONS DURING ECR OPERATION

ⓘ   *During the operation of ECR are possible errors because of misuse, registers overflow or other restrictions.*

DISPLAYED MESSAGES

display message	situation	meaning	troubleshooting
FORBIDDEN	Department sale	no price or forbidden VAT Group	press CL initiate new operation
FORBIDDEN	Article sale	no price or forbidden VAT Group	press CL initiate new operation
FORBIDDEN	Enter free price	No free price P15=YES,	press CL initiate new operation
Not found	Sale with barcode	Barcode not recognized	press CL initiate new operation
-Quantity	Article sale	Not enough quantity of the article instock	In PROGRAMMING mode enter new quantity for the article or set operation mode without quantity monitoring
! Overflow !	Registering in "SALES"	The sum is greater then the maximum allowed	press CL initiate new operation
Buffer overflow	Registering in "SALES"	Maximal number of sales is reached	Pay and close the receipt
ERROR	Voidation	Try to void inexisting sale	Repeat the operation but describe the correct sale
ERROR	Void	All sales are voided	press CL initiate new operation
Enter sum!	Closing the receipt	ECR expects received sum to be entered	Close the receipt in desired payment type, but enter the received sum
-Sum	Paid out sums, change	Not enough in the Payment type	press CL initiate new operation
Invoice Range!	Try to start invoice	The invoice range is full	Set new invoice range in PROGRAMMING mode
!Report Z: ST!	Operating in "SALES"	EJ overflow	Print EJ in Report Z by pressing ST
!Report Z:- TTL!	Operating in "SALES"	Daily turnover overflow	Make Daily Z report. in Report Z press
!Report Z: 4 !	Operating in "SALES"	Department turnovers overflow	Make the report in Report Z by pressing 4
!Report Z: 5 !	Operating in "SALES"	Articles turnovers overflow	Make the report in Report Z by pressing 5
!Report Z: 6 !	Operating in "SALES"	Operators turnovers overflow	Make the report in Report Z by pressing 6

PRINTED ERROR AND RESTRICTION MESSAGES

Print message	Meaning	Troubleshooting
Power down	Power supply lost	ECR finished the operation
Fiscal Error Memory full	The fiscal memory is full and may be read only. No more sales can be registered with the ECR	Replace the fiscal memory according to the legislative regulations
RAM RESET!	Reset RAM	Set date and time; Program ECR parameters; Contact the service organization
Fiscal Error CRC Error	Wrong checksum of FM block	Contact the service organization

PROGRAMMING RESTRICTIONS

ⓘ *ECR will not allow the programming of some parameters until some reports are made. List of the parameters follow:*

Parameter	Necessary reports
currency	Daily Z, Operators Z
forbidden article free price	Article, Z
Header lines (1 - 3)	Daily Z
VAT Class percents	Daily Z
Payments	Daily Z, Operators Z
Name and VAT Group of Article (only those with accumulated turnovers)	Daily Z, Article Z
Article price (with turnover)	Daily Z; Article Z
Operators number	Operators report
Default parameters	All Z Reports

Notes: