Description of communication protocol for fiscal printers Delio E 3.1.019

Basic version 3.1.

1. Preliminary information.

The Fiscal printer is a device purposed for cooperation with a PC computer. Its action consists in executing commands sent from the computer through a serial port RS-232. The printer recognizes control codes and executes the recognized commands. In case of error the printer informs the operator by an appropriate message shown on the LCD (liquid crystal display) or sends the information on the error to the computer.

In the main loop of the sequence analysis there are being recognized four control codes (four one-byte command codes sent to fiscal printers) and commands preset (characters <ESC> P).

In case when only some versions of the printers recognize the described codes or control sequences, it has been marked in the concerned text.

We propose to download a test/ service program for the fiscal printers to these programmers who adapt their applications to cooperate with the fiscal printers manufactured by **NOVITUS SA.**

http://www.novitus.pl/pl/dla-programistow/drukarki-fiskalne/

This program is located in a group „Test and service programs of fiscal printers". Its current version (when the present document was written) is known as WIKING 8.3.1 X.

This program ten enables one to send to the printer all control sequences which are accepted by the printers. To do it, one shall – after the program has been started – make use of the option Tools – Printer control. After sending a command to the printer, the control sequence can be seen by selecting operation Programming – Control sequence.

These Programmers who create applications acting under the Windows may make use of the controller ActiveX, also presented in the above mentioned page. The file containing the controller and documentation in English is in the group „Communications protocols and drivers purposed for fiscal devices" under name OIC_FPLib.zip. The controller, apart from exercising control on the fiscal printers, has also a possibility to control additional, external alphanumerical display. It is executed without the need of inscription any code – data to the display are sent on the basis of control commands of the fiscal printer.

The main principle assumed while works on new versions of the fiscal printers is to provide full compatibility „downwards". The newer fiscal printers are compatible with their predecessors, and it is why they are fully handled by older versions of the protocol. Any potential departures from the rule of „downwards" compatibility can turn up as a result of implementing new fiscal regulations, which will not allow executing some of the hitherto existing commands.

1.1. Control codes.

ENQ ($05) – status dispatch demand (^E),

In response to status dispatch demand (**ENQ**) printer sends 1 byte of the following format:

7	6	5	4	3	2	1	0
0	1	1	0	FSK	CMD	PAR	TRF

where:

FSK   0: printer is in training mode,
1: printer is in fiscal mode,

CMD   1: the last command has been executed correctly (bit is deleted after receiving **ESC P**, if the command following **ESC P** is not a demand of sending back cash register information and is set after its correct execution),

PAR   1: printer is in transaction mode (after having completed the sequence start of transaction, before completing the sequence annulment of transaction , standard validation of transaction ,

TRF 1: the last transaction has been finalized correctly (bit set after correct execution of the sequence standard validation of transaction , validation of transaction with payment forms (1) or validation of transaction with payment forms (2), and deleted after correct execution start of transaction).

NOTE:

1. Bit TRF is stored in a non-volatile memory, thus even there occurs supply failure between the moment of completing the transaction and status testing, the value of this bit, tested by application will remain correct (moreover, the work program of the printer provides that regardless of supply failure the operation of receipt printing, updating the totalizers and TRF settings are UNSEPARABLE!).
2. We would like to draw your attention that in case of receipt annulment both bits remain in state 0.
3. Possible status responses (ENQ) are within the range $60..$6F (range of small letters), which in turns always enables one to identify them (small letters cannot appear in status response while automatic error handling).
4. Order of sending status is on the fiscal printer interpreted synchronously (if in the given moment the printer is during executing earlier demanded activity, or it has no paper or in incorrect situations, the answer can come late or at all. In that case one should use DLE status).

BEL ($07) – sound signal (^G),

CAN ($18) – interruption of command interpretation (^X).

DLE ($10) –status dispatch demand (^P)

Gives a possibility of status readout e.g. lack of paper or error situations.
In response to code DLE ($10) printer sends one-byte status in format:

7	6	5	4	3	2	1	0
0	1	1	1	0	ONL	PE	ERR

Where:

ONL 1: state „On-Line",
PE 1: state „Lack of Paper" or discharged battery (24V),
ERR 1: state „Mechanism/ controller error".

We would like to your attention that, this code gives messages from range: $70..$77, so other than the remaining status responses (response to ENQ included).

Attention:

1. Order of sending DLE status is on the printer interpreted asynchronously (in case of lack of paper or in incorrect situations).

1.2 Syntax of the control sequences.

Apart from control codes there are recognized format commands:

<ESC> P P1;...;Pn xxxx <text> cc <ESC>\

where characters <ESC> P ($1B $50) mean beginning of a new command. Then, one-1byte parameters from P1 to Pn are sent , only if the command requires them to be given. After the parameters is command ('xxxx') of length from 2 do 4 characters. Many commands require giving additional parameters, like product's name, price, value in form of sequences inscriptions (parameter <text>). These sequences are given after sending the command code and may any ASCII characters, control codes excluded. Format of a text sequence depends on particular command and may contain texts and numerical parameters. In case of texts the limiter is character **CR** ($0D), whereas in numerical values character '/' ($2F). Numerical parameters which define the amount may consist of max. 8 digits for the integral part and max. 2 digits for the fraction part, separated with a point (decimal point). The zero fractional part and meaningless zeros in the integral part can be neglected, so the figure instead of sending the sequence '00000013.00' it is enough to send '13' (sequences '0013', '13.00', '13.' will be also correct, nevertheless their sending consumes more time).

At the very end of majority of commands there is sent a check sum 'cc', expressed in form of two hexadecimal figures. The check sum is calculated in the following form:

1. < check sum > = 255;

2. for each character of a sequence following the characters <ESC> P we calculate:

< check sum > = < check sum > **xor** <code of sequence character>

3. The check sum obtained in this way we present in text form on two bytes ad append to the sequence together with characters <ESC> \.

Example:
The following sequence is used to increase cash state and print out non-fiscal pay-in receipt:
<ESC> P 0 # i PAY-IN / < check sum **> <ESC> **
Let's assume that we want to pay 100 PLN (zł) to the cash, thus the sequence will have the following form:
**ESC P 0 # i 100 / < check sum > ** it means in hexadecimal notation:
$1B $50 $30 $23 $45 $31 $30 $30 $2F < check sum > $1B $5C.
While calculating the check sum take part: the underlined figures and the initial value 255 ($FF):
$FF xor $30 xor $23 xor $45 xor $31 xor $30 xor $30 xor $2F = $B7
The obtained value $B7 we present on two bytes in form of character form 'B' and '7' ($42 $37).
So, the sequence sent to the computer shall assume the following form:
$1B $50 $30 $23 $45 $31 $30 $30 $2F $42 $37 $1B $5C. If no mistake has been made, the printer will increase the counter responsible for state of cash and will print out a receipt which confirms execution of operation confirmation.

Printer starts execution of a command not before the moment of reading out an "ending" of a sequence, it means characters <ESC> \ ($1B $5C). If during analysis of the received sequence there occurs an error – then printer does not interpret the next part of the command up till the moment of receiving the "ending". The same effect will have receiving a character <ESC> in the middle of a sequence. Finding characters <ESC> P results in starting-up sequence analysis from the very beginning. Appearing the code **CAN** ($18) causes interruption of the analysis command and jumping into the main analysis loop.

Remarks:

1. Sequences: displayer/drawer controlling, demand for sending back cash register information, demand for sending back time sent In cash register, demand for sending back last command's error, sequence sending back the type and version of software do not require sending check digits '**cc**'.
2. After receiving a sequence there may turn-up an error message. One shall note that command may not be recognized also on account of wrong mode of operation of the printer – e.g. while printing data base report the printer does not recognize other commands than those related with the concerned report. .
3. Receiving by the printer a command header: **<ESC>P** always causes suspension of the interpretation of the former command (provided it has not been executed yet). Return to interpretation of the control characters **<ENQ>**, **<DLE>** and **<BEL>** requires receiving by the printer a command terminator : **<ESC>** .For example, interpretation command displayer/drawer controlling ends (regardless of its variation) at the moment of receiving a terminator, although in some variants of this command the characters between its identifier (**$d**) and terminator **<ESC>** will be simply ignored. Occurrence of syntax error or command execution always results in interpretation interruption and return to the main loop of syntax analysis (where codes **ENQ** and **BEL** are being detected).
4. Any data sent to the printer has got ASCII characters – printable (excluded e.g. codes **<ESC>**, **<ENQ>**, **<DLE>**, **<CR>** and the like, which are of special importance), the above concerns also any numerical data, which is to be converted into ASCII before dispatch (it is possible to compress the meaningless zeros).
5. If a parameter is ignored in control codes it means it may have any value, or may not appear, what in turn, respectively exert influence on the value of control byte **cc**.

2. Error handling.

As result of command sending to the printer there may turn up three types of errors:

- error of unrecognized command - printer received a preset command (characters <ESC> P) but did not recognized the command (incorrect 'xx').

- syntax command error - command is correct, nevertheless there is discrepancy in e.g. number of sent parameters or the check sum was faulty calculated. Such a command is ignored.

- command execution error - command has been constructed correctly, but due to some reasons it cannot be executed (Overflow of counters, calculation error or error caused by faulty operation of the printer hardware).

In any of the above mentioned cases, the printer will inform the User about an error with appropriate message on the LCD or sends information to the computer of an error after receiving a sequence for sending back cash register information (field- the last error). Possible values of this field contain specification of errors.

3 Controlling sequences.

3.1. Printers' data readout commands.

3.1.1. Setting errors' handling mode.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Service mode	0..3		1	
3	Command	**#e**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

Where:

Service mode
0: appearance of the error during realization of the sequence causes display of the message and stoppage of the processing until pressing the OK button,
1: appearance of the error brings no message and does not stop the processing. The kind of the error may be tested with the appliance of the demand for setting back cash register information sequence (the field: Last response error), or demand for setting back the code of last command's error sequence
2: appearance of the error during realization of the sequence causes display of the message and

stoppage of the processing until pressing the OK button. The error code after conducting the

Command is automatically sent to the interface,

3: appearance of the error brings no message and does not stop the processing. The error code after

conducting the Command is automatically sent to the interface.

Format of the automatically sending back message is:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Error code	0..		1..2	0 – OK.
3	Response code	**#Z**		2	
4	First character	Character		1	Two-character identifier of the sequence
5	Second character	character		1	
6		<ESC>\		2	

Errors' codes:

2: control byte error,
4: parameter error.

Remarks:

1. After setting on the power supply (not after „waking up" the printer), the mode of working with display of error messages (Service mode = 0) is normally chosen.
2. During cooperation with the more advanced applications which use the dialogue with the printer for receiving the confirmation the correctness of conducting specified operations, it is reasonable to send the described sequence in order to block sending messages about errors.

3. Some sequences, irrespectively of setting off messages about errors, require manual confirmation from the keyboard (using the 'YES' button). It usually applies to operations leading to recording the data to the fiscal memory (e.g. changes in VAT rates [Tax of Goods and Services], daily report).

3.1.2. Demand for return the error code of the last command.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Ignored	0..255 or none		1	
3	Command	**#n**		2	
4		<ESC>\		2	

Format of the sending back information looks as follows:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**1#E**		3	
3	Error code	0..		1..	
4		<ESC>\		2	

Where:

Error code
Number determining the error code.

Remarks:

1. During realization of this command errors not appears.
2. Error code is not modified after realizing this command, unlike the command demand for setting back cash register information, which realization causes resetting of this code.
3. Error code is cancelled in the moment of realization of each command except the described one; a totally dependable procedure of testing the correctness of realization of the command should also test the byte of CMD response to the ENQ code, which should be sent after each command.

3.1.3. Demand of the sending back cash register information.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Mode	0..21, 22, 23, 24, 99 and: 50, 52, 53, 62, 63, 90, 100, 200 or none		0..2	
3	Command	**#s**		2	
4		<ESC>\		2	

The printer's response format depends on the value of the mode parameter.

For mode 0..21 (also when the mode does not appear), the format of the printer's response is in accordance to older versions of fiscal printers. It has been stated as a rule that the free charge {No TAX} is defined in the 'G' rate (the last one), thanks to what the response format does not change in relation to previous versions (except the unique number which is 1 character longer). In such case (if one free rate in the printer is attributed to letter 'G') and there are 1...6 VAT defined rates. Format of the sending back information looks as follows:

No	Field name	Content	Separator	Size	Remarks

1		\<ESC\>P		2	
2	Response code	**1#X**		3	
3	The last error	0..	;	1..	
4	Fiscalization	0..1	;	1	
5	Transaction	0..1	;	1	
6	Transaction OK.	0..1	;	1	
7	Constant value	1	;	1	
8	Number of resets	0..	;	1..	
9	Year	0..99	;	1..2	
10	Month	1..12	;	1..2	
11	Day	1..31	**/**	1..2	
12	VAT A	Number	**/**	1..10	The quantity of the VAT rates sent back is the same as programmed in the printer
13	VAT B	Number	**/**	1..10	
14	VAT C	Number	**/**	1..10	
15	VAT D	Number	**/**	1..10	
16	VAT E	Number	/	1..10	
17	VAT F	Number	/	1..10	
18	Quantity of receipts	0..	/	1..	
19	Totalizer A	Number	/	1..10	Quantity of totalizers sent back is at 1 higher than the quantity of VAT rates sent back. The last totalizer includes the data for the free rate
20	Totalizer B	Number	/	1..10	
21	Totalizer C	Number	/	1..10	
22	Totalizer D	Number	/	1..10	
23	Totalizer E	Number	/	1..10	
24	Totalizer F	Number	/	1..10	
25	Totalizer G	Number	/	1..10	
26	Cash	Number	/	1..10	
27	Unique number	Inscription		11	
28		\<ESC\>\\		2	

If the VAT rates were defined for the printer using the <u>change in VAT rates</u> with the parameter of rates' quantity = 7, the programmers can send the described sequence with the parameter mode = 22, 23 or 99. In such case, the response format is 'rigid' and looks as follows:

No	Field name	Content	Separator	Size	Remarks
1		\<ESC\>P		2	
2	Response code	**2#X**		3	
3	The last error	0..	;	1..	
4	Fiscalization	0..1	;	1	
5	Transaction	0..1	;	1	
6	Transaction OK.	0..1	;	1	
7	Constant value	1	;	1	
8	Number of resets	0..	;	1..	
9	Year	0..99	;	1..2	

No.	Field name	Content	Separator	Size	Remarks
10	Month	1..12	;	1..2	
11	Day	1..31	/	1..2	
12	VAT A	Number	/	1..10	
13	VAT B	Number	/	1..10	
14	VAT C	Number	/	1..10	
15	VAT D	Number	/	1..10	
16	VAT E	Number	/	1..10	
17	VAT F	Number	/	1..10	
18	VAT G	Number	/	1..10	
18	Quantity of receipts	0..	/	1..	
19	Totalizer A	Number	/	1..10	
20	Totalizer B	Number	/	1..10	
21	Totalizer C	Number	/	1..10	
22	Totalizer D	Number	/	1..10	
23	Totalizer E	Number	/	1..10	
24	Totalizer F	Number	/	1..10	
25	Totalizer G	Number	/	1..10	
26	Cash	Number	/	1..10	
27	Unique number	Inscription		11	
28	Control byte	00..FF		2	
29		<ESC>\		2	

In both cases the response looks the same, but for mode parameter = 22, the information about sent back totalizers concerns the current (open) receipt, while in case of mode = 23 it includes summary values starting from the last daily report and if the mode = 99, the information about the cash is sent in the Cash field, but in €, not in PLN [zł].

To read detailed information about how much fiscal memory is already occupied, about value of the last receipt and amount of blocked goods, one should use Type = 24. The response packet looks as follow:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**3#X**		3	
3	Year	0..99	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Amount of recorded reports	Number	/	1..10	
7	Amount of free reports	Number	/	1..10	
8	Amount of blocked goods	Number	/	1..10	
9	Totalizer A par.	Number	/	1..10	
10	Totalizer B par.	Number	/	1..10	
11	Totalizer C par.	Number	/	1..10	
12	Totalizer D par.	Number	/	1..10	
13	Totalizer E par.	Number	/	1..10	
14	Totalizer F par.	Number	/	1..10	
15	Totalizer G par.	Number	/	1..10	
16	Control byte	00..FF		2	

17		<ESC>\		2	

To get cash information: number of the last printout and amount of printed invoices (the printer with invoice operating), one should use Type = 50. The response packet looks as follow:

For Posnet protocol:

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Order	50**#X**		2	
3	Number of documents reduced by number of invoices	Number	/	1..10	
4	Number of invoices	Number	/	1..10	Number of the last printed invoice
5	Constant value	0	/	1	
6	Constant value	0	/	1	
7	Constant value	0	/	1	
8	Control byte	00..FF		2	
9		<ESC>\		2	

For Novitus protocol:

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Order	50**#X**		2	
3	Number of document	Number	/	1..10	Number of the last printed document
4	Reset printer's totalizers	0, 1	/	1	1 – yes 0 – no
5	Constant value	0	/	1	
6	Constant value	0	/	1	
7	Constant value	0	/	1	
8	Constant value	0	/	1	
9	Control byte	00..FF		2	
10		<ESC>\		2	

To get information about state of <u>pocket</u> memory carrier (the fiscal printers with electronic copy), one should use Type = 90. The response packet looks as follow:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Order	**90#X**		2	
3	Card label	Text	<CR>	1..10	
4	Card state	Text	<CR>	1	'O' – open, 'Z' – closed, 'N' – unknown, 'W' – card out (no card), 'B' – error on the card, '?' – unknown state
5	Card size	Number	<CR>	1..14	(in bytes)
6	How much free place	Number	<CR>	1..14	(in bytes)
7	Amount of data files on the card	Number	<CR>	1..10	
8	Amount of free	Number	<CR>	1..4	

No.	Field name	Content	Separator	Size	Remarks
	daily reports				
9	Number of the last daily report	Number	<CR>	1..4	(1830 – max. number)
10	Date and time of the last record on the card	Date, time	<CR>	16	(The last complete record of the file with report format: yyyy-mm-dd hh:mm
11	Control byte	00..FF		2	
12		<ESC>\		2	

To get information about totalizers value and transaction state, one should use Type = 100. The order packet looks as follow:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	100	;	3	
3	Type of resent amounts	0..2	;	1	Type of resent amounts: 0 – gross amounts 1 – net amounts 2 – tax (VAT) amounts
4	Order	**#s**		2	
5	Control byte	00..FF		2	
6		<ESC>\		2	

The respond packet looks as follow:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	100	;	3	
3	Type of amounts	0..2	;	1	Type of resent amounts: 0 – gross amounts 1 – net amounts 2 – tax (VAT) amounts
4	Transaction state	Number		1..2	Transaction state: 0 – no transaction 1 – receipt 17 – receipt in block mode (OFFLINE) 19 – VAT (tax) invoice
5	Order	**#X**		2	
6	Sum of totalizers values	Number	/	1..20	
7	Totalizer A	Number	/	1..20	
8	Totalizer B	Number	/	1..20	
9	Totalizer C	Number	/	1..20	
10	Totalizer D	Number	/	1..20	
11	Totalizer E	Number	/	1..20	
12	Totalizer F	Number	/	1..20	
13	Totalizer G	Number	/	1..20	
14	Constant value	0	/	1	
15	Constant value	0	/	1	
16	Constant value	0	/	1	
17	Control byte	00..FF		2	
18		<ESC>\		2	

To get information about state of chosen position from VAT (tax) invoice (the printer with invoices operating), one should use Type = 200. The order packet looks as follow:

No.	Field name	Content	Separator	Size	Remarks

1		<ESC>P		2	
2	Constant value	200	;	3	
3	Type of information	0..2	;	1	Type of information about chosen position from VAT invoice: 0 – gross value, 1 – net value, 2 – VAT (tax) value
4	Number of position	0..255		1..3	Number of position from VAT invoice counted from 0 (zero).
5	Order	**#s**		2	
6	Control byte	00..FF		2	
7		<ESC>\		2	

The respond packet looks as follow:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	200		3	
3	Order	**#X**		2	
4	Amount	Number	/	1..20	
5	Control byte	00..FF		2	
6		<ESC>\		2	

The order is dedicated to setting mode of totalizers resenting as answer to order #s Type 22.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	243	;	3	
3	Resenting mode	0, 1			Resenting mode: 0 – totalizers data of receipts, 1 – totalizers data of invoices
5	Order	**$r**		2	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:

The last error
  Error code of realization of the present sequence, 0 if the sequence was not correctly realized or was not recognized,
Fiscalization
  0: training work mode,
  1: fiscal work mode,
Transaction
  1: the printer is in the transaction mode,
Transaction OK
  1: the last transaction has been successfully finished,
Number of resets
  The quantity of RAM resets recorded in fiscal memory,
Year, Month, Day
  The date of the last record to the fiscal memory,
VAT A .. VAT G
  VAT tax rates. If the rate is free it is sent as 98.99, while if not used – as 99.99.
Quantity of receipts
  The quantity of printed fiscal receipts ($\leq$ number of the next $\geq$ -1); fiscal receipts counter is clear during fiscalization and resets of RAM),
Totalizer A .. Totalizer G
  States of totalizers of specified VAT rates (gross values),
Totalizer par. A .. Totalizer par. G
  States of totalizers of the last receipt for the specified VAT (tax) rates (gross values),
Cash

Condition of cash in the cash register (in PLN [zł] or €),
Unique number
Unique number in the ABCNNNNNNNNN system,
Amount of recorded reports
Data amount (daily reports) recorded in the fiscal memory
Amount of free reports
Amount of free (daily reports) spaces for recording in the fiscal memory
Amount of blocked goods
Amount of blocked goods

<u>Remark:</u>

Errors do not appear.

3.1.4. Sequence sending back the type and version of software.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**#v**		2	
3		<ESC>\		2	

Format of the sending back information looks as follow:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**1#R**		3	
3	Type	Inscription	/	0..	
4	Version	Inscription		0..	
5		<ESC>\		2	

<u>Where:</u>

Type
inscription describing the type of the device, e.g. 'VENTO',
Version
number of the software version, e.g. '1.00'.

<u>Error code:</u>
1: non-initiated printer's clock.

3.1.5. Sequence sending back information about the device.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Type of information	0..4,20		1	0 – general 1 – details for fiscal memory 2 – details on the status of power of battery and accumulator 3 – status of printout 4 – status of drawing 20 – status of accumulator and power
3	Command	**$i**		2	
4		<ESC>\		2	

Format of the sending back information looks as follow:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	

2	Information type	0		1	Constant value – general information
3	Response code	**$I**		2	
4	Device name	Text	<CR>	variable	
5	Program version	Text	<CR>	variable	
6	Version of printing module	Text	<CR>	variable	
7	System name	Text	<CR>	variable	
8	System version	Text	<CR>	variable	
9	Quantity of displays	Number	<CR>	variable	
10	Printout width	Number	<CR>	variable	Maximum number of characters per line
11	Electronic copy	Number	<CR>	variable	0 – shortage 1 – electronic copy operating
12	Size of fiscal memory	Number	<CR>	variable	In bytes
13	Control byte	00..FF		2	
14		<ESC>\		2	

Format of the sending back detailed information for fiscal memory:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Information type	1		1	Constant value – detailed information for fiscal memory
3	Response code	**$I**		3	
4	Size of fiscal memory	Number	<CR>	variable	In bytes
5	Size of record	Number	<CR>	variable	In bytes
6	Acting mode	Number	<CR>	variable	0 – non-fiscal 1 - fiscal
7	Unique number	Text	<CR>	variable	
8	NIP number	Text	<CR>	variable	
9	Maximum quantity of records	Number	<CR>	variable	
10	Quantity of records	Number	<CR>	variable	
11	Maximum quantity of daily reports	Number	<CR>	variable	
12	Quantity of daily reports	Number	<CR>	variable	
13	Maximum quantity of RAM resettings	Number	<CR>	variable	
14	Quantity of RAM resettings	Number	<CR>	variable	
15	Maximum quantity of PTU rates changes	Number	<CR>	variable	
16	Quantity of PTU rates changes	Number	<CR>	variable	
17	Maximum quantity of currency changes	Number	<CR>	variable	
18	Quantity of currency	Number	<CR>	variable	

No.	Field name	Content	Separator	Size	Remarks
	changes				
19	Fiscalization date	Text	<CR>	19	Format: "RRRR-MM-DD GG:MM:SS" Warning: Date is valid in fiscal mode and after closing fiscal mode (**from Novitus HDe printer**)
20	Date of closing fiscal mode	Text	<CR>	19	Format: "RRRR-MM-DD GG:MM:SS" Warning: Date is valid after closing fiscal mode (**from Novitus HDe printer**)
21	Name of current currency	Text	<CR>	variable	(**from Novitus HDe printer**)
22	Control byte	00..FF		2	
23		<ESC>\		2	

Format of the sending back information on status of power:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Information type	2		1	Constant value – information on status of power of battery and accumulator
3	Response code	**$I**		2	
4	Power supplier connected	Text	<CR>	variable	
5	Voltage of power	Text	<CR>	variable	
6	Voltage of accumulator	Text	<CR>	variable	
7	Voltage of battery	Text	<CR>	variable	
8	Control byte	00..FF		2	
9		<ESC>\		2	

Format of sending back information on status of printout:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Information type	3		1	Constant value – information on status of printout
3	Response code	**$I**		2	
4	Version of printing module	Text	<CR>	variable	
5	Printout width [in characters]	Number	<CR>	variable	Maximum number of characters in line
6	Printout width [in mm]	Number	<CR>	variable	0 – 57 [mm] 1 – 80 [mm]
7	Font	Number	<CR>	variable	0 – normal 1 – increased
8	Paper cutter	Number	<CR>	variable	0 – switched off 1 – switched on
9	Paper quantity	Number	<CR>	variable	0 – below critical level 1 – above critical level
10	Control byte	00..FF		2	
11		<ESC>\		2	

Format of sending back information on status of drawer:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Information type	4		1	Constant value – information on status of drawer
3	Response code	**$I**		2	
4	Status of drawer	Number	<CR>	1	0 – open 1 – closed
5	Control byte	00..FF		2	
6		<ESC>\		2	

Format of sending back information on status of accumulator and power:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Information type	20		1	Constant value – information on status of accumulator and power
3	Response code	**$I**		2	
4	Power mode	Number	<CR>	variable	0 – working on accumulator 1 – working on power supply
5	Voltage of power supply [mV]	Number	<CR>	variable	
6	Voltage of accumulator [mV]	Number	<CR>	variable	
7	Battery voltage to sustain RAM/ clock [mV]	Number	<CR>	variable	
8	Status of accumulator	Number	<CR>	variable	0 – completely discharged 1 – low level of charging 2 – charged and works correctly 3 – accumulator is charging.... 4 – accumulator voltage out of range 5 – accumulator damaged
9	Status of battery sustaining RAM / clock	Number	<CR>	variable	0 – discharged / damaged 1 – correct
10	The accumulator level [%]	Number	<Cr>	variable	
11	Control byte	00..FF		2	
12		<ESC>\		2	

Error code:

1: non-initiated printer's clock .

3.1.6. Demand of sending back the time set in the printer.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Ignored	0..255 or none		1	
3	Command	**#c**		2	
4		<ESC>\		2	

Format of the sending back information looks as follow:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	

2	Response code	**1#C**		3	
3	Year	0..49	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Hour	0..23	;	1..2	
7	Minute	0..59	;	1..2	
8	Constant value	0		1	
9		<ESC>\		2	

Where:

    Year, Month, Day
      Date set in the printer,
    Hour, Minute
      Time set in the printer.

Errors' codes:

    1: non-initiated printer's clock,
    5: error in printer clock's readout.

3.1.7. Readout of fiscal memory content.

Readout of the fiscal memory is started by determining the date or the number of the record, starting from which, sending the information back shall be proceeded.

In case of date, the sent sequence looks as follow:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Year	0..99	;	1..2	
3	Month	1..12	;	1..2	
4	Day	1..31	;	1..2	
5	Hour	0..23	;	1..2	
6	Minute	0..59	;	1..2	
7	Second	0..59	;	1..2	
8	Mode	25		2	
9	Command	**#s**		2	
10		<ESC>\		2	

In case of record's number, the sequence looks as follow:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Mode	26		2	
3	Command	**#s**		2	
4	Record number	Number	/	1..10	
5		<ESC>\		2	

After defining where the readout of the content of fiscal memory should start from, reading out the subsequent records may start. To provide this, prior to each readout, one should send the sequence of each subsequent record, demanding sending it back and setting at the next one. This sequence always looks as follow:

No	Field name	Content	Separator	Size	Remarks

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Mode	27		2	
3	Command	**#s**		2	
4		<ESC>\		2	

Formats of the sending back information look as follow:

Daily report record:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**10#X**		4	
3	Year	0..49	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Hour	0..23	;	1..2	
7	Minute	0..59	;	1..2	
8	Second	0..59	;	1..2	
9	Number of receipts	Number	;	1..10	
10	Number of cancelled receipts	Number	;	1..10	
11	Quantity of changes in PLU base	Number	;	1..10	
12	Value of cancelled receipts	Number	/	1..10	
13	Totalizer A	Number	/	1..10	
14	Totalizer B	Number	/	1..10	
15	Totalizer C	Number	/	1..10	
16	Totalizer D	Number	/	1..10	
17	Totalizer E	Number	/	1..10	
18	Totalizer F	Number	/	1..10	
19	Totalizer G	Number	/	1..10	
20	Control byte	00..FF		2	
21		<ESC>\		2	

Record of changes in VAT rates:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**11#X**		4	
3	Year	0..49	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Hour	0..23	;	1..2	
7	Minute	0..59	;	1..2	
8	Second	0..59	;	1..2	
9	Constant value	0	;	1	
10	Constant value	0	;	1	
11	Constant value	0	;	1	
12	Constant value	0	**/**	1	

No	Field name	Content	Separator	Size	Remarks
13	VAT A	Number	/	1..10	
14	VAT B	Number	/	1..10	
15	VAT C	Number	/	1..10	
16	VAT D	Number	/	1..10	
17	VAT E	Number	/	1..10	
18	VAT F	Number	/	1..10	
19	VAT G	Number	/	1..10	
20	Control byte	00..FF		2	
21		<ESC>\		2	

Record of RAM resets:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**12#X**		4	
3	Year	0..49	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Hour	0..23	;	1..2	
7	Minute	0..59	;	1..2	
8	Second	0..59	;	1..2	
9	Reason for reset	Number	;	1..10	
10	No of reset	Number	;	1..10	
11	Constant value	0	;	1	
12	Constant value	0	**/**	1	
13	Constant value	0	/	1	
14	Constant value	0	/	1	
15	Constant value	0	/	1	
16	Constant value	0	/	1	
17	Constant value	0	/	1	
18	Constant value	0	/	1	
19	Constant value	0	/	1	
20	Control byte	00..FF		2	
21		<ESC>\		2	

Record of starting the sale after RAM reset:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**13#X**		4	
3	Year	0..49	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Hour	0..23	;	1..2	
7	Minute	0..59	;	1..2	
8	Second	0..59	;	1..2	
9	Constant value	0	;	1	
10	Constant value	0	;	1	

No	Field name	Content	Separator	Size	Remarks
11	Constant value	0	;	1	
12	Constant value	0	**/**	1	
13	Constant value	0	/	1	
14	Constant value	0	/	1	
15	Constant value	0	/	1	
16	Constant value	0	/	1	
17	Constant value	0	/	1	
18	Constant value	0	/	1	
19	Constant value	0	/	1	
20	Control byte	00..FF		2	
21		<ESC>\		2	

The sequence informing that there are no more records left for readout:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**25#X**		4	
3	Constant value	0	;	1	
4	Constant value	0	;	1	
5	Constant value	0	;	1	
6	Constant value	0	;	1	
7	Constant value	0	;	1	
8	Constant value	0	;	1	
9	Constant value	0	;	1	
10	Constant value	0	;	1	
11	Constant value	0	;	1	
12	Constant value	0	**/**	1	
13	Constant value	0	/	1	
14	Constant value	0	/	1	
15	Constant value	0	/	1	
16	Constant value	0	/	1	
17	Constant value	0	/	1	
18	Constant value	0	/	1	
19	Constant value	0	/	1	
20	Control byte	00..FF		2	
21		<ESC>\		2	

Where:

Year, Month, Day
   Date set in the printer,
Hour, Minute
   Time set in the printer.

Errors' codes:

1: non-initiated printer's clock,
5: error in printer clock's readout.

3.1.8. Readout of the fiscal memory for devices with approval of 2009.

Initial orders:

For initiation of the starting record there are used orders with parameter:
25 – setting according dates,
26 – setting according record

Readout orders:

Order of readout the current record:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	37		2	
3	Command	**#s**		2	
4		<ESC>\		2	

Answers

Data of daily report's record:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	20		2	
3	Respond code	**#X**		2	
4	Year	0..49	;	1..2	
5	Month	1..12	;	1..2	
6	Day	1..31	;	1..2	
7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	
10	Amount of receipt	Number	;	1..10	
11	Amount of annulled receipts	Number	;	1..10	
12	Amount of changes in goods base	Number	;	1..10	
13	Value of annulled receipts	Number	/	1..10	
14	Totalizer A	Number	/	1..10	
15	Totalizer B	Number	/	1..10	
16	Totalizer C	Number	/	1..10	
17	Totalizer D	Number	/	1..10	
18	Totalizer E	Number	/	1..10	
19	Totalizer F	Number	/	1..10	
20	Totalizer G	Number	/	1..10	
21	Totalizer AFV	Number	/	1..10	
22	Totalizer BFV	Number	/	1..10	
23	Totalizer CFV	Number	/	1..10	
24	Totalizer DFV	Number	/	1..10	
25	Totalizer EFV	Number	/	1..10	
26	Totalizer FFV	Number	/	1..10	
27	Totalizer GFV	Number	/	1..10	
28	Amount of VAT invoices	Number	/	1..10	
29	Control byte	00..FF		2	
30		<ESC>\		2	

Record's data of changing tax rates:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	21		2	
3	Response code	**#X**		2	
4	Year	0..49	;	1..2	
5	Month	1..12	;	1..2	
6	Day	1..31	;	1..2	
7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	
10	Constant value	0	;	1	
11	Constant value	0	;	1	
12	Constant value	0	;	1	
13	Constant value	0	**/**	1	
14	VAT A rate	Number	/	1..10	
15	VAT B rate	Number	/	1..10	
16	VAT C rate	Number	/	1..10	
17	VAT D rate	Number	/	1..10	
18	VAT E rate	Number	/	1..10	
19	VAT F rate	Number	/	1..10	
20	VAT G rate	Number	/	1..10	
21	Constant value	0	/	1	
22	Constant value	0	/	1	
23	Constant value	0	/	1	
24	Constant value	0	/	1	
25	Constant value	0	/	1	
26	Constant value	0	/	1	
27	Constant value	0	/	1	
28	Constant value	0	/	1	
29	Control byte	00..FF		2	
30		<ESC>\		2	

Record's data of RAM memory resetting:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	22		2	
3	Response code	**#X**		2	
4	Year	0..49	;	1..2	
5	Month	1..12	;	1..2	
6	Day	1..31	;	1..2	
7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	
10	Reason of resetting	Number	;	1..10	
11	No of resetting	Number	;	1..10	
12	Constant value	0	;	1	

13	Constant value	0	**/**	1	
14	Constant value	0	/	1	
15	Constant value	0	/	1	
16	Constant value	0	/	1	
17	Constant value	0	/	1	
18	Constant value	0	/	1	
19	Constant value	0	/	1	
20	Constant value	0	/	1	
21	Constant value	0	/	1	
22	Constant value	0	/	1	
23	Constant value	0	/	1	
24	Constant value	0	/	1	
25	Constant value	0	/	1	
26	Constant value	0	/	1	
27	Constant value	0	/	1	
28	Constant value	0	/	1	
29	Constant value	0	/	1	
30	Constant value	0	/	1	
31	Control byte	00..FF		2	
32		<ESC>\		2	

Where:

Year, Month, Day
  Date set in the printer,
Hour, Minute
  Time set in the printer.

Errors' codes:

  1: non-initiated printer's clock,
  5: error in printer clock's readout.

3.1.9. Readout of the fiscal memory content for devices with the electronic copy.

Order of setting initial record according to dates (NOVITUS):

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Mode	53		2	
3	Year	0..99	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Hour	0..23	;	1..2	
7	Minute	0..59	;	1..2	
8	Second	0..59	;	1..2	
9	Command	**#s**		2	
10		<ESC>\		2	

Order of setting initial record according to record number (NOVITUS):

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Mode	63		2	
3	Command	**#s**		2	

4	Record's number	Number	/	1..10	
5		<ESC>\		2	

Order of readout:

Order of readout the current record:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Mode	27		2	
3	Command	**#s**		2	
4		<ESC>\		2	

Answers:

Record's data of currency change setting (NOVITUS):

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	30		2	
3	Response code	**#X**		2	
4	Year	0..99	;	1..2	Two last digits of the year
5	Month	1..12	;	1..2	Number of month in the year
6	Day	1..31	;	1..2	Number of day in the given month
7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	
10	Constant value	1	;	1	
11	Constant value	1	;	1	
12	Constant value	1	;	1	
13	Name of currency	Test	<CR>	1..3	
14	Year of change	0..99	/	1..2	Two last digits of the year
15	Month of change	1..12	/	1..2	Number of month in the year
16	Day of change	1..31	/	1..2	Number of day in the given month
17	Hour of change	0..23	/	1..2	
18	Minute of change	0..59	/	1..2	
19	Exchange rate	Number	/	1..13	
20	Constant value	1	/	1	
21	Control byte	00..FF		2	
22		<ESC>\		2	

Record's data of currency change (NOVITUS):

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	31		1	
3	Response code	**#X**		2	
4	Year	0..99	;	1..2	Two last digits of the year
5	Month	1..12	;	1..2	Number of month in the year
6	Day	1..31	;	1..2	Number of day in the given month
7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	

10	Constant value	1	;	1	
11	Constant value	1	;	1	
12	Constant value	1	;	1	
13	Name of the currency	Test	<CR>	1..3	
14	Year of change	0..99	/	1..2	Two last digits of the year
15	Month of change	1..12	/	1..2	Number of month in the year
16	Day of change	1..31	/	1..2	Number of day in the given month
17	Hour of change	0..23	/	1..2	
18	Minute of change	0..59	/	1..2	
19	Exchange rate	Number	/	1..13	
20	Constant value	1	/	1	
21	Control byte	00..FF		2	
22		<ESC>\		2	

Record's data of daily report (format for the electronic copy and VAT invoices) (NOVITUS):

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	32		2	
3	Response code	**#X**		2	
4	Year	0..99	;	1..2	Two last digits of the year
5	Month	1..12	;	1..2	Number of month in the year
6	Day	1..31	;	1..2	Number of day in the given month
7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	
10	Amount of receipts	Number	;	1..10	
11	Amount of annulled receipts	Number	;	1..10	
12	Amount of changes in goods base	Number	;	1..10	
13	Number of daily report	Number	;	1..10	
14	Sum of gross sale	Number	**/**	1..10	
15	Sum of VAT rates	Number	**/**	1..10	
16	Amount of printouts	Number	;	1..10	
17	Amount of receipts	Number	;	1..10	
18	Number of the last receipt	Number	;	1..10	
19	Number of the last printout	Number	;	1..10	
20	Value of annulled receipts	Number	/	1..10	
21	Totalizer A	Number	/	1..10	Gross
22	Totalizer B	Number	/	1..10	Gross
23	Totalizer C	Number	/	1..10	Gross
24	Totalizer D	Number	/	1..10	Gross
25	Totalizer E	Number	/	1..10	Gross
26	Totalizer F	Number	/	1..10	Gross
27	Totalizer G	Number	/	1..10	Gross
28	Total sum of VAT A	Number	/	1..20	Increasingly
29	Total sum of VAT B	Number	/	1..20	Increasingly *

No.	Field name	Content	Separator	Size	Remarks
30	Total sum of VAT C	Number	/	1..20	Increasingly *
31	Total sum of VAT D	Number	/	1..20	Increasingly *
32	Total sum of VAT E	Number	/	1..20	Increasingly *
33	Total sum of VAT F	Number	/	1..20	Increasingly *
34	Total sum of VAT G	Number	/	1..20	Increasingly *
35	Total sum of VAT	Number	/	1..20	Increasingly *
36	Total sum of gross sale	Number	/	1..20	Increasingly *
37	Totalizer AFV	Number	/	1..10	Gross
38	Totalizer BFV	Number	/	1..10	Gross
39	Totalizer CFV	Number	/	1..10	Gross
40	Totalizer DFV	Number	/	1..10	Gross
41	Totalizer EFV	Number	/	1..10	Gross
42	Totalizer FFV	Number	/	1..10	Gross
43	Totalizer GFV	Number	/	1..10	Gross
44	Total sum of AFV tax	Number	/	1..20	Increasingly *
45	Total sum of BFV tax	Number	/	1..20	Increasingly *
46	Total sum of CFV tax	Number	/	1..20	Increasingly *
47	Total sum of DFV tax	Number	/	1..20	Increasingly *
48	Total sum of EFV tax	Number	/	1..20	Increasingly *
49	Total sum of FV tax	Number	/	1..20	Increasingly *
50	Total sum of GFV tax	Number	/	1..20	Increasingly *
51	Total sum of PTUFV tax	Number	/	1..20	Increasingly *
52	Total sum of FV tax gross sale	Number	/	1..20	Increasingly *
53	Amount of invoices	Number	;	1..10	
54	Number of the last invoice	Number	;	1..10	
55	Sum of FV tax sale	Number	/	1..10	
56	Sum of FV tax	Number	/	1..10	
57	A tax rate	Number	/	1..10	
58	B tax rate	Number	/	1..10	
59	C tax rate	Number	/	1..10	
60	D tax rate	Number	/	1..10	
61	E tax rate	Number	/	1..10	
62	F tax rate	Number	/	1..10	
63	G tax rate	Number	/	1..10	
64	Currency name	Inscription	<CR>	3	
65	Control byte	00..FF		2	
66		<ESC>\		2	

* - Increasingly from the moment of fiscalization or currency change.

Record's data of closing the electronic copy card (NOVITUS):

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	33		2	
3	Response code	**#X**		2	
4	Year	0..99	;	1..2	Two last digits of the year
5	Month	1..12	;	1..2	Number of month in the year
6	Day	1..31	;	1..2	Number of day in the given month

7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	
10	Constant value	1	;	1	
11	Constant value	1	;	1	
12	Constant value	1	;	1	
13	Card number	1..999	/	1..3	
14	Year of closing	0..99	/	1..2	Two last digits of the year
15	Month of closing	1..12	/	1..2	Number of month in the year
16	Day of closing	1..31	/	1..2	Number of day in the given month
17	Hour of closing	0..23	/	1..2	
18	Minute of closing	0..59	/	1..2	
19	Control byte	00..FF		2	
20		<ESC>\		2	

The fiscal printer resends also packets of record's data (described above):
    11 – changes of VAT (tax) rates,
    12 – RAM resetting,
    25 – record informing about shortage of next records in the fiscal memory

Uwagi:
    Po ustawieniu trybu odczytu pamięci fiskalnej na 53 lub 63 drukarka będzie odsyłać pakiety o
    identyfikatorach: 11, 12, 25, 30, 31, 32, 33.
    Po ustawieniu trybu odczytu pamięci fiskalnej na 54 lub 64 drukarka będzie odsyłać pakiety o
    identyfikatorach: 11, 36, 25, 30, 31, 34, 35.

Where:

    Year, Month, Day
      Date set in the fiscal printer,
    Hour, Minute
      Time set in the fiscal printer.
Error's codes:

    1: non –initiated printer's clock,
    5: error in the printer clock's readout.

3.2. Data of daily report record (format for electronic copy and VAT invoices) (NOVITUS):

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	34	;	2	
3	Format for pharmacy printer	0..1		1	0 – format for standard printer 1 – format dla pharmacy printer
4	Response code	**#X**		2	
5	Year	0..99	;	1..2	Two last digits of the year
6	Month	1..12	;	1..2	Number of month in the year
7	Day	1..31	;	1..2	Number of day in given month
8	Hour	0..23	;	1..2	
9	Minute	0..59	;	1..2	
10	Second	0..59	;	1..2	
11	Number of receipts	Number	;	1..10	
12	Number of cancelled receipts	Number	;	1..10	
13	Number of changes in goods base	Number	;	1..10	

14	Daily report number	Number	;	1..10	
15	Total gross sale	Number	/	1..10	
16	Total PTU	Number	/	1..10	
17	Number of printouts	Number	;	1..10	
18	Number of resettings	Number	;	1..10	
19	Number of the last receipt	Number	;	1..10	
20	Number of the last printout	Number	;	1..10	
21	Number of evaluations	Number	;	1..10	Appears in format for pharmacy printer
22	Number of cancelled receipts	Number	/	1..10	
23	Fee	Number	/	1..10	Appears in format for pharmacy printer
24	Totalizer A	Number	/	1..10	Gross
25	Totalizer B	Number	/	1..10	Gross
26	Totalizer C	Number	/	1..10	Gross
27	Totalizer D	Number	/	1..10	Gross
28	Totalizer E	Number	/	1..10	Gross
29	Totalizer F	Number	/	1..10	Gross
30	Totalizer G	Number	/	1..10	Gross
31	Total PTU A	Number	/	1..20	Increasingly*
32	Total PTU B	Number	/	1..20	Increasingly*
33	Total PTU C	Number	/	1..20	Increasingly*
34	Total PTU D	Number	/	1..20	Increasingly*
35	Total PTU E	Number	/	1..20	Increasingly*
36	Total PTU F	Number	/	1..20	Increasingly*
37	Total PTU G	Number	/	1..20	Increasingly*
38	Total sum of PTU	Number	/	1..20	Increasingly*
39	Total sum of gross sale	Number	/	1..20	Increasingly*
40	Totalizer AFV	Number	/	1..10	Gross
41	Totalizer BFV	Number	/	1..10	Gross
42	Totalizer CFV	Number	/	1..10	Gross
43	Totalizer DFV	Number	/	1..10	Gross
44	Totalizer EFV	Number	/	1..10	Gross
45	Totalizer FFV	Number	/	1..10	Gross
46	Totalizer GFV	Number	/	1..10	Gross
47	Total sum of PTU AFV	Number	/	1..20	Increasingly*
48	Total sum of PTU BFV	Number	/	1..20	Increasingly*
49	Total sum of PTU CFV	Number	/	1..20	Increasingly*
50	Total sum of PTU DFV	Number	/	1..20	Increasingly*
51	Total sum of PTU EFV	Number	/	1..20	Increasingly*
52	Total sum of PTU FFV	Number	/	1..20	Increasingly*
53	Total sum of PTU GFV	Number	/	1..20	Increasingly*
54	Total sum of PTU FV	Number	/	1..20	Increasingly*
55	Total sum of FV gross sale	Number	/	1..20	Increasingly*
56	Number of invoices	Number	;	1..10	
57	Number of the last invoice	Number	;	1..10	
58	Sum of FV sale	Number	/	1..10	

59	Sum of PTU FV	Number	**/**	1..10	
60	Sum of PTU A	Number	/	1..10	
61	Sum of PTU B	Number	/	1..10	
62	Rate of PTU C	Number	/	1..10	
63	Rate of PTU D	Number	/	1..10	
64	Rate of PTU E	Number	/	1..10	
65	Rate of PTU F	Number	/	1..10	
66	Rate of PTU G	Number	/	1..10	
67	Currency name	Inscription	<CR>	3	
68	Number of cancelled evaluations	Number	/	1..10	Appears in format for pharmacy printer
69	Abbreviation from electronic copy data	Inscription	<CR>	40	Format: „xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx" x – character from range 0..9 or a..f
70	Control byte	00..FF		2	
71		<ESC>\		2	

* - Increasingly from moment of fiscalisation or currency change.

3.3. Data of electronic copy card closing record (NOVITUS):

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	35		2	
3	Response code	**#X**		2	
4	Year	0..99	;	1..2	Two last digits of the year
5	Month	1..12	;	1..2	Number of month in the year
6	Day	1..31	;	1..2	Number of day in given month
7	Hour	0..23	;	1..2	
8	Minute	0..59	;	1..2	
9	Second	0..59	;	1..2	
10	Constant value	1	;	1	
11	Constant value	1	;	1	
12	Constant value	1	;	1	
13	Card number	1..999	/	1..3	
14	Year of closing	0..99	/	1..2	Two last digits of the year
15	Month of closing	1..12	/	1..2	Number of month in the year
16	Day of closing	1..31	/	1..2	Number of day in given month
17	Hour of closing	0..23	/	1..2	
18	Minute of closing	0..59	/	1..2	
19	Carrier ID	Text	<CR>	16	
20	Abbreviation	Text	<CR>	40	Format: „xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx" Where x – character from range 0..9 or a..f
21	Control byte	00..FF		2	
22		<ESC>\		2	

3.4. Record of RAM memory resetting:

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Response code	**36#X**		4	
3	Year	0..49	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31	;	1..2	
6	Hour	0..23	;	1..2	
7	Minute	0..59	;	1..2	
8	Second	0..59	;	1..2	
9	Reason of resetting	Number	;	1..10	
10	Number of resetting	Number	;	1..10	
	Kind of resetting	Hexadecimal number	;	1..10	0x0087 – RAM – fiscal 0x0098 – data base – fiscal 0x66FF – cache memory 0xFFFF – all
	There appeared sale after resetting	Number	;	1	0 – no sale after resetting (-1) – there was sale (resetting with star *)
20	Control byte	00..FF		2	
21		<ESC>\		2	

3.5. Printer programming commands.

3.5.1. Setting the clock.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Year	0..99	;	1..2	Two last digits of the year
3	Month	1..12	;	1..2	
4	Day	1..31	;	1..2	
5	Hour	0..23	;	1..2	
6	Minute	0..59	;	1..2	
7	Second	0..59		1..2	
8	Command	**$c**		2	
9	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers logging in.
10	Cashier	Inscription	<CR>	0..32	
11	Control byte	00..FF		2	
12		<ESC>\		2	

Where:

Year
  Two last digits of the year,
Month
  Number of the month of the year,
Day
  Number of the day of the month,
Hour
  Set hour,
Minute

Set minute,
Second
Ignored parameter,
Cash register number
Inscription including cash register number,
Cashier
Inscription including cashier's name,

Errors' codes:

2: control byte error,
3: wrong quantity of parameters,
4: data error,
5: error of realization (record) into printer's clock,
6: error of totalizers readout,
7: a date earlier than the date of the last record in the fiscal memory (realization impossible!),
8: operation error – non-reset totalizers.

Remarks:

1. The described sequence performs always in the full range (date and time) in the non-fiscal mode – limitations for fiscal mode are not binding for:
   - time changes only once after the daily report,
   - time changes of not more than ± 1hour.
2. In the fiscal mode, if the printer's clock requires initiation (at the first setting on and after its possible 'de-programming' in the effect of discharging of battery) that fact is signalized by a proper message on the display and the stoppage of further performance of the printer takes place! The service can set the proper date with the appliance of service functions.
3. In the fiscal mode, in case of proper performance of the clock, a correcting of not more than 1hour is possible, but only if the totalizers are reset (condition after conducting daily report) and only once after the daily report. The programmed date cannot be earlier than the last record written to the fiscal memory. In the fiscal mode, the described sequence may be used only for clock's corrects of +/- 1 hour once after the daily report.
4. In case of lack of initiation of the clock, realization of controlling sequences is blocked, except ENQ, DLE, BEL, CAN, send cash register information back and set Service mode of the errors. Conducting the reports is also blocked.

3.5.2. Change of tax (PTU) rate.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of the rates	None, 0..7		0..1	
3	Command	**$p**		2	
4	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in.
5	Cashier	Inscription	<CR>	0..32	
6	VAT A	Number	/	1..5	Quantity of parameters determining VAT rates depends on the value of parameter 2 (Quantity of the tax rates). If there is none or it is 0, there are always four rates, in other cases as much as this parameter is.
7	VAT B	Number	/	1..5	
8	VAT C	Number	/	1..5	
9	VAT D	Number	/	1..5	
10	VAT E	Number	/	1..5	
11	VAT F	Number	/	1..5	
12	VAT G	Number	/	1..5	
13	Control byte	00..FF		2	
14		<ESC>\		2	

<u>Where:</u>

Quantity of the VAT rates

0 or none: 4 rates are programmed and G rate is presumably programmed as free rate,

1..6: G rate is presumably programmed as free rate. Other rates are programmed in accordance with the parameters,

7: All rates are programmed in accordance with the given parameters.

For such programming of the VAT rates, the programmers shall use the demand for setting back the cash register information sequence with parameter 23. In such case, in the response the information about all VAT rates is always sent back (7).

Cash register number

Inscription including cash register number,

Cashier

Inscription including cashier's name,

VAT A ... VAT G*: values of VAT rates:

- xx.yy - number from the range 0,00..99,99 excluding 98.99 i 99.99 (attributing a value means that the rate is active),
- 98.99 – signification of a free rate {only for rate quantity parameter = 7}.
- 99.99 – signification of a non-active rate { only for rate quantity parameter = 7}.

Errors' codes:

1: printer's clock not initiated,

2: control byte error,

5: error of operation with printer's clock,

6: error of operation with fiscal memory,

7: date error (the one currently set is earlier than the date of last record),

8: realization impossible – totalizers not reset,

11: wrong quantity of VAT values, error of number or a trial to re-define the same rates as the ones recorded in printer's fiscal memory.

<u>Remarks:</u>

1. In the non-fiscal mode, the sequence causes a record of the VAT rates to the printer's RAM memory,
2. In a newly manufactured facility all rates are inactive,
3. When all rates are inactive:
   - the printer interprets only the sequences: setting the clock, change in VAT rates, printing periodical report, demand for sending back the time set in the printer, demand for sending back cash register information, demand for sending back error code of the last command, sequence sending back the type and version of the software. For other sequences, the device reports error No 18.
   - Trial of fiscalization (programming the header) causes projecting the proper message.
4. In case of error of realization (error in record to the fiscal memory), further performance of the printer will be suspended, i.e. the printer allows only to conduct periodical reports (it shifts to the condition only for readout),
5. This operation (like all, conducting stable record to the fiscal memory) requires confirmation from the keyboard after prior checking and approval the correctness of the date of printer's clock,
6. Sale in the „non-active" rate is blocked (compare the sequence receipt line). In the daily report only amounts of sale in „active" rates are included.

3.5.3. Programming the header.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	0		1	
3	Command	**$f**		2	
4	Header	Inscription	<#255>	0..200	
5	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in.
6	Cashier	Inscription	<CR>	0..32	

| 7 | Control byte | 00..FF | | 2 | |
| 8 | | <ESC>\ | | 2 | |

<u>Where:</u>

Header
Up to 200 ASCII characters, Polish letters are allowed (in accordance with MAZOWIA standard) as well as **CR**, **LF** codes; because in the header area can appear any ASCII character from the area $20..$7F, chosen controlling characters and Polish letters, the terminator of the string is in this case, as an exception, code #255 ($FF),
Cash register number
Inscription including cash register number,
Cashier
Inscription including cashier's name,

<u>Errors' codes:</u>

1: printer's clock not initiated,
2: control byte error,
4: parameter error,
12: wrong header (e.g. too long or including prohibited characters),
18: lack of defined VAT rates in the printer (all inactive!) – an error signalized only on series link – a proper message is projected on operator's display.

<u>Remarks:</u>

1. The character of the beginning of the line for the printer in header area is **LF** or **CR**. If separate header lines are departed by **CR LF**, an error situation will take place – empty lines will appear.
2. Controlling sequences of the printer **ESC..** are prohibited in the header area.

3.5.4. Controlling the display/drawer.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Action	1..5, 8..9		1	
3	Command	**$d**		2	
4	Text	Inscription			Must not include <ESC>...
5		<ESC>\		2	

<u>Where:</u>

Action
1: opening the drawer
2: sending the inscription to the display
3: switching the display into clock and data display mode
4: switching the display back into cash register mode
5: ignored
8: ignored
9: ignored
255: switching on sleep mode (NOVITUS HDe – PC, PC2)
Text
Inscription sent to the display

<u>Errors' codes:</u>

4: parameter error,
9: error of enter/ exit operation

<u>Remarks:</u>

1. Sequence does not possess control byte – characters are sent to the display without buffering (directly after being read out by the printer).

2. The following controlling codes are allowed: CR, LF, BS and FF ($0C) causing cleaning the display and moving the vector to the upper left corner. Display of the vector and automatic moving to a new line are blocked.

3. During issuing the receipt, the display is automatically serviced by the printer's program. Names of the subsequent goods appear in the first line, while in the second – the growing sum of charge. Thus, nothing shall be sent to the display in this mode.

3.5.5. Choosing the method of charging the discount.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Method	0 or 1		1	
3	Command	**$r**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

Where:

Method
0: second method of charging the discount
1: first method of charging the discount

Errors' codes:

1: RTC clock not initiated,
4: parameter error,

Remarks:

1. The presumable setting is the first method of charging the discount.

2. More information one can find in chapter: 4.Calculations made by the fiscal printer during receipts printing.

3.5.6. Programming date of periodical review.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	0		1	
3	Command	**$o**		2	
4	Number of days	Number	/	1..10	
5	Text	Inscription	<CR>	0..30	Optional argument
6	Control byte	00..FF		2	
7		<ESC>\		2	

or

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	1		1	
3	Command	**^t**		2	
4	Year	00..99	/	2	Two last digits of the year
5	Month	01..12	/	2	Number of month in the year

No.	Field name	Contents	Separator	Size	Remarks
6	Day	01..31	/	2	Number of day in the given month
7	Text	Inscription	<CR>	0..30	Optional argument
8	Control byte	00..FF		2	
9		<ESC>\		2	

Where:

Number of days
Number of days which left to periodical review
Year, Month, Day
Date of periodical review
Text
Telephone number of the service point, exceeding characters are cut. In case of lack of argument – the recent one remains. If the argument is empty then the option is switched off, there is displayed only reminder about calling the service team.

Errors' codes:

1: RTC cock not initiated,
4: parameter error,

3.5.7. Sequence sending back information about device.

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Type of information	0..2		1	0 – general 1 – details for fiscal memory 2 – details concerning state of power supply, accumulator and battery
3	Command	**$i**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

Format of sending back general information:

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Type of information	0		1	Constant value – general information
3	Response code	**$I**		2	
4	Device name	Text	<CR>	Variable	
5	Program version	Text	<CR>	Variable	
6	Version of printing module	Text	<CR>	Variable	
7	System name	Text	<CR>	Variable	
8	System version	Text	<CR>	Variable	
9	Number of displays	Number	<CR>	Variable	
10	Width of the printout	Number	<CR>	Variable	Maximum number of characters in line
11	Electronic copy	Number	<CR>	Variable	0 – none 1 – electronic copy operating
12	Size of fiscal memory	Number	<CR>	Variable	In bytes
13	Control byte	00..FF		2	
14		<ESC>\		2	

Format of sending back detailed information for fiscal memory:

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Type of information	1		1	Constant value – detailed information for fiscal memory
3	Response code	**$I**		3	
4	Size of fiscal memory	Number	<CR>	Variable	In bytes
5	Size of record	Number	<CR>	Variable	In bytes
6	Mode of operating	Number	<CR>	Variable	0 – non-fiscal 1 – fiscal 2 – fiscal closed
7	Unique number	Number	<CR>	Variable	
8	NIP number	Text	<CR>	Variable	
9	Maximum number of records	Number	<CR>	Variable	
10	Number of records	Number	<CR>	Variable	
11	Maximum number of daily reports	Number	<CR>	Variable	
12	Number of daily reports	Number	<CR>	Variable	
13	Maximum number of RAM resettings	Number	<CR>	Variable	
14	Number of RAM resettings	Number	<CR>	Variable	
15	Maximum number of PTU rates changes	Number	<CR>	Variable	
16	Number of PTU rates changes	Number	<CR>	Variable	
17	Maximum number of currency changes	Number	<CR>	Variable	
18	Number of currency changes	Number	<CR>	Variable	
19	Date of fiscalisation	Text	<CR>	19	Format: "RRRR-MM-DD GG:MM:SS" Remarks: Date is valid in fiscal mode and after closing fiscal mode
20	Date of closing fiscal mode	Text	<CR>	19	Format: "RRRR-MM-DD GG:MM:SS" Remarks: Date is valid after closing fiscal mode.
21	Name of current currency	Text	<CR>	Variable	
22	Control byte	00..FF		2	
23		<ESC>\		2	

Format of sending back general information:

No.	Field name	Contents	Separator	Size	Remarks
1		<ESC>P		2	
2	Type of information	2		1	Constant value – information concerning state of power supply, battery and accumulator

No.	Field name	Content	Separator	Size	Remarks
3	Response code	**$I**		2	
4	Connected power-adaptor	Text	<CR>	Variable	
5	Power of power adaptor	Text	<CR>	Variable	
6	Voltage of power adaptor	Text	<CR>	Variable	
7	Voltage of battery	Text	<CR>	Variable	
13	Control byte	00..FF		2	
14		<ESC>\		2	

<u>Error code:</u>

1: not initiated printer's clock

3.5.8. Readout of periodical review date.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	11		1	
3	Command	**^t**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

Response

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	1		1	
3	Command	**^t**		2	
4	Lear	00..99	/	2	Two last digits of the year
5	Month	01..12	/	2	Number of the month in year
6	Day	01..31	/	2	Number of day in given month
7	Text	Inscription	<CR>	0..30	Optionally
8	Control byte	00..FF		2	
9		<ESC>\		2	

<u>Where:</u>

Number of days
Number of days left for periodical review
Year, Month, Day
Date of periodical review
Text
Telephone number of the service point, exceeding characters are cut. In case of lack of argument – the recent one remains. If the argument is empty then the option is switched off, there is displayed only reminder about calling the service team.

<u>Errors codes:</u>

1: RTC cock not initiated,
4: parameter error,

<u>Remarks:</u>

1. It concerns ports PC/PC2

3.5.9. Programming the date of service blockade.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	2		1	
3	Command	**^t**		2	
4	Year	00..99	/	2	Two last digits of the year
5	Month	01..12	/	2	Number of the month in the year
6	Day	01..31	/	2	Number of the day of the given month
7	Password	Inscription	<CR>	0..30	Due to safety reasons it is not sent back
8	Text	Inscription	<CR>	0..30	
9	Control byte	00..FF		2	
10		<ESC>\		2	

<u>Where:</u>

Year, Month, Day
   Date of periodical review
Text
   Telephone number of the service point, exceeding characters are cut.

<u>Errors' codes:</u>

   1: RTC cock not initiated,
   4: parameter error

3.5.10.. Readout of service blockade date.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	12		1	
3	Command	**^t**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

Response

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	2		1	
3	Command	**^t**		2	
4	Year	00..99	/	2	Two last digits of the year
5	Month	01..12	/	2	Number of month in the year
6	Day	01..31	/	2	Number of day in the given month
7	Password	Inscription	<CR>	0..30	In view of safety, it is not sent back
8	Text	Inscription	<CR>	0..30	
9	Control byte	00..FF		2	
10		<ESC>\		2	

<u>Where:</u>

Year, Month, Day
   Date of periodical review
Text
   Telephone number of the service point, exceeding characters are cut.

Errors codes:

1: RTC cock not initiated,
4: parameter error

Remarks:

1. It concerns ports PC/PC2

3.5.11. Operating with graphic logo (graphic header).

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Function	Decimal digit	;		This item informs about what operation is about to be done: 0 – register to printer 1 – deleting graphic from printer 10 – read of graphic control sum 11 – read of graphic data
3	ID of advertisement graphic	Decimal digit	;		ID of advertisement graphic, operated in devices with graphic advertisements (BONO)
4	ID of printout graphic	Decimal digit			ID of printout graphic, operated in devices with graphic in non-fiscal printouts (DELIO 4.0).
3	Order	^f			
4	Centring	Decimal digit	/		Not operated, defauly = 0
5	Total size of graphic (hexadecimal)	Decimal number	/		Total size of graphic together with dimensions (first 4 bytes (8 hexadecimally)) in hexadecimal form (binary x2)
6	Graphic offset	Decimal number	/		Item of graphic data offset in hexadecimal format (binary x2)
7	Size of graphic part in package	Decimal number	/		Item of graphic data size sent in package in hexadecimal format (binary x2)
8	Graphic data	Text	<CR>	0..128	Data should be sent in hexadecimal format (binary size x 2). First 4 bytes (8 hexadecimally) represents width and height sent graphic. Graphic should be in monochromatic form sent from the first line to the last one. Maximum size of graphic in binary form for Delio 4.0 is 396x256 (12804 [B] (together with 4 bytes of width and height parameters).
9	Control byte	00..FF		2	
10		<ESC>\		2	

Where:
Graphic data
Graphic data more than 128 bytes (binary) should be sent in many packages with simultaneous asking about ENQ status after sending each package.
Function
Function 10 to read control sum – the device analyses taking parameter: graphic ID and send back data of control sum in field Graphic data.
Function 11 to graphic read - the device takes parameters: graphic ID and graphic offset and it sends back: total size, size in package and graphic data.

Header parameters: (resolution)

HDe	576 x 256
Delio 4.0	396 x 256

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error,
1075: incorrect format of graphic header (e.g. too big dimensions),
1076: header already programmed, one must delete existing header and then program a new one

3.6. Receipts' printing orders.

3.6.1. Beginning of transaction.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of positions	0..255		1..3	
3	Command	**$h**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

or

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of positions	0..255	;	1..3	
3	Quantity of lines	0..3		1	
4	Command	**$h**		2	
5	Line No 1	Inscription	<CR>	0..	Quantity of these parameters is the same it was fixed in field No 3 (Quantity of lines). Compare printer configuration.
6	Line No 2	Inscription	<CR>	0..	
7	Line No 3	Inscription	<CR>	0..	
8	Control byte	00..FF		2	
9		<ESC>\		2	

or

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of positions	0..255	;	1..3	
3	Quantity of lines	0..3	;	1	
4	Constant	0	;	1	
5	Type of buyer identification number	0..2		1	1 – NIP 2 – REGON 3 – PESEL
6	Command	**$h**		2	
7	Line no. 1	Inscription	<CR>	0..	Quantity of these parameters is the same like described in field no. 3 (number of lines).
8	Line no. 2	Inscription	<CR>	0..	
9	Line no. 3	Inscription	<CR>	0..	

10	Buyer identification number	Inscription	<CR>	0..13	
11	Control byte	00..FF		2	
12		<ESC>\		2	

Where:

Quantity of positions
Quantity of sale positions = 0..255, if 0 than the ON-LINE receipts (the received lines are printed currently). In NOVITUS printers, the receipts is always printed in the ON-LINE mode.
Quantity of lines
Quantity of additional lines localized at foot note of the receipt, after the fiscal logo to which the application possesses the access,
Lie No 1...Line No 3
Content of additional lines,

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error (wrong number of positions),
5: error of printer's clock readout,
6: error of operation on fiscal memory,
40: lack of the header in RAM (only in fiscal mode),
94: blockage of sale because of putting service switch
1042: pocket memory full – a daily report should be made
1043: non recorded electronic copy – the memory was full with 2 daily reports and it waits for memory carrier in order to register.

Remarks:

1. The receive of this sequence by the printer, unlike in cases of previous facilities, does not lead to printing the header. Only the PAR and CMD bits are fixed (providing the command was correctly realized).
2. The Vivo Apteka printer possesses a limit of lines up to 80. If a necessity of printing a receipt arises, one should use the „**On-Line**" mode.
3. **Printers Delio, Bono have limit up to 250 positions on receipt.**
4. Older printers do not posses the „Off-Line" receipt buffer.
5. The Quarto printers can print the same quantity of receipt lines in „Off-Line" and „On-Line" modes.
6. The provided discounts are counted as receipt lines.
7. If in the time of 30 minutes since the receive of the described sequence the printer does not receive any other sequence than the software reset the PAR bit (canceling the transaction mode without printing the information).
8. The printer prints additional lines depending on configuration fixes in Administration Mode (see Configuration of printers' work – Administration mode.)

3.6.2. Line of receipt.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Line number	0..255		1..3	If 0 than STORNO (reversal)
3	Command	**$l**		2	
4	Name	Inscription	<CR>	2..40	
5	Quantity	Inscription	<CR>	1..16	
6	VAT	Character	/	1	
7	Price	Number	/	1..10	
8	Gross	Number	/	1..10	
9	Control byte	00..FF		2	
10		<ESC>\		2	

or

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Line number	0..255	;	1..3	If 0 than STORNO
3	Kind of discount	0..4		1	
4	Command	**$l**		2	
5	Name	Inscription	<CR>	2..40	
6	Quantity	Inscription	<CR>	1..16	
7	VAT	Character	/	1	
8	Price	Number	/	1..10	
9	Gross	Number	/	1..10	
10	Discount	Number	/	1..10	
11	Control byte	00..FF		2	
12		<ESC>\		2	

or (position of receipt with goods description)

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Line number	0..255	;	1..3	
3	Kind of discount	0..4	;	1	
4	Discount description	0..16	;	1..2	
5	Goods description	0..1	;	1	
6	Command	**$l**		2	
7	Name	Inscription	<CR>	2..40	
8	Quantity	Inscription	<CR>	1..16	
9	VAT	Character	/	1	
10	Price	Number	/	1..10	
11	Gross	Number	/	1..10	
12	Discount	Number	/	1..10	
13	Discount name	Inscription	<CR>	0..40	
14	Goods description	Inscription	<CR>	0..160	It appears if „goods description" parameter = 1. Goods description can occupy max. 3 lines of text reduced with length of descriptor „description". Amount of printed text depends on printer's type (quantity of characters in the line).
15	Control byte	00..FF		2	
16		<ESC>\		2	

or

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Line number	0..255	;	1..3	If 0 than STORNO
3	Kind of discount	0..4	;	1	

4	Discount description	0..16		1..2	
5	Command	**$l**		2	
6	Name	Inscription	<CR>	2..40	
7	Quantity	Inscription	<CR>	1..16	
8	VAT	Character	/	1	
9	Price	Number	/	1..10	
10	Gross	Number	/	1..10	
11	Discount	Number	/	1..10	
12	Name of discount	Inscription	<CR>	0..40	
13	Control byte	00..FF		2	
14		<ESC>\		2	

or (position of receipt with PLU code)

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Line number	0..255	;	1..3	If 0 than STORNO
3	Kind of discount	0..4	;	1	
4	Discount description	0..16		1..2	
5	Command	**$l**		2	
6	Name	Inscription	<CR>	2..40	
7	PLU code	Inscription	<CR>	1..31	
8	Quantity	Inscription	<CR>	1..16	
9	PTU	Character	/	1	
10	Price	Number	/	1..10	
11	Gross	Number	/	1..10	
12	Discount	Number	/	1..10	
13	Name of discount	Inscription	<CR>	0..40	
14	Control byte	00..FF		2	
15		<ESC>\		2	

Where:

Line number
 0 or 1...255 , if = 0 than STORNO operation,
Kind of discount
 0: none,
 1: amount discount,
 2: percentage discount,
 3: amount overhead,
 4: percentage overhead,
Discount description
 0: no description,
 1: „special",
 2: „occasional",
 3: „opportunity",
 4: „holiday"
 5: „permanent customer",
 6: „anniversary",
 7: „birthday",
 8: „for the employee",
 9: „promotion",

10: „gift",
11: „sell-out",
12: „re-pricing",
13: „seasonable",
14: „night",
15: „service",
16: defined by the user

Name

Name of commodity. Printer's software:

-   Changes coming letters into capital ones for stock base control (small and capital letters are not distinguished),

prints small and capital letters together with prohibited characters,

PLU code

PLU code of goods can consists of numerical signs and/or 3 text signs. PLU code can be printed on receipt as:

-   text, in that field should appear pure text with code (e.g. "1234567890123")
-   bar code, in that field should appear text with code which is preceded with sign '#' (e.g.

"#1234567890123" concerns Delio fiscal printers),

Quantity

meets the same requirements as **Price** but in the "quantity" range all other characters, not only digits, are allowed. The printer distinguishes from this inscription a sequence, being a maximally 10-digits-lon number with optionally fixed ten and prints only the number determining the quantity.

VAT

Character code of VAT rate = 'A'...'F' + 'Z' or 'G' . The printer uses symbols of rates from A to G while each of these rates may be free. Using the Z or ' ' (space) character for signing free commodities is allowed if one free rate was defined in the printer. If more than one free rate was defined the printer will report error No 18,

Price

Gross **price** per unit, given with 1 grosz (cents) accuracy; the format includes up to 10 digits with a precision up to two digits after the point. This format is controlled and printed with a compression of non-meaning zeros before the point, while after the point the compression of non-meaning zeros is not conducted,

Gross

Gross amount of sale, up to 10 digits, > 0,

Discount

amount or percent of discount /overhead. The following limitations are binding:

-   the percent has to be from the range 0,01...99.99 %,
-   in case of amount discount, allowing the discount may not lead to negative result. Not meeting the above limitations leads to error #20,

Name of discount

If the parameter Discount description is 16, this text is printed on the receipt as the name of the discount.

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: wrong number of line (parameter error Pl),
16: wrong name (empty or too long),
17: wrong signing of quantity (empty or too long),
18: error caused by:
  ▪ wrong signing of VAT rate (or lack of such one),
  ▪ wrong signing of free rate (' ' or 'Z') in case if in the printer there are > 1 free rates or the free rate was not defined,
  ▪ trial to sell in inactive rate,
  ▪ performance of the mechanism of control of stock base,
19: error in Price value (syntax, range or none),
20: 1. error of gross value or discount (syntax, range or none),
    2. error of not meeting the condition: quantity x price = value – the printer checks the correctness of the sent information in accordance with the algorithm:
      ▪ it multiplies the price and the number 'caught' from the quantity,
      ▪ it rounds off the result of multiplying up to two digits after the point,
      ▪ compares the result of rounding off with the value (gross),
      ▪ in case of amount discount, providing the discount must not lead to negative result (not meeting the above leads to error #20),
21: sequence received by the printer at transaction mode set off,

22: error of STORNO operation (e.g. trial to performance in 'block' OFF-LINE mode or if as the result of its performance the sum in the given tax group becomes negative) or an error of the operation on the discount, e.g. the value of the commodity, after providing the discount, becomes negative,

90: operation only on securities, it is not possible to send commodities by the described sequence

91: the form of payment was sent, it is not possible to send commodities by the described sequence,

Remarks:

1. Lines' numeration has to be continuous, also if the STORNO operation is performed, the sequence of numbers 1,2,3,4 is correct, but there has to be: 1,2,0,4 if the STORNO operation is performed.
2. If the receipt is printed in 'block' mode (see the parameter Quantity of positions in the sequence beginning of transaction is (0) than the previously declared lines' number has to be received.
3. Providing a discount for a position bases on subtracting the discount amount against the Gross amount which is sent directly or derives from a fixed percentage rate.
4. The STORNO operation has to be controlled by an application, so that the price and quantity of commodities moved from the list correspond with each other. Moreover, an optional discount should be provided during storning.
5. The notion „time-out" was introduced for the receipt, meaning that in case of not finishing the printing of the receipt in 30 minutes since the moment of its starting, the printer cancels the transaction, at the end inscription the message:

RECEIPT CANCELLED

3.6.2.1. Blocking goods during sale.

Fiscal printer, as opposed to cash register, controls selling goods and assigned to them tax rates. It is controlled during sale if there wasn't done a tax step on particular article. Printer allows to make up to 32 tax rate changes on each article. After exceeding this limit the printer blocks the possibility of tax rate change reporting tax error. However, sale of that article with previous tax rate will still be possible.

Rule of the tax step acting:

After decreasing a tax step on particular article you can not increase it again.

Example: if article (eg. Beer) was sold once with tax rate (eg. 7%) you can change it for 22% and still sell, you can also decrease tax rate to 0% and still sell. However, if you decrease to 0% and then you try sell this product with rate 7% or 22% , then the printer would block selling this article and reports an error.

You can decrease tax rates many times, increase them also, as well as decrease after increasing but you must remember - YOU CANNOT INCREASE TAX RATE IF YOU HAD DECREASED IT EARLIER.

- Goods control is conducted as for the name and tax rate.

- Name control is conducted in his way that all letters in article name are changed for capital letters, all signs apart from alphanumerical ones and comma, dot and slashes are deleted from the name. Such converted name is verified. Example: BEER, beer, Beer%, bEEr etc. is still the same name. However, if to the name will be added one letter or digit , then it would be treated as another article.

- Tax rate control is conducted as for the rate value, not for the letter which distinguishes the particular tax rate.

So, if you sell two articles with identical name but with different tax rates, the fiscal printer after selling article with higher rate and then with lower rate would block possibility of selling article with higher rate.

3.6.3. Handling deposit in the receipt line.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of deposit (container)	6, 7, 10, 11		1..2	
3	Command	$l		2	
4	Number	Inscription	<CR>	0..4	Optional argument
5	Quantity	Inscription	<CR>	1..16	Optional argument

6	Constant	P	/	1	
7	Price	Number	/	1..10	
8	Value	Number	/	1..10	Argument ignored
9	Control byte	00..FF		2	
10		<ESC>\		2	

Where:

Kind of deposit
  6: taken deposit
  7: storno (reversal) of received deposit
  10: deposit paid back
  11: storno (reversal) of deposit paid back
Number
  Number of the package from the range 0..9999. It is an optional argument. If it appears the printer prints the inscription „Returnable package No …..", while if there is no than only „Returnable package"
Quantity
  It is an optional argument. If it appears the numeric part will be separated from it and printed as quantity.
Price
  price of the package,
Value
  Ignored argument – it has to be sent only in order to keep the format of command $l,

Errors' codes:

  1: printer's clock not initiated,
  2: control byte error,
  18: constant value error (other than P)

3.6.4. Taken deposit (for selling the package).

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	6$d		3	
3	Amount	Number	/	1..10	
4	Package No	1..127	<CR>	0..3	Optional parameters
5	Quantity	Inscription	<CR>	0..16	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:

Amount
  deposit amount (for taken packages),
Package No
  package number. In the current version a number from the range 1..127:
  -    the printer always prints the text „Returnable package No",
  - if the „Package No" parameter was not provided, the following number is printed, increased after each approval of the sequence,
Quantity
  the quantity of the package. The printer separates from the sent sequence the numeric value, which is then printed,
  -    if it appears than the information about quantity and price per package (calculated as price = Amount / quantity) are provided on the receipt,
  -    if it does not appear the printer assumes that quantity = 1 and price = Amount.

Errors' codes:

  2: control byte error,
  4: parameter error,
  9: I/O operation error,

17: wrong quantity signification (too long) or exceeded number of packages (max 32) or range exceeded for Package No = 1.. 127,
19: error in amount value (syntax, range or none),
21: sequence received by the printer at transaction mode set off.

3.6.5. Storno (reversal) of taken deposit.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**7$d**		3	
3	Amount	Number	/	1..10	
4	Package No	1..999	<CR>	0..4	Optional parameters
5	Quantity	Inscription	<CR>	0..16	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:

Amount
deposit amount (for taken packages),
Package No
package number. In the current version a number from the range 1..127:
- the printer always prints the text „Returnable package No",
- if the „Package No" parameter was not provided, the following number is printed, increased after each approval of the sequence,
Quantity
the quantity of the package. The printer separates from the sent sequence the numeric value, which is then printed,
- if it appears than the information about quantity and price per package (calculated as price = Amount / quantity) are provided on the receipt,
- if it does not appear the printer assumes that quantity = 1 and price = Amount.

Errors' codes:

2: control byte error,
4: parameter error,
9: I/O operation error,
17: wrong quantity signification (too long) or exceeded number of packages (max 32) or range exceeded for Package No = 1.. 127,
19: error in amount value (syntax, range or none),
21: sequence received by the printer at transaction mode set off

3.6.6. Returned deposit (for return of the package).

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**10$d**		4	
3	Amount	Number	/	1..10	
4	Package No	1.. 127	<CR>	0..4	Optional parameters
5	Quantity	Inscription	<CR>	0..16	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:

Amount
deposit amount (for taken packages),
Package No

package number. In the current version a number from the range 1..127:
- the printer always prints the text „Returnable package No",
- if the „Package No" parameter was not provided, the following number is printed, increased after each approval of the sequence,

Quantity

the quantity of the package. The printer separates from the sent sequence the numeric value, which is then printed,
- if it appears than the information about quantity and price per package (calculated as price = Amount / quantity) are provided on the receipt,
- if it does not appear the printer assumes that quantity = 1 and price = Amount.

Errors' codes:

2: control byte error,
4: parameter error,
9: I/O operation error,
17: wrong quantity signification (too long) or exceeded number of packages (max 32) or range exceeded for Package No = 1.. 127,
19: error in amount value (syntax, range or none),
21: sequence received by the printer at transaction mode set off

3.6.7. Storno (reversal) of the paid deposit.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**11$d**		4	
3	Amount	Number	/	1..10	
4	Package No	1.. 127	<CR>	0..4	Optional parameters
5	Quantity	Inscription	<CR>	0..16	
6	Control bite	00..FF		2	
7		<ESC>\		2	

Where:

Amount

deposit amount (for taken packages),

Package No

package number. In the current version a number from the range 1..127:
- the printer always prints the text „Returnable package No",
- if the „Package No" parameter was not provided, the following number is printed, increased after each approval of the sequence,

Quantity

the quantity of the package. The printer separates from the sent sequence the numeric value, which is then printed,
- if it appears than the information about quantity and price per package (calculated as price = Amount / quantity) are provided on the receipt,
if it does not appear the printer assumes that quantity = 1 and price = Amount.

Errors' codes:

2: control byte error,
4: parameter error,
9: I/O operation error,
17: wrong quantity signification (too long) or exceeded number of packages (max 32) or range exceeded for Package No = 1.. 127,
19: error in amount value (syntax, range or none),
21: sequence received by the printer at transaction mode set off

3.6.8. Cancelling the transaction.

No	Field name	Content	Separator	Size	Remarks

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	0		1	
3	Command	**$e**		2	
4	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in.
5	Cashier	Inscription	<CR>	0..32	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:

> **Cash register number**
> Inscription including cash register number,
> **Cashier**
> Inscription including cashier's name,

Remarks:

If the sequence prior to the described sequence was the beginning of transaction than the only effect is reset of the PAR bit.

3.6.9. Standard transaction approval.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Action	0..1	;	1	0 – cancelling, 1 – approving
3	Discount	0..99		0..2	Optional
3	Command	**$e**		2	
4	Code	Inscription	<CR>	0..8	
5	Payment	Number	/	1..10	
6	Total	Number	/	1..10	
7	Control byte	00..FF		2	
8		<ESC>\		2	

or

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Action	0..1	;	1	0 – cancelling, 1 – approving
3	Discount	0..99	;	0..2	Optional
4	Quantity of lines	0..3	;	1	Quantity of additional lines at the foot note
5	Ending	0..2		1	Way of ending the receipt
6	Command	**$e**		2	
7	Code	Inscription	<CR>	0..8	
8	Line No 1	Inscription	<CR>	0..	Quantity of these parameters is as it was fixed in field No 4 (Quantity of lines). Compare configuration of the printer
9	Line No 2	Inscription	<CR>	0..	
10	Line No 3	Inscription	<CR>	0..	
11	Payment	Number	/	1..10	
12	Total	Number	/	1..10	
13	Control byte	00..FF		2	

No	Field name	Content	Separator	Size	Remarks
14		<ESC>\		2	

or

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Action	0..1	;	1	0 – cancelling, 1 – approving
3	Discount	0..99	;	0..2	Optional
4	Quantity of lines	0..3	;	1	Quantity of additional lines at the foot note
5	Ending	0..2	;	1	Way of ending the receipt
6	Kind of discount	0..2	;	1	
7	Constant value	1		1	
8	Command	**$e**		2	
9	Code	Inscription	<CR>	0..8	
10	Line No 1	Inscription	<CR>	0..	Quantity of these parameters is as it was fixed in field No 4 (Quantity of lines). Compare configuration of the printer
11	Line No 2	Inscription	<CR>	0..	
12	Line No 3	Inscription	<CR>	0..	
13	Payment	Number	/	1..10	
14	Total	Number	/	1..10	
15	Discount value	Number	/	1..5	
15	Control byte	00..FF		2	
16		<ESC>\		2	

3 variants of „positive" approval of the transaction.

<u>Where:</u>

Action
  0: canceling the receipt,
  1: positive compliance of the transaction,
Discount
  optional percentage discount for the whole transaction. This parameter is ignored when the discount is defined by **Kind of discount** and **Value of discount** fields
Quantity of lines
  quantity of additional lines localized at the foot note of the receipt, after the fiscal logo, access to which is possessed by the application,
Ending
  Value of the parameter is ignored. They appear in order to keep compatibility with POSNET printers.
Kind of discount
  0: none,
  1: percentage discount,
  2: percentage overhead,
Code
  cash register code (1 character) + cashier's code (2 characters), the field is ignored if cashier's log-in took place earlier.
Line No 1...Line No 3
  Content of additional lines.
Payment
  Amount paid by the customer, when = 0 than inscriptions „payment/ rest" will not be printed,
Total
  total charge for the customer, for control of the previous transfers,
Discount value
  discount or percentage overhead for the whole transaction, the rate is fixed at the accuracy to 0.01 if the kind of discount parameter ≠ 0,

<u>Errors' codes:</u>

  1: printer's clock not initiated,

2: control byte error,
4: parameter error (Action, Discount, Quantity of lines, Ending or Kind of discount),
5: error of operation with printer's clock,
6: error of operation on fiscal memory,
23: wrong number of records (lines) of receipt,
24: overfilling the buffer of receipt printer,
25: wrong terminal/ cashier code (wrong length or format) or wrong content of additional lines,
26: wrong amount of Payment (syntax; if the difference Payment - Total $\leq$ 0 than 'cash', 'rest' inscriptions will not be printed),
27: wrong total sum Total or wrong Discount amount,
28: overfilling the totalizer (max 99 999 999,99 for one tax group),
29: demand for (positive) finishing the transaction mode when it has not been set on yet,

<u>Remarks:</u>

1. If the kind of discount parameter $\neq$ 0 than the value of discount parameter is ignored.
2. The printer prints these lines depending on configuration fixes in Administration Mode (see configuration of the work of the printers – Administration mode).

3.6.10. Approval of transaction with forms of payment (1).

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of lines	0..5	;	1	
3	Ending	0..2	;	1	
4	Ignored	0..255	;	1	
5	Kind of discount	0..2	;	1	
6	Payment flag	0..1	;	1	
7	Card flag	0..1	;	1	
8	Cheque flag	0..1	;	1	
9	voucher flag	0..1	;	1	
10	Receive flag	0..1	;	1	
11	Giving back flag	0..1	;	1	
12	Rest flag	0..1		1	
13	Command	$x		2	
14	Code	Inscription	<CR>	0..3	
15	Line No 1	Inscription	<CR>	0..40	
16	Line No 2	Inscription	<CR>	0..40	
17	Line No 3	Inscription	<CR>	0..40	
18	Line No 4	Inscription	<CR>	0..40	
19	Line No 5	Inscription	<CR>	0..40	
21	Name of card	Inscription	<CR>	0..16	
22	Name of cheque	Inscription	<CR>	0..16	
23	Name of voucher	Inscription	<CR>	0..16	
24	Total	Number	/	1..10	
25	Discount	Number	/	1..10	
26	Payment	Number	/	1..10	
27	Card	Number	/	1..10	
28	Cheque	Number	/	1..10	
29	voucher	Number	/	1..10	
30	Receive	Number	/	1..10	
31	Giving back	Number	/	1..10	

32	Rest	Number	/	1..10	
33	Control byte	00..FF		2	
34		<ESC>\		2	

Where:

Quantity of lines
  quantity of additional lines localized at the foot note of receipt, after the fiscal logo, access to which is possessed by application = 0...5
  ATTENTION! Printers can serve this command with 3 additional lines if they have POSNET protocol fixed (see Remarks)

Ending
   Parameter value is ignored. It appears in order to keep compatibility with POSNET printers.
Ignored
  ignored parameter,
Kind of discount
  0: none,
  1: percentage discount,
  2: percentage overhead,
Payment flag
  0: payment amount is ignored (payment in cash does not take place),
  1: payment in cash takes place,
Card flag
  0: card amount is ignored (payment by card does not take place),
  1: payment by card takes place,
Cheque flag
  0: cheque amount is ignored (payment by cheque does not take place),
  1: payment by cheque takes place,
v**oucher flag**
  0: voucher amount is ignored (payment by voucher does not take place),
  1: payment by voucher takes place,
Receive flag
  0: receive amount is ignored (printer calculates proper value),
  1: printer receives the sent value,
Giving back flag
  0: the amount given back is ignored (printer calculates proper value),
  1: printer receives the sent value,
Rest flag
  0: rest amount is ignored (printer calculates proper value),
  1: printer receives the sent value,
Total
  total charge for the customer, for control of the proper transfers (this value is controlled by the printer),
Discount
  amount or percent discount for the while transaction, amount or rate fixed with an accuracy at up to
  0.01 if the kind of discount parameter $\neq$ 0,
Payment
  amount paid by the customer,
Card, Cheque, Voucher
  amounts for proper forms of payment,
Receive
  amount of the deposit for return package, increasing the charge amount (i.e. decreasing the sum of forms of payment),
Giving back
  The amount of deposit for returned returnable package, decreasing the charge amount (i.e. increasing the sum of forms of payment),
Line No 1...Line No 5
Content of additional lines,
Name of card, Name of cheque, Name of voucher
  additional signification of forms of payment
Code
cash register code (1 character) + cashier's code (2 characters), the field is ignored if cashier's log-in took place earlier

Errors' codes:
  1: printer's clock not initiated,

2: control byte error,
4: parameter error (Quantity of lines, Ending or Kind of discount),
5: error in operation on printer's clock,
6: error in operation on fiscal memory,
23: wrong number of records (lines) of receipt,
24: overfilling of printer's buffer,
25: wrong terminal/ cashier's code (wrong length or format) or wrong content of additional lines,
26: error of one of amounts Pay in/Change
27: wrong total sum Total or wrong Discount amount,
28: overfilling of the totalizer,
29: demand for (positive) finishing transaction mode when it was not set on yet,
83: wrong deposit value.

<u>Remarks:</u>

1. This command can have two forms, depending on fixed protocol of printer's transmission:
   a. NOVITUS – the quantity of additional lines is 5, all fields have to appear even if they are ignored. Such version is compatible with previous versions of protocol of POSNET printers. New fiscal regulations limited this command in the way of limitation of quantity of additional lines which is 3. To remain compatible with the existing software, the printer accepts command in the old form (5 lines) ignoring possible lines 4 and 5. Additionally the printer can „catch" from this lines the Transaction System No and locate it in a special field on the printout of receipt ending (see Fixes of printers' protocol).
   b. POSNET – the quantity of additional lines is maximally 3, only the required fields appear (proper parameters > 0). This version of command was introduced by POSNET in accordance with new fiscal regulations but unfortunately it is not compatible with the existing software.

3.6.11. Handling the forms of payments.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Action	1..2	;	1	
3	Type of payment	0..5		1	
4	Command	**$b**		2	
5	Amount	Number	/	1..10	
6	Name	Inscription	<CR>	0..15	
7	Control byte	00..FF		2	
8		<ESC>\		2	

<u>Where:</u>

Action
1: Amount causes registration of the form of payment, increasing the sum of additional payments in the given type of payments.
2: Amount causes cancellation of the form of payment, decreasing the sum of additional payments in the given type of payments.
Type of payment
0: CASH,
1: CARD,
2: CHEQUE,
3: VOUCHER,
4: OTHER,
5: CREDIT,
6: CUSTOMER'S ACCOUNT,
7: CURRENCY (NOVITUS protocol), VOUCHER (Posnet protocol)
8: TRANSFER
Name
name of the form of payment,
Amount
Amount of the form of payment.

<u>Errors' codes:</u>

1: printer's clock not initiated,
2: control byte error,
4: parameter error (Action or Type of payment),
5: error in operation on printer's clock,
6: error in operation on fiscal memory,
19: error in code value (syntax, range or none),
22: cancellation error (Action = 2) of the form of payment (the declared „cancellation" amount is higher than the so-long-existing amounts sent from Action = 1),
26: the limit of maximal quantity of payment forms of payment was exceeded (16).

3.6.12. Approval of transaction with forms of payment (2).

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of lines	0..3	;	1	
3	Ending	0..3	;	1	
4	Summary	0..1	;	1	
5	DSP Sign	0..1	;	1	
6	Kind of discount	0..4	;	1	
7	Quantity of received deposits	0..32	;	1..2	
8	Quantity of deposits given back	0..32	;	1..2	
9	System number flag	0..1	;	1	
10	Quantity of payment forms	0..16	;	1	
11	Rest flag	0..1	;	1	
12	Payment flag	0..1	;	1	
13	Type of payment No ...	1..5	;	1	Quantity of these parameters is as it was in field 10 (Quantity of forms of payment).
14	Command	**$y**		2	
15	Cash register number	Inscription	<CR>	0..8	
16	Cashier	Inscription	<CR>	0..32	
17	System number	Inscription (digits)	<CR>	1..10	The fiscal printers Vivo/Quarto/Delio have possibility of use text built of 40 characters, alphanumerical in that field . In case of Vento the text can contain max. 25 characters. Warning ! For keeping compatibility with other printers it's recommended not to exceed parameters given in the packet definition.
18	Line No ...	Inscription	<CR>	0..40	Quantity of these parameters is as it was in field 2 (Quantity of lines). Compare configuration of the printer.
19	Name of form of payment No ...	Inscription	<CR>	0..16	Quantity of these parameters is as it was in field 10 (Quantity of forms of payment).
20	Number of received deposits ...	Inscription	<CR>	1..4	Quantity of these parameters is as it was in field 7 (Quantity of received securities)
21	Quantity of received	Inscription	<CR>	1..16	Quantity of these parameters is

	deposits ...				as it was in field 7 (Quantity of received securities)
22	Number of deposits given back ...	Inscription	<CR>	1..4	Quantity of these parameters is as it was in field 8 (quantity of deposit given back)
23	Quantity of deposits given back ...	Inscription	<CR>	1..16	Quantity of these parameters is the same as it was fixed in field No 8 (quantity of deposit given back)
24	Total	Number	/	1..10	
25	DSP	Number	/	1..10	
26	Discount	Number	/	1..10	
27	Payment	Number	/	1..10	
28	Amount of form of payment No ...	Number	/	1..10	Quantity of these parameters is as it was in field 10 (Quantity of forms of payment).
29	Rest	Number	/	1..10	
30	Amount of received deposit ...	Number	/	1..10	Quantity of these parameters is as it was in field 7 (Quantity of received securities)
31	Amount of deposit given back ...	Number	/	1..10	Quantity of these parameters is as it was in field 8 (quantity of securities given back)
32	Control byte	00..FF		2	
33		<ESC>\		2	

Where:

Quantity of lines
quantity of additional lines localized at the foot note of the receipt, after the fiscal logo, access to which is possessed by application 0...3, these lines are printed in the nearest daily report; between daily reports, one set of additional lines may be sent which will be printed while all other sets of lines will be ignored,

Ending
Parameter value other than 3 is ignored. When the parameter is 3 than:
- if, during the transaction, receives of the deposit were sent, 1 received deposit shall be sent
  - name and quantity – empty inscriptions (only <CR> separators)
  - the sum of all received securities sent in the transaction shall be sent as the deposit amount
- if, during the transaction, returns of the deposit were sent, 1 returned deposit shall be sent
  - name and quantity – empty inscriptions (only <CR> separators)
  - the sum of returned securities sent in the transaction shall be sent as the deposit amount
- if, during the transaction, forms of payment were sent, the amount of Payment shall be sent
  - as the amount of Payment there shall be sent the sum of all forms of payment sent in transaction
- if the discount/ overhead was sent during the transaction, the discount/ overhead sent in command $y has to correspond with discount/ overhead sent in command $y
- do not send lines 1, 2, 3
- do not send forms of payment

After such modification, command $y shall not be longer than 200 bytes**.**

Summary
1: if it is only possible in one group, print the shortened summary,

DSP Sign
1: Negative DSP amount,
The parameter value is ignored. It appears in order to keep compatibility with POSNET printers.

Kind of discount:
0: none,
1: percentage discount,
2: percentage overhead,
3: amount discount,
4: amount overhead,

Quantity of received deposits
0: „Received deposits" block does not exist,
1..n: „Received deposits" block is printed and includes 1.. n lines + title,

Quantity of returned deposits

0: „Returned deposits" block does not exist,

1..n: „Returned deposits" block is printed and includes 1.. n lines + title,

System number flag

1: A System number sequence appears,

0: A System number sequence does not appear

Quantity of payment forms

0: there are no forms of payment, the block of names forms of payment does not appear,

1..n: the parameters of type of payment appear, determining various kinds of payments, the block of names of forms of payments appears,

Change flag

0: change amount is ignored,

1: change amount is printed,

Payment flag

0: payment amount is ignored (payment of cash does not take place),

1: payment of cash takes place,

Type of payment

1: the amount of payment by a card is printed,

2: the amount of payment by a cheque is printed,

3: the amount of payment by a bond is printed,,

4: the amount of payment in other form is printed,,

5: the amount of payment by a credit is printed,,

6: the amount of payment from customer's account is printed,

7: the amount of payment by foreign currency (or *voucher in case of POSTNET protocol) is printed,

8: the amount of payment by a transfer is printed

Cash register number

name of the cash register,

Cashier

name of the cashier,

Line

Content of additional lines,

System number

system number of the transaction (digits only),

cyfry numeru systemowego poprzedzone znakiem '#' drukowane są jako kod kreskowy (dotyczy drukarek: Delio)

Name of the form of payment

additional signification of forms of payment

Number of received deposits, Number of returned deposits

number of secured package,

Total

total charge from the customer, for the control of the previous transfers – this value is controlled by the printer. Total amount is the sum of all receipt lines, corrected by the amount or value of discount/ overhead (value / discount amount / overhead declared in the ending has no influence on any of the values sent in this sequence and will be calculated by the printer – the similar situation is in the sequence of receipt line).

DSP

Parameter value is ignored. It appears in order to keep compatibility with POSNET printers.

Discount

Amount or percentage discount for the whole transaction, amount or rate is fixed at an accuracy up to 0.01 if the kind of discount parameter $\neq 0$,

Payment

payment in cash. The Payment field would be equal to DSP in case if the DSP value was positive. In other case, the Payment field shows zero. If there were no forms of payment, the payment field has to be calculated (the required parameter Payment flag = 0); the printer will do it instead of us.

Forms of payment amount

Amounts for proper forms of payment (now in case if the quantity of forms of payment $\neq 0$),

Change

payment in cash. The Change field would be equal to DSP in case if the DSP value was negative, but this field can always be automatically calculated by the printer (Change flag = 0) and its service is not required, unless for controlling reasons.

Received deposit amount

Amount of the deposit for returnable packages taken by the customer (in case that the quantity of received securities $\neq 0$),

Returned deposit amount

Amount of the deposit for returnable packages returned by the customer (in case that the quantity of returned securities $\neq 0$),,

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error,
5: error in operation on printer's clock,
6: error of operation on fiscal memory,
23: wrong number of records (lines) of receipt,
24: overfilling of printer's buffer,
25: wrong terminal/ cashier's code (wrong length or format) or wrong content of additional lines,
26: error of one of amounts pay in/change
27: wrong total sum Total or wrong Discount amount,
28: overfilling of the totalizer,
29: demand for (positive) finishing transaction mode when it was not set on yet,

<u>Remarks:</u>

- 1. Received deposits, returned deposits, forms of payment can be used in two forms. In connection with the sequences of turnover of packages, forms of payment sent during realization of transactions, thanks to what values and texts on the display change currently, together with the actual packages or finalization of transactions with the appliance of various forms of payment.
- Received and returned deposits, forms of payment are declared only in receipt ending sequence. Values of deposits and packages sent in the ending „overwrite" the values sent during realization of the transaction (the last ones are ignored then).

3. The following fields:
- lines 1..3,
- names of forms of payment,
- numbers of received deposits,
- quantity of received deposits,
- numbers of returned deposits,
- quantity of returned deposits,
- amounts of forms of payments,
- amounts of received deposits,
- amounts of returned deposits,

do not appear in the sequence at all (their terminators do not appear there either) if the value of byte parameter corresponding with them is zero.
Other fields :
- system number,
- discount,
- payment,
- change,

have to appear, even if the byte parameters corresponding to them is 0. Values included in these fields will be ignored by the printer.

3.6.13. Discount / overhead during transaction.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind	0..4		1	
3	Command	**$n**		2	
4	Name	Inscription	<CR>	0..20	
5	Value	Number	/		Percent or quota of discount
6	Control byte	00..FF		2	
7		<ESC>\		2	

<u>Where:</u>

Kind
0: no discount / overhead, canceling the previously provided discount / overhead and all forms of payment,
1: percentage discount
2: percentage overhead

3: amount discount
4: amount overhead

Errors' codes:

    1: RTC clock not initiated,
    4: parameter error,
    21 : transaction mode set off or turnover of securities only,
    26 : error in discount value,
    82 : discount/ overhead already sent previously.

Remarks:

    1. Command should be sent in the transaction before command $b and before command $y.

3.6.14. Discount / overhead for a group of goods in a given VAT rate.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Number of rate	0..6	;	1	
3	Kind of discount	0..4	;	1	
4	Number of description	0..16 or none		0..2	Optional parameter
5	Command	**$L**		2	
6	Sale	Number	/	1..10	
7	Discount	Number	/	1..10	
8	Description of discount	Inscription	<CR>	0..20	Optional argument
9	Control byte	00..FF		2	
10		<ESC>\		2	

Where:

Number of VAT rate
  0: A
  1: B
  2: C
  3: D
  4: E
  5: F
  6: G
Kind of discount
  1: percentage discount
  2: percentage overhead
  3: amount discount
  4: amount overhead
Number of description
  0:    no description
  1:    „special"
  2:    „occasional"
  3:    „opportunity"
  4:    „holiday",
  5:    „permanent customer",
  6:    „anniversary",
  7:    „birthday",
  8:    „for the employee",
  9:    „promotion",
  10:   „gift",
  11:   „sale",
  12:   „re-pricing",
  13:   „seasonable",

14: "night"
15: "service"
16: defined by the user
Sale
The value of the sale in a rate defined before discount/ overhead
Discount value
Value of discount/ overhead
Discount description
Name of discount/ overhead

Errors' codes:

1: RTC clock not initiated,
4: parameter error,
21 : transaction mode set off or turnover of deposits only,
26 : error in discount value,
82 : discount/ overhead already sent previously.

Remarks:

The sequence leads to printing information about providing a discount/ overhead to the sub-total as well decreasing/ increasing the totalizer in the specified rate. Discount cannot lead to empty totalizers.

3.6.15. Discount / overhead to the sub-total receipt.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of discount	0..4	;	1	
3	Number of description	0..16 or none		0..2	Optional parameter
4	Command	**$Y**		2	
5	Sub-total	Number	/	1..10	
6	Discount	Number	/	1..10	
7	Description of discount	Inscription	<CR>	0..20	Optional argument
8	Control byte	00..FF		2	
9		<ESC>\		2	

Where:

Kind of discount
1: percentage discount
2: percentage overhead
3: amount discount
4: amount overhead
Number of description

0.   no description
1.   „special"
2.   „occasional"
3.   „opportunity"
4.   „holiday",
5.   „permanent customer",
6.   „anniversary",
7.   „birthday",
8.   „for the employee",
9.   „promotion",
10. „gift",
11. „sale",
12. „re-pricing",
13. „seasonable",
14. "night"

15. "service"
16. defined by the user

Sub-total
Value of the sale without deposit before discount / overhead
Discount value
Percentage value of discount/ overhead
Discount description
Name of discount/ overhead

<u>Errors' codes:</u>

1: RTC clock not initiated,
4: parameter error,
21 : transaction mode set off or turnover of securities only,
26 : error in discount value,
82 : discount/ overhead already sent previously.

<u>Remarks:</u>

The sequence leads to printing information about providing a discount/ overhead to the sub-total as well decreasing/ increasing the totalizer in the specified rate. Discount cannot lead to resetting of totalizers.

3.6.16. Additional lines on the receipt after the fiscal logo.

This command may be used only when the command <u>approval of the transaction with the forms of payment (2)</u> was applied to finish this program with a parameter End = 3.

3.6.16.1. Lines of packages' returns.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	4		1	
3	Command	**$z**		2	
4	Name of package	0..65535 or none	<CR>	0..5	Optional arguments.
5	Quantity	Inscription or none	<CR>	0..8	
6	Amount	Number	/	1..10	
7	Control byte	00..FF		2	
8		<ESC>\		2	

<u>Where:</u>

Name of packaging
Number of packaging (number from the area 0...65535),
Quantity
inscription including quantity of returned packages. The quantity is subjected to identical limitations with the quantity of commodities sent in the receipt line,

<u>Errors' codes:</u>

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error,
82: prohibited command in transaction with $z,
83: the quantity of the amount for package is wrong.

<u>Remarks:</u>

1. A line is printed: return of a package

return of a package <Name of a package> amount

2. The command can be repeated many times.
3. The amount has to correspond with the amount of packages sent in the transaction. In case of a trial to exceed the amount an error will be reported and in case of too low amount a line will be printed:

   Returnable package 1x Remained amount   Remained amount

4. The command has to be sent after command $y.

3.6.16.2. Lines of packages' receives.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	4		1	
3	Command	**$z**		2	
4	Name of package	0..65535 or none	<CR>	0..5	Optional arguments.
5	Quantity	Inscription or none	<CR>	0..8	
6	Amount	Number	/	1..10	
7	Control byte	00..FF		2	
8		<ESC>\		2	

Where:

Name of packaging
Number of packaging (number from the area 0...65535),
Quantity
inscription including quantity of received packages. The quantity is subjected to identical limitations with the quantity of commodities sent in the receipt line,

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error,
82: prohibited command in transaction with $z,
83: the quantity of the amount for package is wrong.

Remarks:

1. A line is printed: receive of a package

   return of a package <Name of a package> Amount
2. The command can be repeated many times.
3. The amount has to correspond with the amount of packages sent in the transaction. In case of a trial to exceed the amount an error will be reported and in case of too low amount a line will be printed:

   Returnable package 1x Remained amount   Remained amount

4. The command has to be sent after command $y.

3.6.16.3. Forms of payment settlement.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	12		2	
3	Command	**$z**		2	

4	Control byte	00..FF		2	
5		<ESC>\		2	

<u>Errors' codes:</u>

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error,
82: prohibited command in transaction with $z,

<u>Remarks:</u>

1. Forms of payment from the data collected during transaction are printed as well as the rest amount.
2. The command has to be sent after $y command.
3. During transaction should be sent forms of payment using $b sequence.
4. In $y sequence shouldn't be sent forms of payment.

3.6.16.4. Lines of additional receipt foot notes.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	20	;	2	
3	Kind of foot note	0..25			
4	Command	**$z**		2	
5	Text	Inscription	<CR>	0..25	
6	Control byte	00..FF		2	
7		<ESC>\		2	

<u>Where</u>

Kind of foot note
0.	Transaction No	numeric argument
1.	Points	numeric argument
2.	Sum of points	numeric argument
3.	Register No	numeric argument
4.	Name	letter argument
5.	Card	letter argument
6.	Card number	numeric argument
7.	Valid until	numeric argument
8.	Cashier	numeric argument
9.	Cashier's name	letter argument
10.	Pre-pay	numeric argument
11.	Currency	letter argument
12.	Calculator	numeric argument
13.	Order No	numeric argument
14.	Employee No	numeric argument
15.	Employee's name	letter argument
16.	Account before transfer	numeric argument
17.	Provided	numeric argument
18.	Used	numeric argument
19.	Account after transfer	numeric argument
20.	Permanent customer	numeric argument
21.	Voucher	numeric argument
22.	Voucher value	numeric argument
23.	Voucher payment	numeric argument
24.	Inscription predefined in RAM	without argument

All digits are turned into spaces, the line, in case of its usage is printed after the daily report.

25.	Line without a key word (15 spaces)	numeric argument

Operating by printers: Deon 2.00, Bono, Delio E 3.10, Delio Apteka E 3.10

26.	number of sold goods	numeric argument
27.	employee's number	numeric argument
28.	customer's number	numeric argument
29.	total given discounts	numeric argument
30.	number	alphanumeric argument
31.	code	alphanumeric argument
32.	name	alphanumeric argument
33.	description	alphanumeric argument
34.	amount	alphanumeric argument
35.	customer	alphanumeric argument
36.	quota	alphanumeric argument

Operating by printers: Vega Mobil, Delio E 3.10

80.	ticket number	numeric argument
81.	issued in cash box	letter argument
82.	from	letter argument
83.	to	letter argument
84.	by	letter argument
85.	class	numeric argument
86.	departure on day	numeric argument
87.	back on	numeric argument
88.	validity period	numeric argument
89.	valid to	numeric argument
90.	valid for train	letter argument
91.	THERE valid to	numeric argument
92.	BACK valid to	numeric argument
93.	Km	numeric argument
94.	ticket type	letter argument
95.	base	numeric argument
96.	reduction	numeric argument
97.	amount of persons	numeric argument
98.	Tariff	numeric argument
99.	DESTINATION PORT	numeric argument
100.	TRANSIT PORT	numeric argument
101.	no. of boarding pass	numeric argument
102.	no. of flight	numeric argument
103.	no. of ticket	numeric argument

Operated by printers: pharmacy printers

120.	rebate	numeric argument
121.	to pay after rebate	numeric argument
122.	customer	numeric argument
123.	bonus	numeric argument
124.	premium	numeric argument

Operated by printers: with invoices operating function

130.	excise	numeric argument
131.	information about invoice	letter argument
132.	account number	numeric argument
133.	bank name	numeric argument
134.	added Vita points	numeric argument

Operated by printers: Delio E 4.00

140.	NIP number	numeric argument
141.	REGON number	numeric argument
142.	PESEL number	numeric argument
143.	Program	alphanumeric argument
144.	customer	alphanumeric argument
145.	access	alphanumeric argument
146.	club	alphanumeric argument
147.	<empty line>	no argument
148.	PKT	numeric argument
149.	CODE	numeric argument
150.	Program no	numeric argument
151.	ticket	letter argument

152. car wash   letter argument
153. WWW   alphanumeric argument
154. buyer's NIP no.   numeric argument
155. buyer's REGON no   numeric argument
156. buyer's PESEL no.   numeric argument
157. CLUB   alphanumeric argument
158. VITAY card no.   alphanumeric argument
159. added points   numeric argument

Text

25-characters (maximally) inscription sent from application,

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error,
84: exceeded number of sent lines of predefined inscription of various content. The sum of the sent predefined inscriptions and additional information lines must not exceed 25 between two daily reports.

Remarks:

1. On one receipt can be printed 20 additional lines.
2. Numeric parameters can include maximally 3 digits (exceeding ones will be changed to spaces).
3. Letter parameters can include maximally 3 digits (exceeding ones will be changed to spaces).
4. The command has to be sent after $y command.

3.6.16.5. Information lines – definition.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	24	;	2	
3	Quantity of lines	0..3			
4	Command	**$z**		2	
5	Line No 1	Inscription	<CR>	0..48	Quantity of these arguments is the same as given in Quantity of lines parameter
6	Line No 2	Inscription	<CR>	0..48	
7	Line No 3	Inscription	<CR>	0..48	
8	Control byte	00..FF		2	
9		<ESC>\		2	

Where:

Quantity of lines
Quantity of defined lines – from 0 to 3

Line No 1, 2, 3
Texts of defined lines

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error

Remarks:

1. Information lines „We invite you to further visits" are printed.
2. It is possible to define only one set of information lines between daily reports.

3. Such defined information lines are printed after receiving the $z command ending the printout (described below).
4. The command has to be sent after the $y command.

3.6.16.6. Payment in EURO.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	99	;	2	
3	Amount of arguments	5		1	Amount of arguments sending with that packet. Warning! The field is required in case of using argument „Change in zł"
4	Command	**$z**		2	
5	€ currency	Number	<CR>	1..10	If zero value is given, payment in € will be cancelled
6	Receipt value in €	Number	<CR>	1..10	The value shall also include various returnable packages
7	Payment in €	Number	<CR>	1..10	
8	Change in €	Number	<CR>	1..10	
9	Change in PLN [zł]	Number	<CR>	1..10	
10	Control byte	00..FF		2	
11		<ESC>\		2	

Where:

€ currency, Receipt value in €, Payment in €, Rest in €, Rest in PLN [zł]
Numeric values

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error

Remarks:

The command is sent in transaction mode.
Text including € currency is printed after the „€:currency" label
The receipt value in € currency is printed after the label „To be paid" and is preceded by the € symbol
Payment in € is printed after the label „Cash:„and is preceded by the € symbol
Rest in € is printed after the label „Rest:„ and is preceded by the € symbol
Rest in PLN [zł] is printed after the label „Rest:„
The command has to be sent before the $y command.
On the displays, the amounts in € are precede by the text „EUR" (on the customer's display only if it is an LCD display). Additionally, the amount in € is blinking on customer's display.
There must „Amount of arguments" parameter appear as the second parameter, in order to the last argument (Change in zł) could be interpreted by the printer.

3.6.16.7. Buyer's ID .

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	100	;	2	
3	Type of buyer's ID number	0..3		1	1 – NIP 2 – REGON 3 – PESEL
4	Command	**$z**		2	

No	Field name	Content	Separator	Size	Remarks
5	Buyer's ID	text	<CR>	0..13	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Error code:

        2: control byte error ,

Remarks:
        Command should be sent after beginning or before ending the receipt.

3.6.16.8. Finishing the printout.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	28	;	2	
3	Ending	0..2		1	
4	Command	**$z**		2	
5	Control byte	00..FF		2	
6		<ESC>\		2	

Where:

Ending
   0: finishing the printing and finishing the transaction mode.
   1: as above
   2: printing a header for the new receipt.

Errors' codes:

        1: printer's clock not initiated,
        2: control byte error,
        4: parameter error
        5: printer's clock readout error,

Remarks:

1. After the $y command, command 28 ; ... $z can be sent, additionally causing printing the lacking elements i.e. deposits and/ or forms of payment.
2. Amounts of deposits sent in 4$z and 8$z must not exceed the amounts sent during transaction, but they may be lower.
3. The command has to be sent after the $y command.

3.7. Orders of printing invoices.

      Invoices are printed always in offline mode. The packets have very similar form to the receipts packets. Packets like „Receipt cancelling" are also used in invoices.

3.7.1. Packet of invoice beginning ($h).

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Amount of positions	0..255	;	1..3	
3	Amount of lines	0..3	;	1	For amount 0 – 3 lines (standard parameter). In other cases max. amount of lines = 5.
4	Constant	1	;	1	

No.	Field name	Content	Separator	Size	Remarks
5	Original/Copy	0..2	;	1	0 – there is no printout of lines with description, 1 – there is printout of lines with description, 2 – there are 2 documents printed, the both with additional description.
6	Upper margin (5 lines)	0..1	;	1	0 – there is no upper margin 1 – there is upper margin
7	Ignored parameter	-	;	1	
8	Amount of additional copies	0..9	;	1	
9	Ignored parameter	-	;	1	
10	Ignored parameter	-	;	1..3	
11	Space for signatures	0..1	;	1	0 – fields are printed - implicitly 1 – fields are not printed
16	Command	$h		2	
17	Invoice number	Number	<CR>	0..15	
18	Line no. 1	Inscription	<CR>	0..44	Amount of lines is such as described in field no 3 (amount of lines).
19	Line no. 2	Inscription	<CR>	0..44	Lines should contain data of invoice receiver.
20	Line no 3	Inscription	<CR>	0..44	
21	NIP (id tax number)	Number	<CR>	13	Additional accepted signs: '-' or '.'
22	Term of payment	Inscription	<CR>	16	(Optionally)
23	Form of payment	Inscription	<CR>	20	Name of payment forms. It's not allowed to use name OTHER / OTHERS. (Optionally)
24	Receiver	Inscription	<CR>	26	Receiver name (Optionally)
25	Issuer	Inscription	<CR>	26	Name of the issuer (Optionally)
26	System number	Inscription	<CR>	0..30	
27	Control byte	00..FF		2	
28		<ESC>\		2	

Where:

Amount of positions
Amount of sale positions = 0..255 – invoices are always printed in OFF-LINE mode
Amount of lines
Amount of additional lines placed in the receipt's footer, after fiscal logo, to which application has access
Line no. 1...Line no. 3
Content of additional lines.

Error's codes:

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error
6: error of operation with fiscal memory,
40: no header in RAM memory (only in fiscal mode),
94: blockade of sale because of installing a service cramp

3.7.2. Invoice's line ($l).

See chapter „Receipt's line".

3.7.3. Finishing the invoice ($e).

Each kind of receipt's finishing refers also to the invoice.

No.	Field name	Content	Separator	Size	Remarks

1		<ESC>P		2	
2	Action	0..1	;	1	0 – annulling, 1 – accepting
3	Discount	0..99	;	0..2	Optionally (parameter is ignored)
4	Amount of lines	0..3	;	1	Amount of additional lines in the footer
5	End	0..2	;	1	Way of transaction ending (parameter is ignored)
6	Discount type	0..2	;	1	(parameter is ignored)
7	Constant value	1	;	1	
8	Inscription „Paid"	0..1	;	1	0 – there is no line „Paid" printed 1 – there is line „Paid" printed
9	Options for buyer's name	0..2	;	1	0 – there is only information block printed 1 – there are buyer's name and information block printed 2 – no information about buyer (no information block and buyer's name)
10	Options for seller's name	0..2	;	1	0 – there is only information block printed 1 – there are seller's name and information block printed 2 – no information about the seller (no information block and seller's name)
11	Command	$e		2	
12	Code	Inscription	<CR>	0..8	
13	Line no. 1	Inscription	<CR>	0..	Amount of these parameters are like described in field no.4 (amount of lines)
14	Line no. 2	Inscription	<CR>	0..	
15	Line no. 3	Inscription	<CR>	0..	
16	Paid	Inscription	<CR>	1..29	
17	Buyer's name	Inscription	<CR>	1..40	
18	Seller's name	Inscription	<CR>	1..40	
19	Payment	Number	/	1..10	
20	Total	Number	/	1..10	
21	Discount value	Number	/	1..5	
22	Control byte	00..FF		2	
23		<ESC>\		2	

Where:

Action
  0: annulling receipt,
  1: positive transaction ending,
Discount
  Optionally percentage discount for the whole transaction. That parameter is ignored when discount is defined with fields **Discount type** and **Discount value**
Amount of lines
  Amount of additional lines placed in the receipt's footer after fiscal logo to which application has access,
Ending
  Parameter's value is ignored. It exists in purpose of keeping compatibility with POSNET fiscal printers.
Discount type
  0: no discount,
  1: percentage discount,
  2: percentage overhead,
Code
  Code of cash register (1 sign) + code of cashier (2 signs), the field is ignored if earlier was cashier's log-in.
Line no 1...Line no 3
  Content of additional lines.
Payment
  Amount paid by the customer, if = 0, than inscriptions „payment / change" will not be printed.
Total

Total charge for the customer, for controlling the previous transfers,

Discount value

Percentage discount or overhead for the whole transaction, the rate is required with accuracy to 0.01, if parameter Discount type ≠ 0,

<u>Error's codes:</u>

     1: printer's clock not initiated,

     2: control byte error,

     4: parameter error

     5: printer's clock readout error

     6: error of operation with fiscal memory,

     23: wrong amount of records (lines) of the receipt,

     24: overfilling of receipt's printer buffer,

     25: wrong code of terminal/ cashier (wrong length or format), or wrong content of additional lines,

     26: wrong amount of Payment (syntactic; if difference Payment - Total ≤ 0, than inscriptions 'cash', 'change' will not be printed),

     27: wrong total sum Total or wrong amount of Discount,

     28: overfilling of totalizer (max 99 999 999,99 for the single tax group),

     29: demand of (positive) ending of transaction mode, in moment when it wasn't switched on yet.

<u>Remarks:</u>

     <u>$y Ending with additional lines below receipt ($z) is operated by printers: Delio E 3.10, Bono E.</u>

3.7.4. Order of setting invoice options. (@c)

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Amount of additional copies	0..9	;	1	
3	Options for buyer's name	0..2	;	1	0 – there is only information block printed 1 – there are buyer's name and information block printed 2 – no information about buyer (no information block and buyer's name)
4	Option for seller's name	0..2	;	1	0 – there is only information block printed 1 – there are seller's name and information block printed 2 – no information about the seller (no information block and seller's name)
5	Inscription „Paid"	0..1	;	1	0 – there is no line „Paid" printed 1 – there is line „Paid" printed
6	Date of sale: Year	0..99	;	1..2	
7	Date of sale: Month	1..12	;	1..2	
8	Date of sale: Day	1..31	;	1..2	
9	Option of summary printout	0..255	;	1..3	0x01 – omit words description of amount to pay, 0x02 – omit block of gross amounts in tax accounting, 0x04 – bold label „**Buyer**", 0x08 – bold label „**Seller**", 0x10 – bold NIP no. of buyer, 0x20 – bold NIP no. of seller WARNING! Switching on the option means setting adequate byte and that resultant number is sent in decimal format.
10	Options of printout 2	0..255		1..3	0x01 – label printout **„description/symbol**" in the invoice header before invoice positions,

					0x02 – printout of position number in invoice's position, 0x04 – label **"to pay"** before block of tax accounting, 0x08 – printout of grosz amount in words format, 0x10 – do not print sale date if it is the same like date of issuing the invoice. WARNING! Switching on the option means setting adequate byte and that resultant number is sent in decimal format.
11	Type of buyer's Id number	0..2	;	1	0 – NIP number 1 – REGON number 2 – PESEL number
12	Options of printout 3	0..255		1..3	0x01 – do not print receiver's data, do not include field with nip number (regon number, pesel number)) 0x02 – print information „Paid by cash" 0x04 – omit label „Seller:" 0x08 – omit label „ORIGINAL" (operates only in case if there is no copy to print 0x10 – print label „VAT Invoice" (instead of label „INVOICE")
13	Command	**@c**		2	
14	Term of payment	Inscription	<CR>	0..16	(Optionally)
15	Form of payment	Inscription	<CR>	0..20	Name of payment form. Do not use OTHER/OTHERS name. (Optionally)
16	Receiver	Inscription	<CR>	0..26	Receiver's name (Optionally)
17	Issuer	Inscription	<CR>	0..26	Issuer's name (Optionally)
18	Paid	Inscription	<CR>	0..29	(Optionally)
19	System number	Inscription	<CR>	0..30	There can be used max. up to 10 letters, special signs and digits. (Optionally)
20	Control byte	00..FF		2	
21		<ESC>\		2	

Error's codes:

    1: printer's clock not initiated,
    2: control byte error,
    4: parameter error

3.7.5. Additional lines of invoice's footers. ($z)

The order should be sent after order of invoice beginning.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	20	;	2	
3	Footer type	0..131			
4	Command	**$z**		2	
5	Text	Inscription	<CR>	0..25	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:
    Footer type
    130:   Tax   numerical argument
    131:   Information about invoice   3 lines of text

In invoices can also be applied receipt's footers used in printing receipts.

<u>Error's codes:</u>

1: printer's clock not initiated,
2: control byte error,
4: parameter error
5: printer's clock readout error,
84: exceeded number of sent lines of predefined inscription of various content. The sum of the sent predefined inscriptions and additional information lines must not exceed 25 between two daily reports.

<u>Remarks:</u>

1. On one receipt can be printed 20 additional lines.
2. Numeric parameters can include maximally 3 digits (exceeding ones will be changed to spaces).
3. Letter parameters can include maximally 3 digits (exceeding ones will be changed to spaces).
4. The command has to be sent after $y command.
5. Operated in Delio E 3.10 and Bono E.

3.8. Orders of cash register and cashier's service.

3.8.1. Log-in the cashier.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Ignored	0..255 or none		1	
3	Command	**#p**		2	
4	Cashier	Inscription	<CR>	0..32	
5	Cash register number	Inscription	<CR>	0..8	
6	Control byte	00..FF		2	
7		<ESC>\		2	

<u>Where:</u>

Cashier
 inscription reserved to cashier's name and surname,
Cash register number
 inscription including the name of the cash register

<u>Errors' codes:</u>

1: printer's clock not initiated,
2: control byte error,
5: printer's clock readout error,
33: error in inscription of Cash register number (e.g. too long or including wrong characters),
34: error in inscription of Cashier.

3.8.2. Log-out the cashier.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Ignored	0..255 or none		1	
3	Command	**#q**		2	
4	Cashier	Inscription	<CR>	0..32	
5	Cash register number	Inscription	<CR>	0..8	
6	Control byte	00..FF		2	

7		<ESC>\		2	

Where:

   Cashier
   inscription reserved to cashier's name and surname,
   Cash register number
   inscription including the name of the cash register

Errors' codes:

   1: printer's clock not initiated,
   2: control byte error,
   5: printer's clock readout error,
   33: error in inscription of Cash register number (e.g. too long or including wrong characters),
   34: error in inscription of Cashier.

3.8.3. Payment to the cash.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Parameter	0..255 or none		0..3	If 99, payment in € currency
3	Command	**#i**		2	
4	Payment	Number	/	1..10	
5	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log- in..
6	Cashier	Inscription	<CR>	0..32	
7	Control byte	00..FF		2	
8		<ESC>\		2	

Where:

   Payment
   Amount paid into the cash register,
   Cash register number
   Inscription including cash register number,
   Cashier
   Inscription including cashier's name.

Errors' codes:

   1: printer's clock not initiated,
   2: control byte error,
   30: error in the amount of Payment (syntax),
   31: over-addition (exceeding the range of cash in the cash register).

3.8.4. Pay-out from the cash.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Parameter	0..255 or none		0..3	If 99, payment in € currency
3	Command	**#d**		2	
4	Pay-out	Number	/	1..10	
5	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in..
6	Cashier	Inscription	<CR>	0..32	
7	Control byte	00..FF		2	

| 8 | | <ESC>\ | | 2 | |

Pay-out
Amount paid from the cash register,
Cash register number
Inscription including cash register number,
Cashier
Inscription including cashier's name,

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
30: error in the amount of Payment (syntax),
32: value after deducting becomes negative (cash register zero level is assumed in such case).

3.8.5. Cash status.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Ignored		0..255 or none	1	
3	Command	**#t**		2	
4	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in...
5	Cashier	Inscription	<CR>	0..32	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:

Cash register number
Inscription including cash register number,
Cashier
Inscription including cashier's name,

Errors' codes:

1: printer's clock not initiated,
2: control byte error.

3.8.6. Printing the report of cash / shift.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of report	0..1		1	
3	Command	**#k**		2	
4	Shift	Inscription	<CR>	0..8	
5	Cashier	Inscription	<CR>	0..32	
6	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in...
7	Control byte	00..FF		2	
8		<ESC>\		2	

Where:

Form of report

0 (or none): resetting shift report,
1: non-resetting shift report,

Shift
 inscription including optional printable characters, corresponding to the numeric or alphanumeric
 description of the shift,

Cashier
 inscription reserved to the name and surname of the cashier,

Cash register number
 inscription including the name of the cash register

Errors' codes:

1: printer's clock not initiated,
2: control byte error,
5: printer's clock readout error,
33: error in inscription of Shift (e.g. too long or including wrong characters),
34: error in inscription of Cashier.

3.8.7. Printing the cash / shift report providing forms of payment (1).

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of cards	0..8	;	1	
3	Quantity of cheques	0..4	;	1	
4	Quantity of vouchers	0..4		1	
5	Command	**#f**		2	
6	Shift	Inscription	<CR>	1..10	
7	Cashier	Inscription	<CR>	0..15	
8	Name of card No ...	Inscription	<CR>	0..16	Quantity of these parameters is the same as it was fixed in field No 2 (Quantity of cards)
9	Name of cheque No ...	Inscription	<CR>	0..16	Quantity of these parameters is the same as it was fixed in field No 3 (Quantity of cheques). Attention! This field appears only if the printer has got POSNET protocol fixed
10	Name of voucher No ...	Inscription	<CR>	0..16	Quantity of these parameters is the same as it was fixed in field No 4 (Quantity of bonds)
11	Beginning	Inscription	<CR>	0..15	
12	End	Inscription	<CR>	0..15	
13	Income	Number	/	1..10	
14	Cash	Number	/	1..10	
15	Card No ...	Number	/	1..10	Quantity of these parameters is the same as it was fixed in field No 2 (Quantity of cards)
16	Cheque No ...	Number	/	1..10	Quantity of these parameters is the same as it was fixed in field No 3 (Quantity of cheques).
17	Voucher No ...	Number	/	1..10	Quantity of these parameters is the same as it was fixed in field No 4 (Quantity of bonds)
18	Payments	Number	/	1..10	
19	Receives	Number	/	1..10	
20	Pay-out	Number	/	1..10	
21	Returns	Number	/	1..10	

22	Cash register status	Number	/	1..10	
23	Quantity of receipts	Inscription	<CR>	1..5	
24	Quantity of cancelled	Inscription	<CR>	1..5	
25	Quantity of STORNO	Inscription	<CR>	1..5	
26	Cash register number	Inscription	<CR>	0..8	Optional parameter – replacing the one introduced during cashiers log-in...
27	Control byte	00..FF		2	
28		<ESC>\		2	

Where:

Quantity of cards
  quantity of various credit cards,
Quantity of cheques
  quantity of various cheques,
Quantity of vouchers
  quantity of various vouchers,
Shift
    inscription including optional printable characters, corresponding to the numeric or alphanumeric
    characterification of the shift,
Cashier
    inscription reserved to the name and surname of the cashier,
Name of the card, Name of the cheque, Name of the bond
  inscription parameters sent by an application fixing specified forms of payment,
    ATTENTION! The Field name **of the cheque** appears only for the POSNET (see Configuration the work of
  the printers – „Administration mode".). Additional information in REMARKS point.
Beginning, End
  parameters fixing the beginning and the end of the shift, usually in the format
  'yy-mm-dd hh:mm'
Income
  total sale during the shift,
Cash
  value of cash sale,
Card
  value of sale for specified paying cards,
Cheque
  value of sale for specified kinds of cheques,
Bon
  value of sale for various kinds of vouchers,
Payments
  sum of payments to the cash register during the shift,
Receives
  sum of securities received during the shift,
Pay-outs
  sum of pay-outs during the shift,
Returns
  sum of deposits returned during the shift,
Cash register status
  quantity of cash in the cash register after finishing the shift,
Quantity of receipts
  quantity of receipts printed during the shift,
Quantity of cancelled
  quantity of cancelled receipts,
Quantity of STORNO
  quantity of stormed positions,
Cash register number
  (optional), cash register number.

Errors' codes:

    1: RTC clock not initiated,
    2: control byte error,
    4: error of parameters,

5: error of RTC clock readout,

33: error of inscription of Shift or Cashier,

34: error of one of the amounts or the rest of the inscriptions.

<u>Remarks:</u>

1. This Command can have two forms, depending on the fixed protocol of printer's transmission:
    a. NOVITUS – the Field name of Cheque No does not appear, all fields have to appear. Such version is compatible with the previous versions of POSNET printers' protocol.
    b. POSNET – the Field name of Cheque No does not appear, not all fields have to appear (proper parameters > 0). Such version is not compatible with the previous versions of POSNET printers' protocol.

3.8.8. Printing the cash / shift report providing forms of payment (2).

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of received deposits	0..32	;	1..2	
3	Quantity of returned deposits	0..32	;	1..2	
4	Quantity of forms of payment	0..16	;	1	
5	Cash flag	0..1	;	1	
6	Type of payment No ...	1..5		1	Quantity of these parameters is the same as it was fixed in field No 4 (Quantity of forms of payment).
7	Command	**#m**		2	
8	Shift	Inscription	<CR>	0..8	
9	Cash register number	Inscription	<CR>	0..8	
10	Cashier	Inscription	<CR>	0..32	
11	Beginning	Inscription	<CR>	0..15	
12	End	Inscription	<CR>	0..15	
13	Name of forms of payment No ...	Inscription	<CR>	0..16	
14	Name of received deposit No ...	Inscription	<CR>	0..24	
15	Name of returned deposit No ...	Inscription	<CR>	0..24	
16	Income	Number	/	1..10	
17	Cash	Number	/	1..10	
18	Payments	Number	/	1..10	
19	Outcome	Number	/	1..10	
20	Pay-outs	Number	/	1..10	
21	Amount of forms of payment No ...	Number	/	1..10	Quantity of these parameters is the same as it was fixed in field No 4 (Quantity of forms of payment).
22	Received deposit	Number	/	1..10	
23	Amount of received deposit No ...	Number	/	1..10	Quantity of these parameters is the same as it was fixed in field No 2 (Quantity of received deposit)
24	Returned deposit	Number	/	1..10	
25	Amount of	Number	/	1..10	Quantity of these parameters is

	returned deposit No ...				the same as it was fixed in field No 3 (Quantity of returned deposit)
26	Cash register status	Number	/	1..10	
27	Quantity of receipts	Inscription	<CR>		
28	Quantity of cancelled	Inscription	<CR>		
29	Quantity of STORNO	Inscription	<CR>		
30	Control byte	00..FF		2	
31		<ESC>\		2	

Where:

Quantity of received deposits
0: The block RECEIVED DEPOSIT does not appear,
1..n: The block RECEIVED DEPOSIT is printed and includes 1.. n lines + title,
Quantity of received deposits
0: The block RETURNED DEPOSIT does not appear,
1..n: The block RETURNED DEPOSIT is printed and includes 1.. n lines + title,
Quantity of forms of payment
0: there are no forms of payment, the block of names of forms of payment does not appear,
1..n: The parameters of type of payment appear, determining the kind of forms of payment, the block of names of forms of payment appears,
Cash flag
0: Amount of Cash is ignored (payment of cash does not take place),
1: payment of cash takes place,
Type of payment
 According to NOVITUS 2001
1: the amount of payment by paying card is printed,
2: the amount of payment by a cheque is printed,
3: the amount of payment by a voucher-talon is printed,
4: the amount of payment in other form is printed,
5: the amount of payment by credit is printed,
6: the amount of payment from customer's account is printed
7: the amount of payment by foreign currency is printed
8: *[*] the amount of payment by transfer is printed
 According to POSNET 2001
1: the amount of payment by paying card is printed,
2: the amount of payment by a cheque is printed,
3: the amount of payment by a voucher-talon is printed,
4: the amount of payment in other form is printed,
5: the amount of payment by credit is printed,
6: the amount of payment from customer's account is printed
7: * the amount of payment by voucher is printed
8: * the amount of payment by transfer is printed
 Shift
inscription including optional printable characters, corresponding to the numeric or alphanumeric signification of the shift,
 Cash register number
cash register number,
 Cashier
inscription reserved to the name and surname of the cashier,
 Beginning, End
parameters fixing the beginning and the end of the shift, usually in the format
'yy-mm-dd hh:mm'
Name
additional significations of forms of payment (now if the quantity of forms of payment ≠ 0),
Name of the received deposit
name of the deposit package (now if the quantity of received securities ≠ 0),
Name of the returned deposit
name of the deposit package (now if the quantity of returned securities ≠ 0),
Income
total sale during the shift,

---

*[*] Type of payment appearing in QUARTO and DELIO PRIME printers

Cash
   value of cash sale,
Payments
   sum of payments to the cash register during the shift,
Outcomes
   cash spent on transactions,
Pay-outs
   sum of pay-outs from the cash register during the shift,
Amount of the form of payment
   amount for proper forms of payment (if the quantity of forms of payment (0),
Returned deposit
   accumulated amount for return of the deposit for returnable package,
Amount of the returned deposit
   amounts of deposits returned for specified returnable packages (apply if the quantity of returned securities (0),
Received deposit
   accumulated amount of received deposit for returnable package,
Amount of the received deposit
   amounts of deposits received for specified returnable packages (apply if the quantity of returned securities (0),
Cash register status
   quantity of cash in the cash register after the end of the shift,
Quantity of receipts
   quantity of receipts printed during the shift,
Quantity of cancelled
   quantity of cancelled receipts,
Quantity of STORNO
   quantity of stormed positions,

Errors' codes:

   1: RTC clock not initiated,
   2: control byte error,
   4: error of parameters (Pkr..Pkb),
   5: error of RTC clock readouts,
   33: error in inscription of Shift or Cashier,
   34: error of one of the amounts or other inscriptions.

Remarks:
1. In case that one or more parameters are lacking the presumable value is assumed to be = 0.
2. Parameter „Type of payment" can possess other values, depending on the type of protocol. In NOVITUS 2001 protocol, values determining the type correspond with values defining the type of payment in the commands of servicing the payment in the receipt and the end of receipt. In the POSNET 2001 protocol their values are moved at one number back (1 corresponds to 0).
3. In case of necessity of gaining wide reports, they can be divided partials information concerning:
   - only the forms of payment
   – only the service of sold deposit packages
   - only the service of returned deposit packages.

3.9. Orders of printing fiscal reports.

3.9.1. Printing daily report.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	#r		2	
3	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing the ones given by Cashier log-in
4	Cashier	Inscription	<CR>	0..32	
5	Control byte	00..FF		2	
6		<ESC>\		2	

or

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	0		1	
3	Command	**#r**		2	
4	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in.
5	Cashier	Inscription	<CR>	0..32	
6	Control byte	00..FF		2	
7		<ESC>\		2	

or

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	1	;	1	
3	Year	0..99	;	1..2	
4	Month	1..12	;	1..2	
5	Day	1..31		1..2	
6	Command	**#r**		2	
7	Cash register number	Inscription	<CR>	0..8	Optional parameters – replacing those introduced during cashiers log-in.
8	Cashier	Inscription	<CR>	0..32	
9	Control byte	00..FF		2	
10		<ESC>\		2	

Where:

Year
  number of year (two latest digits, 2000..2099),
Month
  number of month,
Day
  day,
Cash register number
  inscription including the name of the cash register
Cashier
  inscription reserved for the cashier's name,

Errors' codes:

1: RTC clock not initiated,
2: control byte error,
6: error in operation on fiscal memory (fatal),
7: date error (the one currently fixed is older than the date of the last record) or in the third format there is no correspondence in the printer with the sent date,
35: empty totalizers,
36: a record of that date already exists (if the totalizers are empty),
37: operation broken from the keyboard (prior to starting the printing)
1043: non recorded electronic copy – the memory was full with 2 daily reports and it waits for memory carrier in order to register.

Remarks:

1. The operation requires confirmation if the date was not given (first sequence).
2. In the variant with parameter = 1, a multiple record of the daily report of the same date is possible. Other characteristics of the sequence are not changed, especially if the date Year, Month, Day is conformable

with the printer's clock and the totalizers are not empty, the report will be obligatorily recorded without any message/ confirmation.

3. In case that the totalizers are empty and the daily report has already been recorded on that day, the printer reports error 36.
4. Making the daily report in devices with electronic copy can last a little longer. In that case standard TIMEOUT's assumed for device's response should be prolonged.
5. In devices with electronic copy without carrier of the memory, the device is capable of storing up to 2 daily reports in the pocket memory.

3.9.2. Printing periodical report.

Periodical report with the range determined by dates:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Year 1	0..99	;	1..2	
3	Month 1	1..12	;	1..2	
4	Day 1	1..31	;	1..2	
5	Year 2	0..99	;	1..2	
6	Month 2	1..12	;	1..2	
7	Day 2	1..31	;	1..2	
8	Kind of report	0..1, 6..7, 96..97		1	
9	Command	#o		2	
10	Cashier	Inscription	<CR>	0..32	Optional parameters – replacing those introduced during cashiers log-in.
11	Cash register number	Inscription	<CR>	0..8	
12	Control byte	00..FF		2	
13		<ESC>\		2	

Where:

Year 1, Month 1, Day 1
  primal date,
Year 2, Month 2, Day 2
  final date,
Kind of report
  0 (or none): full report (fiscal document) from the range of the given dates,
  1: sale's summary (non-fiscal document) from the range of the given dates,
  6: full monthly report (fiscal document),
  7: monthly sale's summary (non-fiscal document),
  96: full accounting report from the range of the given dates,
  97: summary of accounting report from the range of the given dates,
Cashier
  inscription reserved to the cashier's name and surname,
Cash register number
  inscription including the name of the cash register

Periodical report with the range determined by numbers.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of report	16..17, 96..97		2	
3	Command	#o		2	
4	Number 1	Number	/	1..10	
5	Number 2	Number	/	1..10	

6	Cashier	Inscription	\<CR\>	0..32	Optional parameters – replacing those introduced during cashiers log-in.
7	Cash register number	Inscription	\<CR\>	0..8	
8	Control byte	00..FF		2	
9		\<ESC\>\		2	

Where:

Kind of report
  16: full (fiscal document) from the range of the given numbers,
  17: sale's summary (non-fiscal document) from the range of the given numbers,
  96: accounting report from the range of the given numbers,
  97: summary of accounting report from the range of the given numbers,
  100: Non-fiscal report of fiscal memory read (parameters of No.1 and No. 2 are ignored)
Number 1
  start number,
Number 2
  end number,
Cashier
  inscription reserved to the cashier's name and surname,
Cash register number
  inscription including the name of the cash register

Errors' codes:

  1: RTC clock not initiated,
  2: control byte error,
  3: wrong quantity of parameters,
  4: error of parameters (values of the dates, also includes situations when the final date is earlier than the primal one, each of record in fiscal module for the given range of dates),
  6: error in operation on fiscal memory (fatal).

3.10. Orders of non-fiscal transactions.

3.10.1. Return of the package.

No	Field name	Content	Separator	Size	Remarks
1		\<ESC\>P		2	
2	Ignored	0..255 or none		1	
3	Command	**#w**		2	
4	Package	Inscription	\<CR\>	1..20	
5	Control byte	00..FF		2	
6		\<ESC\>\		2	

Where:

Package
  Inscription including the name and the value of the returned package,

Errors' codes:

  1: printer's clock not initiated,
  2: control byte error,
  5: printer's clock readout error,
  31: over-addition (exceeding the amount of cash in the cash register).
  33: error in package inscription.

3.10.2. Receipt of sale.

No	Field name	Content	Separator	Size	Remarks

1		<ESC>P		2	
2	Printing the number of the cash register and the cashier	0..1	;	1	
3	Way of printing	0..2		1	
4	Command	**#g**		2	
5	Cash register number	Inscription	<CR>	1..2	
6	Cashier's number	Inscription	<CR>	1..5	
7	Receipt number	Inscription	<CR>	1..12	
8	Customer	Inscription	<CR>	1..15	
9	Terminal	Inscription	<CR>	1..8	
10	Name of the card	Inscription	<CR>	1..16	
11	Number of the card	Inscription	<CR>	1..20	
12	Month	Inscription	<CR>	1..2	
13	Year	Inscription	<CR>	1..2	
14	Code of authorization	Inscription	<CR>	1..9	
15	Amount	Number	/	1..10	
16	Control byte	00..FF		2	
17		<ESC>\		2	

Where:

Printing the number of cash register and cashier
   0: line including cash register number / cashier's number is printed,
   1: the above mentioned line is not printed,
Way of printing
   0: print two copies, between the first and the second one a button has to be pushed,
   1: print two copies – one after another (useful in a version with a „non-cutting" cutter),
   2: print one copy,
Cash register number
   Inscription including cash register number,
Cashier's number
   Inscription including cashier's number,
Receipt number
   Inscription including receipt number, paid with the appliance of a credit card,
Customer
   Inscription including customer's name,
Terminal
   Inscription including terminal's name,
Name of the card
   Inscription including the name of the credit card,
Number of the card
   Inscription including the number of the credit card,
Month
   Inscription including the number of month in the year, determining the validity of the card,
Year
   Inscription including two last digits of the year of validity of the card,
Authorization code
   Inscription including authorization code,
Amount
   Amount paid by credit card,

Remarks:

1. As in other controlling sequences, the 'string' type parameters may include optional printed characters.

2. If the parameter 'Way of printing' = 0 or 1 than on the first document there is a description printed 'Original for the seller' while on the second one a description 'Copy for the purchaser'. The description is printed directly before the final inscription 'non-fiscal'.

<u>Errors' codes:</u>

1: RTC clock not initiated,
4: parameter error Ps,
2: control byte error,
5: RTC clock readout error,
41: error in inscription Cash register number (too long or including wrong characters),
42: error in inscription Cashier's number,
43: error in inscription Receipt number,
44: error in inscription the Customer,
45: error in inscription the Terminal,
46: error in inscription Name of the card,
47: error in inscription Number of the card,
48: error in inscription the Month,
49: error in inscription the Year,
50: error in inscription authorization Code,
51: error in Amount value.

3.10.3. Transaction of accepting (return of goods).

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Printing the number of the cash register and the cashier	0..1	;	1	
3	Way of printing	0..2		1	
4	Command	**#h**		2	
5	Cash register number	Inscription	<CR>	1..2	
6	Cashier's number	Inscription	<CR>	1..5	
7	Receipt number	Inscription	<CR>	1..12	
8	Customer	Inscription	<CR>	1..15	
9	Terminal	Inscription	<CR>	1..8	
10	Name of the card	Inscription	<CR>	1..16	
11	Number of the card	Inscription	<CR>	1..20	
12	Month	Inscription	<CR>	1..2	
13	Year	Inscription	<CR>	1..2	
14	Authorization code	Inscription	<CR>	1..9	
15	Amount	Number	/	1..10	
16	Control byte	00..FF		2	
17		<ESC>\		2	

<u>Where:</u>

Printing the number of cash register and cashier
0: line including cash register number / cashier's number is printed,
1: the above mentioned line is not printed,
Way of printing
0: print two copies, between the first and the second one a button has to be pushed,
1: print two copies – one after another (useful in a version with a „non-cutting" cutter),
2: print one copy,
Cash register number
Inscription including cash register number,

Cashier's number
  Inscription including cashier's number,
Receipt number
  Inscription including receipt number, paid with the appliance of a credit card,
Customer
  Inscription including customer's name,
Terminal
  Inscription including terminal's name,
Name of the card
  Inscription including the name of the credit card,
Number of the card
  Inscription including the number of the credit card,
Month
  Inscription including the number of month in the year, determining the validity of the card,
Year
  Inscription including two last digits of the year of validity of the card,
Authorization code
  Inscription including authorization code,
Amount
  Amount paid by credit card,

Remarks:

1. As in other controlling sequences, the 'string' type parameters may include optional printed characters.
2. If the parameter 'Way of printing' = 0 or 1 than on the first document there is a description printed 'Original for the salver' while on the second one a description 'Copy for the purchaser'. The description is printed directly before the final inscription 'non-fiscal'.

Errors' codes:

1: RTC clock not initiated,
4: parameter error Ps,
2: control byte error,
5: RTC clock readout error,
41: error in inscription Cash register number (too long or including wrong characters),
42: error in inscription Cashier's number,
43: error in inscription Receipt number,
44: error in inscription the Customer,
45: error in inscription the Terminal,
46: error in inscription Name of the card,
47: error in inscription Number of the card,
48: error in inscription the Month,
49: error in inscription the Year,
50: error in inscription authorization Code,
51: error in Amount value.

3.11. Additional non-fiscal printouts.

3.11.1. Starting the printout.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	0	;	1	
3	Number of printout	1..255	;	1..3	
4	Number of header	0..255		1..3	0 when the printout possesses only one kind of header
5	Command	**$w**		2	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Where:

Number of printout
Number of the report which line is to be printed. Accepted numbers are in the specification of printouts included in the further part of this chapter.

Number of the header
Number of the header which is to be printed (some reports posses few defined headers). If the printout possesses only one kind of header than this parameter should have the value = 0 (counting of the headers is started from zero). The meaning of each number depends on which printout they are present. Exact specification is included in the further part of this chapter.

Errors' codes:

    1: RTC clock not initiated,
    2: control byte error,
    4: parameter error,
    5: RTC clock readout error,
    1042: the pocket memory is full – daily report should be made.
    1043: non recorded electronic copy – the memory was full with 2 daily reports and it waits for memory carrier in order to register.

3.11.2. Printout line.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Number of printout	2..255	;	1..3	If 254 than in line will be printed a bar code (the fiscal printers which execute bar code printout). The code is sent in argument.
3	Number of lines	0..255		1..3	254 when the line s to be an undersign, 255 when the line is to be empty
4	Text formatting	0..255		1..3	Optionally parameter, it can has value: 1 – bold text (decreases about half amount of characters placed in the single line) 2 – inverse text (decreases about half amount of characters placed in the single line)
5	Text formatting	0..255	;	1..3	1 – text inverse
6	Font	0..3	;	1	0 – basic font 1 – font 2
7	Text formatting	0..1	;	1	0 – no centring 1 – centring
8	Font attributes	0..255		1..3	Attributes set on bits: 1 – font enlarged, reduced number of characters per line by half (enlargement contained in typeface) 2 – increased font 3 – font enlarged, reduced number of characters per line by half 4 – inverse
9	Command	**$w**		2	
10	Argument	Text	<CR>	0..48	These arguments are optional. Their quantity is optional
…					
N	Argument	Text	<CR>	0..48	
n + 1	Control byte	00..FF		2	
n + 2		<ESC>\		2	

Where:

Number of printout

Number of the report which line is to be printed. Accepted numbers are in the specification of printouts is included in the further part of this chapter.

Number of line

Number of line which is to be printed (counting is started from zero, ignoring the ones which are headers). If this parameter is = 254 than an undersign will be printed, and when = 255 then an empty line will be printed. The meaning of each number depends on which printout they appear. Exact specification is included in the further part of this chapter.

Argument

An optional sequence of characters from the clusters: {a..z}, {A..Z}, {0..9}, {ąćęłóńśżźĄĆĘŁÓŃŚŻŹ}, {`~@#$%^&*()_-+=[{]}\|;:'",<.>/? }. Numeric arguments accept: digits, first three letters, special characters; text arguments accept: letters, first three digits, special characters. Alphanumeric arguments accept all the above mentioned characters. Quantity and kind of arguments which can be sent during the printout of specified lines were specified above.

Remarks:

1. Specification of arguments in lines uses the following symbols:

   a. *** alphanumeric argument
   b. ### numeric argument
   c. @@@ text argument

2. In Delio printers it is possible to print bar codes in non-fiscal printouts. In that case identification 254 should be placed as „Number of printout" parameter and then in field „Argument" place code which should be printed.

Errors' codes:

1: RTC clock not initiated,
2: control byte error,
4: parameter error,
5: RTC clock readout error,

3.11.3. Ending the printout.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	1	;	1	
3	Number of printout	1..255	;	1..3	If 255 than sending this sequence prior to an optional non-fiscal report would cause printing system number and additional lines after it
4	A system number appears	0..1	;	1	0 – No, 1 - Yes
5	Quantity of additional lines	0..3	;	1	
5	Command	**$w**		2	
6	System No	Text	<CR>	0..16	
7	Line No 1	Text	<CR>	0..48	These arguments are optional
8	Line No 2	Text	<CR>	0..48	
9	Line No 3	Text	<CR>	0..48	
10	Control byte	00..FF		2	
11		<ESC>\		2	

3.11.4. Id of the buyer.

No.	Field name	Contents	Separator	Size	Remarks

1		<ESC>P		2	
2	Constant	100	;	2	
3	Type of buyer's Id number	0..3		1	1 – NIP number 2 – REGON number 3 – PESEL number
4	Command	**$z**		2	
5	Buyer's Id	text	<CR>	0..13	
6	Control byte	00..FF		2	
7		<ESC>\		2	

Error codes:

     2: control byte error,

Remarks:
Command should be sent after beginning or before ending the receipt.

3.11.5. Specification of printouts.

In black letters are the fields which length is characteristic for VENTO printer (33 characters in a verse), in blue color there are the ones lengthened for the QUARTO printer (44 characters in a verse), in violet color there are the ones lengthened for the VIVO printer (48 characters in a verse).

3.11.5.1. Printout No. 2 – Transactions put off

```
• Header 0:      TRANSACTION PUT OFF
• Header 1:      CONFIRMATION OF TRANSACTION REALISATION

         12345678901234567890123456789012345678
• Line  0: Cash reg. No: **************************************
• Line  1: Number of transaction:   #######################
• Line  2: Cashier's number:        #######################
```

3.11.5.2. Printout No. 3 – Functions of the operator.

```
• Header 0:  RAPORT of OPERATOR'S FUNCTIONS

         12345678901234567890123456789012345678
• Line 0:    Function #### ****************************
```

3.11.5.3. Printout No. 4 – Cashier's report.

```
• Header 0:          REPORT OF CASHIER X
• Header 1:          REPORT OF CASHIER Z
• Header 2:          REPORT OF CASH REGISTER X
• Header 3:          REPORT OF CASH REGISTER Z
• Header 4:          CASHIER'S OFFLINE
• Header 5:          CASHIER'S ONLINE


         12345678901234567890123456789012345678
• Line  0: NUMBER OF RESETS: ###
• Line  1: CASH REGISTER NUMBER ## *******************************
• Line  2:                  TOTAL SUMS
• Line  3: CURRENT POSITIVE SUM         #############
• Line  4: CURRENT NEGATIVE SUM          #############
• Line  5: PREVIOUS POSITIVE SUM         #############
• Line  6: PREVIOUS NEGATIVE SUM         #############
```

- Line 7:   ---------------
- Line 8: TOTAL POSITIVE SUM   ######**########**
- Line 9: TOTAL NEGATIVE SUM   ######**########**
- Line 10:   SUM OF SALE
- Line 11:   GOODS:
- Line 12: ##### POSITIVE POSITIONS   ######**########**
- Line 13: ##### OTHER SERVICES   ######**########**
- Line 14: ##### NEGATIVE POSITIONS   ######**########**
- Line 15: ##### POSITIVE CORRECTIONS   ######**########**
- Line 16: ##### NEGATIVE CORRECTIONS   ######**########**
- Line 17: ##### SHOP COUPON   ######**########**
- Line 18: SUB-TOTAL OF GOODS   ######**########**
- Line 19: SUB-TOTAL OF TAX   ######**########**
- Line 20: DISCOUNT / OVERHEAD
- Line 21: DISCOUNT HEJ HEM   ######**########**
- Line 22: DISCOUNT / OVERHEAD   ######**########**
- Line 23: DISCOUNT / OVERHEAD   ######**########**
- Line 24: DISCOUNT FOR THE EMPLOYEE   ######**########**
- Line 25: SUB-TOTAL OF PAYMENT DISCOUNT   ######**########**
- Line 26:   ---------------
- Line 27: TOTAL NET SALE   ######**########**
- Line 28:   SUM OF MEANS OF PAYMENT
- Line 29:   ŚRODKI PŁATNOŚCI
- Line 30: MEAN OF PAYMENT##: @@@ @@@**@@@@@@@@@**   #**######**
- Line 31: ##### AMOUNT   ##**########**
- Line 32: ##### COLLECTED   ##**########**
- Line 33: ##### IN TURNOVER   ##**########**
- Line 34: ##### START IN TURNOVER   ##**########**
- Line 35: ##### TYPE OF PAYMENT NO 2   ######**########**
- Line 36: SUB-TOTAL OF MEANS OF PAYMENT   ######**########**
- Line 37:   CORRECTION OF MEANS OF PAYMENT
- Line 38: ##### ADDED BANKING FUN.   ######**########**
- Line 39: ##### DECREASED BANKING FUN.   ######**########**
- Line 40: ##### SETTING ROUNDINGS   ######**########**
- Line 41: ##### SAVING THE CHEQUE   ######**########**
- Line 42: ##### RECALLING THE CHEQUE   ######**########**
- Line 43: ##### CONDUCT THE PAYMENT   ######**########**
- Line 44: SUB-TOTAL OF PAYMENT CORRECT   ######**########**
- Line 45:   -------------
- Line 46: TOTAL MEANS OF PAYMENT   ######**########**
- Line 47:   OTHER SUMS
- Line 48: ##### POSITIVE REDUCTIONS   ######**########**
- Line 49: ##### NEGATIVE REDUCTIONS   ######**########**
- Line 50: ##### ERROR CORRECTION   ######**########**
- Line 51: ##### SUM OF RETURNS   ######**########**
- Line 52: ##### RETURN OF COSTS   ######**########**
- Line 53: ##### INVALIDATED MEANS   ######**########**
- Line 54: ##### POSITIONS OF SALE   ######**########**
- Line 55: ##### TOTAL DISCOUNT   ######**########**
- Line 56: ##### ANNULLED SALE WANA   ######**########**
- Line 57: ##### SAVED SALE   ######**########**
- Line 58: ##### CANCELLED SALE   ######**########**
- Line 59: ##### RECALLED SALE   ######**########**
- Line 60: ##### CHANGE IN PAYMENT MEANS   ######**########**
- Line 61: ##### WITHOUT TAX   ######**########**
- Line 62: ##### FREE AMOUNT   ######**########**
- Line 63: ##### RETURN OF OVERPAID VAT   ######**########**
- Line 64: ##### ISSUED STAMPS   ######**########**
- Line 65: ##### POSIT. FROM KEYBO. #######
- Line 66: ##### SCANNED POSITIONS   #######
- Line 67: ##### WEIGHTED POSITION   #######
- Line 68: TOTAL WEIGHTED POSITIONS   ##**########**
- Line 69: ##### POSITIVE TRANSACTIONS   ######**########**
- Line 70: ##### RETURN OF OVERPAID CASH   ######**########**
- Line 71: ##### OTHER TRANSACTIONS   ######**########**
- Line 72: ##### OPENING THE DRAWER   ######**########**
- Line 73: ##### CURRENT SUM   ######**########**
- Line 74: ##### AMOUNT OF CUSTOMERS   #######**########**

- Line 75: ##:## CASHIER'S WORK TIME
- Line 76: ##:## TEMPOR. CASH REGISTER SET OFF
- Line 77: ##:## MOMENT OF INTRODUCING GOODS
- Line 78: ##:## MOMENT OF PAYMENT
- Line 79: ##:## MOMENT OF OPENING THE DRAWER

3.11.5.4. Printout No. 5 – Report of means of payment.

- Header 0:   REPORT OF MENAS OF PAYMENT

```
          12345678901234567890123456789012345678
```
- Line 0: CASHIER @@@@@@@@@@@@@@@@@@@@
- Line 1: MEAN OF PAYM.##: @@@ @@@@**@@@@@@@@**   #**######**
- Line 2: ##### AMOUNT   #######**########**
- Line 3: ##### COLLECTED   #######**########**
- Line 4: ##### IN TURNOVER   #######**########**
- Line 5: ##### START IN TURNOVER   #######**########**
- Line 6: SUB-TOTAL OF MEANS OF PAYMENT #######**########**

3.11.5.5. Printout No. 6 – Sale recorded in the cash register.

- Header 0:   SALE RECORDED IN THE CASH REGISTER

```
          12345678901234567890123456789012345678
```
- Line 0: CASH REGISTER NUMBER ## @@@
- Line 1: SUB-TOTAL OF SALE   #######**########**
- Line 2: SUB-TOTAL OF SALE RECEIPT   #######**########**
- Line 3: SUB-TOTAL OF DISCOUNT / OVERHEAD #######**########**
- Line 4:   ----------------
- Line 5: TOTAL SALE   #######**########**

3.11.5.6. Printout No. 7 – Receipt

- Header 0:   RECEIPT

```
          12345678901234567890123456789012345678
```
- Line 0: RETURN: ###################**##########**
- Line 1: MEAN OF PAYMENT: @@@@@@@@**@@@@@@@@@@@@@@@@@@@@@@**
- Line 2: AMOUNT   ###################**##########**
- Line 3: ACCOUNT: ###################**##########**
- Line 4: SIGNATURE: ....

3.11.5.7. Printout No. 8 – Pre-payment.

- Header 0:   PRE-PAYMENT

```
          12345678901234567890123456789012345678
```
- Line 0: NUMBER OF ORDER: ###########**##########**
- Line 1: MEAN OF PAYMENT: @@@@@@@@**@@@@@@@@@@@@@@@@@@@@@@**
- Line 2: AMOUNT: ###################**##########**
- Line 3: ACCOUNT: ###################**##########**
- Line 4: PRE-PAYMENT: #################**##########**
- Line 5: CHANGE: #################**##########**

3.11.5.8. Printout No. 9 – Gift bond.

- Header 0:   GIFT BOND

```
          12345678901234567890123456789012345678
```
- Line 0: *** REALIZED ***"
- Line 1: Amount: ###################**#########**
- Line 2: Cashier:
- Line 3: Date: ########## Hour: ###############
          Shop: ***************************

3.11.5.9. Printout No. 10 – Credit note.

- Header 0:   CREDIT NOTE

```
          12345678901234567890123456789012345678
```
- Line 0: *** REALIZED ***"
- Line 1: Amount: #######################**#########**
- Line 2: Cashier:
- Line 3: Date: ######### Hour.: ###############
          Shop: *********************####**********

3.11.5.10. Printout No. 11 – Credit note - return.

- Header 0:   CREDIT NOTE

```
          12345678901234567890123456789012345678
```
- Line 0: Amount: #######################**#########**
- Line 1: In words: *********************##**********
- Line 2: Return No: #######################**#########**
- Line 3: Cashier:
- Line 4: Date: ######### Hour: ###############
          Shop: *********************##**********

3.11.5.11. Printout No. 12 – Discount coupon

- Header 0:   DISCOUNT COUPON

```
          12345678901234567890123456789012345678
```
- Line 0: *** REALIZED ***
- Line 1: Amount: #######################**#########**
- Line 2: Cashier:
- Line 3: Date: ######### Hour: ###############
          Shop: *********************##**********

3.11.5.12. Printout No. 13 – Payment on delivery

- Header 0:   PAYMENT ON DELIVERY

```
          12345678901234567890123456789012345678
```
- Line 0: *** REGISTERED SALE ***
- Line 1: ID number: ##########**##########**
- Line 2: Amount: #######################**#########**
- Line 3: Cashier:
- Line 4: Date: ######### Hour: ###############
          Shop: *********************##**********

3.11.5.13. Printout No. 14 – Banking transfer

- Header 0:   BANKING TRANSFER

```
          12345678901234567890123456789012345678
```
- Line 0: *** REALIZED ***
- Line 1: Customer No: ####################**#########**
- Line 2: Amount: ######################**#########**
- Line 3: Balance: #######################**##########**
- Line 4: Cashier:
- Line 5: Date: ######### Hour: ###############
          Shop: *********************##**********

3.11.5.14. Printout No. 15 – Gift bond

- Header 0:   CONFIRMATION OF GIFT BOND SALE

```
          12345678901234567890123456789012345678
• Line  0: Bond value:         ########################
• Line  1: Name:          ******************************
• Line  2: Cashier:
• Line  3: Date: ########## Hour: ###############
           Shop:         ******************************
```

3.11.5.15. Printout No. 16 – Discount for the employee.

```
• Header 0:              DISCOUNT FOR THE EMPLOYEE

          12345678901234567890123456789012345678
• Line  0: DISCOUNT FOR THE EMPLOYEE:  ###################
• Line  1: Number of the employ.:      ##################
• Line  2: AMOUNT:                     ###################
• Line  3: SIGNATURE:       ..............................
```

3.11.5.16. Printout No. 17 – Change in means of payment.

```
• Header 0:           CHANGE IN MEANS OF PAYMENT

          12345678901234567890123456789012345678
• Line  0: FROM:           ******************************
• Line  1: TO:             ******************************
```

3.11.5.17. Printout No. 18 – Cash register operations.

```
• Header 0:              CASH REGISTER OPERATIONS

          12345678901234567890123456789012345678
• Line  0: OPERATION ###:        **************************
```

3.11.5.18. Printout No. 19 – Errors of the cash register.

```
• Header 0:              ERRORS OF THE CASH REGISTER

          12345678901234567890123456789012345678
• Line  0: FATAL ERROR
• Line  1: Service:         **********************
• Line  2: Device:          **********************
• Line  3: Added device:    **********************
• Line  4: Function:        **********************
• Line  5: Sub-function:    **********************
• Line  6: Register  # :    **********************
• Line  7: Trans     # :    **********************
• Line  8: Error code  :    **********************
```

3.11.5.19. Printout No. 20 – Price list.

```
• Header 0:                 PRICELIST
• Header 1:               PRICE CHANGES
• Header 2:            STATISTIC OF SALE
• Header 3:      CONFIRMATION OF CONDUCTING TRANSACTION

          12345678901234567890123456789012345678
• Line  0: SHOP ************************
• Line  1: DATE   ########  ########
• Line  2: Item code: ############ Price:     ##############
• Line  3: Item code: ############# Date:     ##############
• Line  4: Price1: ###############  Price2:   ##############
• Line  5: Amount :                           ##############
```

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3.11.5.20. Printout No. 21 – Giving a gift voucher.

```
• Header 0:          GIVING A GIFT VOUCHER
            12345678901234567890123456789012345678

• Line  0: GIFT VOUCHER:                ###############
• Line  1: VOUCHER NUMBER        ********************
• Line  2: SUM :                     #############
• Line  3: MEAN OF PAYMENT    ***************************
• Line  4: AMOUNT:         ##############################
• Line  5: ACCOUNT:        ##############################
• Line  6: CHANGE:         ############################
```

3.11.5.21. Printout No. 22 – Confirmation of transaction.

```
• Header 0:        Confirmation of payment with credit card
• Header 1:        Confirmation of payment for receipt
• Header 2:                Receipt
• Header 3:        Receipt of transaction recognition
• Header 4:         Receipt of cancellation
• Header 5:         Receipt of authorization refusal


            12345678901234567890123456789012345678
• Line  0: Cash reg. No: ****          Cashier: *******
• Line  1: No of sale proof:    ****************
• Line  2: No of transaction:   ***************
• Line  3: TID: ********            UID: ****************
• Line  4: TID: ********            MID: ***************
• Line  5: Payment for receipt No:
                     ******************************
• Line  6: For:      ******************************
• Line  7: No of customer:    *************************
• Line  8: Card:        ***************************
• Line  9: **********************        Valid to: **/**
• Line 10: Sale:              PLN ********************
• Line 11: Refund:            PLN ********************
• Line 12: Cash:              PLN ********************
• Line 13: In words:     ****************************
• Line 14:               ****************************
• Line 15: Commission:         PLN *****************
• Line 16: Total to pay:       PLN ******************
• Line 17: Authorization code:         ************
• Line 18: Amount of points for transaction:    **********
• Line 19: Amount of points after transaction:  **********
• Line 20: Amount on the card:        ***************
• Line 21: Please debit my account
• Line 22: Please credit my account
• Line 23: Transaction invalid
• Line 24:             PIN CODE ACCEPTED
• Line 25:          .......................
• Line 26:          signature of card's owner
• Line 27:          signature of cashier
• Line 28:          signature of the customer
• Line 29:          ORIGINAL
• Line 30:          COPY
   •
• Line 31: Sale:              *** ********************
• Line 32: Acceptation:       *** ********************
• Line 33: Cash:              *** ********************
• Line 34: Commission:         *** *****************
• Line 35: Total to pay:       *** *****************
• Line 36: AID:         *******************************
• Line 37: TC:          *******************************
• Line 38: AAC:         *******************************
• Line 39: PSN:         *******************************
```

```
• Line 40: ATC:         ********************************
• Line 41: ARC:         ********************************
• Line 42: AAA: ********************************
                                        TD:************
• Line 43: TAC DEFAULT:         ***************************
• Line 44: TAC DENIAL:          ***************************
• Line 45: TAC ONLINE:          ***************************
• Line 46: IAC DEFAULT:         ***************************
• Line 47: IAC DENIAL:          ***************************
• Line 48: IAC ONLINE:          ***************************
• Line 49: Commercial Code **********:        ************
• Line 50: Additional data:        ***********************
• Line 51: No. of ID document:         ...................
• Line 52: Authorization centre:       *******************
• Line 53:        CONFIRMATION OF AUTHORIZATION REFUSAL
• Line 54:               TRANSACTION REJECTED
• Line 55: System message:         ******************
• Line 56: Payment:            *** *********************
• Line 57: Total:              *** *********************
• Line 58: Return:             *** *********************
• Line 59: Cashback:           *** *********************
• Line 60: Cash:               *** *********************
• Line 61: SALE:               *** *********************
• Line 62: REFUND:             *** *********************
• Line 63: FX RATE:         ******************************
• Line 64: TRANSACTION CURRENCY:       *****************
• Line 65: DCC service provided by:       **************
• Line 66: REJECTION RECEIPT TRANSACTION WAS
• Line 67: REJECTED SYSTEM MESSAGE:       **************
• Line 68:        CANCELLATION RECEIPT TRANSACTION WAS
• Line 69:                      CANCELED
• Line 70:                    PIN VERIFIED
• Line 71:                    SIGNATURE
```

3.11.5.22. Printout No. 23 – Confirmation of supercharging.

```
• Header 0:      Confirmation of supercharging GSM number
• Header 1:      Confirmation of number correctness

          12345678901234567890123456789012345678
• Line  0: Cash reg. No: ***              Cashier: *******
• Line  1: No. of sale proof:     **************
• Line  2: Supercharging code: ******************
• Line  3: For: ******************************
• Line  4: Telephone number:  *********
• Line  5: Confirmation of supercharging by SMS
• Line  6: Value in PLN:              ***********
• Line  7: I confirm correctness of telephone number
• Line  8:          ........................
• Line  9:               customer signature
```

3.11.5.23. Printout No. 24 – Purchase of currencies.

```
• Header 0:         Confirmation of currency purchase

          12345678901234567890123456789012345678
• Line  0: Cash reg. No: ***              Cashier: *******
• Line  1: No. of sale proof:                **********
• Line  2: Currency purchase:           **** **********
• Line  3: Exch.rate of currency purchase:*******************
• Line  4: Value in PLN:                     **********
• Line  5: In words:        *****************************
• Line  6:                  *****************************
```

3.11.5.24. Printout No. 25 – Discount voucher.

```
• Header 0:                    DISCOUNT VOUCHER
• Header 1:                    LIST OF GOODS


           12345678901234567890123456789012345678901234 5678
• Line  0: Shop ***    Cash reg. No: ***     Cashier: *******
• Line  1: No of sale proof:  *******************
• Line  2: BONUS GOODS                    AMOUNT OF BONUS
• Line  3: GOODS: *************************           **********
• Line  4: TOTAL: ***********
• Line  5: BONUS: *************
• Line  6: BONUS: ************************************
• Line  7: VALID: ***********************************
```

3.11.5.25. Printout No. 26 – Shift report.

```
• Header 0:                  SHIFT REPORT


           12345678901234567890123456789012345678901234 5678
• Line  0: SHIFT:                  **********************
• Line  1: Cashier:                 **********************
• Line  2: INCOMS:                  #####################
• Line  3: CASH SALE:        ###################
• Line  4: Card ***************:      ###############
• Line  5: Cheque *************:      ###############
• Line  6: Voucher ************:      ###############
• Line  7: Payment to the cash reg: ###################
• Line  8: Giving out the packages: ###################
• Line  9:  OUTCOMES:               #####################
• Line 10: Pay out from the cash reg:###################
• Line 11: Returns of packages:     ###################
• Line 12: ACCOUNTING
• Line 13: Cash:                    #####################
• Line 14: Card ***************:      ###############
• Line 15: Cheque *************:      ###############
• Line 16: Voucher ************:      ###############
• Line 17: Packages:                ###################
• Line 18: TOTAL
• Line 19: CASH STATE:              #####################
• Line 20: AMOUNT OF RECEIPTS:      ###################
• Line 21: AMOUNT OF ANNULLED RECEIPTS:     ############
• Line 22: Amount of storno positions:      ############
• Line 23: Starting shift:                ************
• Line 24: Finishing shift:               ************
```

3.11.5.26. Printout No. 27 – Clearing the account.

```
• Header 0:              Clearing the account
• Header 1:              Gift card balance
• Header 2:                 Gift card
• Header 3:          Confirmation of paying by card
• Header 4:             Means of payments change
• Header 5:               iCard balance
• Header 6:          iCard transaction confirmation



           12345678901234567890123456789012345678901234 5678
• Line  0:            Clearing the account      **********
• Line  1: State of account before transaction:  **********
• Line  2: Granted bonus:                        **********
• Line  3: Taken advantage:                      **********
```

```
• Line  4: State of account after transaction:   **********
• Line  5: Article no:                ######## ##########
• Line  6: Card name:                 @@@@@@@@@@@@@@@@@@@@
• Line  7: Card number:                  ##################
• Line  8: Authorization number:                    ####
• Line  9: Date of card validation:             ##########
• Line 10: Card balance:                     ##############
• Line 11: iCard – charged:                   #########
• Line 12: iCard:             *************** #########
• Line 13: Mean of payment issued      ******** #########
• Line 14: iCard quota:                      ##########
• Line 15: Mean of paym.     *************** #########
• Line 16: Total:                           ##########
• Line 17: Change:                          ##########
          12345678901234567890123456789012345678901234.5678
```

3.11.5.27. Printout No. 28 – Cash register / cashier report.

```
• Header 0:                CASHIER REPORT
• Header 1:                SHORTEN REPORT

          12345678901234567890123456789012345678901234.5678
• Line  0:                Type of payment
• Line  1: Customer account                    ###########
• Line  2: Routex                              ###########
• Line  3: LOMO                                ###########
• Line  4: DKV                                 ###########
• Line  5: UTA                                 ###########
• Line  6: Routex Manual                       ###########
• Line  7: LOMO Manual                         ###########
• Line  8: DKV Manual                          ###########
• Line  9: UTA Manual                          ###########
• Line 10: Banking card and T&E                ###########
• Line 11: Cheques                             ###########
• Line 12: Vouchers                            ###########
• Line 13: Cash in   PLN                       ###########
• Line 14: Foreign currenc. calc.              ###########
• Line 15: TOTAL                              ############
• Line 16:                    Incomes
• Line 17: Beginning amount                    ###########
• Line 18: Sale                                ###########
• Line 19: Pay in                              ###########
• Line 20: Appearing on account                ###########
• Line 21: Incaso differences                  ###########
• Line 22: TOTAL                              ############
• Line 23:                    Outcomes
• Line 24: Returns                             ###########
• Line 25: Pay out                             ###########
• Line 26: Ending amount                       ###########
• Line 27: TOTAL                              ############
• Line 28:                Payments in PLN
• Line 29: Cheques in safe                     ###########
• Line 30: Cheques in the cash register        ###########
• Line 31: TOTAL                              ############
• Line 32: Vouch. In safe                      ###########
• Line 33: Vouch. In cash register             ###########
• Line 34: TOTAL                              ############
• Line 35: Cash in safe                        ###########
• Line 36: Cash in cash register               ###########
• Line 37: TOTAL                              ############
• Line 38:           Payments in foreign currencies
• Line 39: DM in safe                          ###########
• Line 40: DM in cash register                 ###########
• Line 41: TOTAL                              ############
• Line 42: USD in safe                         ###########
• Line 43: USD in cash register                ###########
```

```
• Line 44: TOTAL                              ############
• Line 45: GBP in safe                        ############
• Line 46: GBP in cash register               ############
• Line 47: TOTAL                              ############
• Line 48:                  Safe
• Line 49:            No. of hiding place ####
• Line 50: Cash in PLN                        ############
• Line 51: Cheque                             ############
• Line 52: Voucher                            ############
• Line 53: DM                                 ############
• Line 54: USD                                ############
• Line 55: GBP                                ############
• Line 56:            Clearing the cashier
• Line 57: Cheques in cash register           ############
• Line 58: Counted cheques                    ############
• Line 59: DIFFERENCE                         ############
• Line 60: Vouch in cash register             ############
• Line 61: Counted vouch.                     ############
• Line 62: DIFFERENCE                         ############
• Line 63: Cash in PLN                        ############
• Line 64: Cash counted                       ############
• Line 65: DIFFERENCE                         ############
• Line 66: DM in cash register                ############
• Line 67: DM counted                         ############
• Line 68: DIFFERENCE                         ############
• Line 69: USD in cash register               ############
• Line 70: USD counted                        ############
• Line 71: DIFFERENCE                         ############
• Line 72: GBP in cash register               ############
• Line 73: GBP counted                        ############
• Line 74: DIFFERENCE                         ############
• Line 75:           Shift closed
• Line 76: Shift No                                   ###
• Line 77: Cashier                     ##################
```

3.11.5.28. Printout No. 29 – Pay in / Pay out.

```
• Header 0:            RECEIPT FROM PAY IN
• Header 1:            RECEIPT FROM PAY OUT


           12345678901234567890123456789012345678
• Line  0: Number:                            ######
• Line  1: To whom:               @@@@@@@@@@@@@@@@@@@@
• Line  2: Title of pay in / pay out          how much
• Line  3: Prepayment                         ############
• Line  4: Protection                         ############
• Line  5: To invoice                         ############
• Line  6: Coins                              ############
• Line  7: Pay in 1                           ############
• Line  8: Pay in 2                           ############
• Line  9: Safe                               ############
• Line 10: Pay out 1                          ############
• Line 11: Pay out 2                          ############
• Line 12: To bank                            ############
• Line 13: Coins                              ############
• Line 14: Pay out                            ############
• Line 15: Total                              ############
• Line 16:            Above amount received
• Line 17:            ....................
• Line 18:                 signature
```

3.11.5.29. Printout No. 30 – States of counters.

```
• Header 0:            STATES OF COUNTERS


           12345678901234567890123456789012345678
```

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```
• Line  0: Pomp  ## ##### state            #############lit.
• Line  1:                   Counters total
• Line  2: Fuel             #############################lit.
```

3.11.5.30. Printout No. 31 – Report of tanking.

```
• Header 0                 REPORT OF TANKING

            12345678901234567890123456789012345678
• Line  0: No Sort                 Cont. Capacity  Reserve    Alarm
• Line  1: ## ##########          ######## #####   ########
```

3.11.5.31. Printout No. 32 – Confirmation of payment by card.

```
• Header 0                 CREDIT CARD 0 29 0

            12345678901234567890123456789012345678
• Line  0: No of transaction:                  ######
• Line  1: Date: ########               Hour:    #####
• Line  2: Name of card:               @@@@@@@@@@@@@@@@
• Line  3: Number of card:             ##################
• Line  4: Transaction with card:              ######
• Line  5: No of authorization                 ######
• Line  6: Authorization ID:                   #######
• Line  7: No. Name                          Uom  Amount
• Line  8: ##   @@@@@@@@@@@@@@            ***  #######
• Line  9: AMOUNT:                           ##########
• Line 10.              ......................
• Line 11:                  signature
• Line 12: Owner    :        ************************
• Line 13: Data ident.:      ************************
• Line 14: Data ident.:      ************************
• Line 15: Mileage:                  ##############
• Line 16: Driver code:              ##########
• Line 17: Registr. No:          *****************
```

3.11.5.32. Printout No. 33 – Currency in the safe.

```
• Header 0:                 CURRENCY IN THE SAFE

            12345678901234567890123456789012345678
• Line  0: TOTAL CASH IN THE SAFE :          ##########
• Line  1: ### ########## IN THE SAFE :      ##########
• Line  2: TOTAL CHEQUES IN THE SAFE :       ##########
• Line  3: TOTAL VOUCHERS IN THE SAFE:       ##########
• Line  4: TOTAL IN THE SAFE :               ##########
• Line  5: NUMBER OF HIDING PLACE        ##############
```

3.11.5.33. Printout No. 34 – Report of fuel alarm.

```
• Header 0:                 REPORT OF FUEL ALARM

            12345678901234567890123456789012345678
• Line  0: Container no                       #######
• Line  1: Fuel description             ################
• Line  2:        ALARM TYPE:
• Line  3: ***********************************
• Line  4: ***********************************
• Line  5: ***********************************
• Line  6: DATE                         #############
• Line  7: TIME                         #########
```

3.11.5.34. Printout No. 35 – Ticket to car wash.

```
• Header 0:                     TICKET TO CAR WASH

               12345678901234567890123456789012345678901234567 8
• Line  0: VALID ON ## PROGRAM NO ##              PLN ######
• Line  1:     IN ORDER TO START WASH ENTER
• Line  2:                   PROGRAM CODE
• Line  3: PROGRAM CODE:                   ##############
• Line  4: ISSUED (DAY)  ###########      TIME ########
• Line  5:            INVITE YOU TO
• Line  6:              OUR CAR WASH
```

3.11.5.35. Printout No. 36 – Report of fuel state.

```
• Header 0:               REPORT OF CONTAINERS STATE

               12345678901234567890123456789012345678901234567 8
• Line  0: MODULE: *** POSITION: ### PROBE NO ####
• Line  1: DESCRIPTION:    *****************************
• Line  2: PRODUCT:        *****************************
• Line  3:                           LEVEL     CAPACITY
• Line  4:                           (CM)      (LTR)
• Line  5: CAPACITY                ########## ###########
• Line  6: PRODUCT                 ########## ###########
• Line  7: WATER                   ########## ###########
• Line  8: TOTAL                   ########## ###########
• Line  9:            TEMPERATURE CORRECTION
• Line 10: PRODUCT                 ####################
• Line 11: WATER                   ####################
• Line 12: TOTAL                   ####################
• Line 13: MAX.LEVEL OF FILLING:   ####################
• Line 14: MAX.TO FILLING:           ##################
• Line 15: AVERAGE TEMPERAT. OF PRODUCT:      ##########
```

3.11.5.36. Printout No. 37 – Report of fuel delivery.

```
• Header 0:               REPORT OF FUEL DELIVERY

               12345678901234567890123456789012345678901234567 8
• Line  0: CONTAINER:                           #######
• Line  1: MARK:      ######         PRODUCT: ###########
• Line  2: REPORT OF DELIVERY – STABLE
• Line  3: BEFORE DELIVERY
• Line  3: PRODUCT CAPACITY:           ##################
• Line  5: WATER CAPACITY:             ##################
• Line  6: CAPACITY TO FILLING:        ##################
• Line  7: TEMPERAT. OF PRODUCT:        ###############
• Line  8: AFTER DELIVERY
• Line  9: PRODUCT CAPACITY:           ##################
• Line 10: WATER CAPACITY:             ##################
• Line 11: CAPACITY TO FILLING:        ##################
• Line 12: TEMPERAT. OF PRODUCT:        ###############
• Line 13: DELIVERY
• Line 14: DATE: ###########       TIME: ############
• Line 15: CAPACITY:                   #################
• Line 16: TEMPERATURE:                #################
• Line 17: NET DELIVERY 15C):          ################
• Line 18: TEMPERAT. OF PRODUCT:        ###############
• Line 19: ACCOUNTANT DELIVERY CAPAC.:   ###############
• Line 20: DIFFERENCE:                 ################
```

3.11.5.37. Printout No. 38 – Report of BP partner club change.

```
• Header 0:              BP partner club

            12345678901234567890123456789012345678
• Line  0: No of terminal                 Name of station
• Line  1: #########             @@@@@@@@@@@@@@@@@@@@@@
• Line  2: The next number                 ##############
• Line  3: Terminal code                   ##############
• Line  4: Operator                    ####################
• Line  5: Starting time                      #########
• Line  6: Starting date                   ##############
• Line  7: Finishing time                     #########
• Line  8: Finishing date                  ##############
• Line  9: Tariff PKT man. TR. man. 36 9 0
• Line 10: TAR ##:              ###########################
• Line 11 : % of emission           #####################
• Line 12 : Sold litres            #####################
• Line 13: Issued litres           #####################
• Line 14: DAR                     #####################
• Line 15: Points changed          #####################
• Line 16: Points registered       #####################
• Line 17: Trans. Given away       #####################
```

3.11.5.38. Printout No. 39 – Gift confirmation.

```
• Header 0:              BP partner club

            12345678901234567890123456789012345678
• Line  0: No of terminal                 Name of station
• Line  1: #########             #####################
• Line  2: Amount #########          Gift number #######
• Line  3: of points for the gift          ##############
• Line  4: Total points with gift          ##############
• Line  5: Number of card        #########################
• Line  6: Initial points                  ##############
• Line  7: Cancelled points                ##############
• Line  8: New points total                ##############
• Line  9: Name  ########################################
• Line 10: Thank you. See you again
• Line 11: No of terminal                  ##############
• Line 12: Seller's code                   ##############
• Line 13: Date #############         Cashier no #########
• Line 14: Time                             ##########
```

3.11.5.39. Printout No. 40 – Confirmation of giving away the gift.

```
• Header 0:              BP partnerclub

            12345678901234567890123456789012345678
• Line  0: Time ##########           Date #################
• Line  1: Amount ##########             Gift number #######
• Line  2: of points for the gift          #############
• Line  3: Total points for the gift       #############
• Line  4: Name    ********************************
```

3.11.5.40. Printout No. 41 – Confirmation of paying by credit card.

```
• Header 0: Confirmation of paying by credit card
            123456789012345678901234567890123456789012345
• Line  0: Cash Reg.No: ###       Cashier:      #######
• Line  1: No. of sale evidence:         ##############
• Line  2: TID: ########          UID: ###############
• Line  3: TID: ########          MID: ###############
• Line  4: Paying for bill No.:     *****************
• Line  5: For:       @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
• Line  6: Card: ********************************
• Line  7: ********************* Valid to: ##/##
• Line  8: S A L E :        # # # # # # # #    $
```

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```
• Line   9: REFUND :          # # # # # # # #    $
• Line  10: CASH :            # # # # # # # #    $
• Line  11: In words:    ****************************
• Line  12:              ****************************
• Line  13: Authorisation code:           ***********
• Line  14: No.of points for transaction:    #########
• Line  15: No.of points after transaction:  #########
• Line  16: Amount on card:                 ##########
• Line  17:       Please debit my account
• Line  18:        Please credit my account
• Line  19:         TRANSACTION INVALID
• Line  20:          PIN CODE VERIFIED
• Line  21:        .....................
• Line  22:        Signature of card owner
• Line  23:              ORIGINAL
• Line  24:                COPY
```

3.11.5.41. Printout No. 42 – Confirmation of GSM number re-charging

```
• Header 0: Confirmation of GSM number re-charging
            12345678901234567890123456789012345678901234
• Line   0: Cash Reg.No: ###           Cashier: #######
• Line   1: No.of sale evidence:        ##############
• Line   2: Re-charging code:           ##################
• Line   3: For:
• Line   4:         ********************************
• Line   5: Telephone No:  #########
• Line   6: Re-charging confirmation by SMS
```

3.11.5.42. Printout No. 43 – Confirmation of re-charging / re-charging cancellation / re-charging order

```
• Header 0: Re-charging confirmation
• Header 1: Re-charging order
• Header 2: Confirmation of re-charging cancellation
            12345678901234567890123456789012345678901234
• Line   0: Cash Reg.No: ###           Cashier: #######
• Line   1: Date: ##########              Hour: #####
• Line   2: TID: ########        MID: ################
• Line   3: No.of sale evidence:   *******************
• Line   4: No.of payment:    ************************
• Line   5: Packet: ######     RPN: ################
• Line   6: AUTHORIZATION CODE:  **********************
• Line   7: Transaction No:   ************************
• Line   8: Serial No:     **************************
• Line   9: Control No:
• Line  10:       *********************************
• Line  11: Bar code:     **********************
• Line  12:       *********************************
• Line  13: Title:     ****************************
• Line  14:           *****************************
• Line  15: Telephone No:     #####################
• Line  16: Identificator:   **********************
• Line  17: Account re-charging succeed
• Line  18: Re-charging confirmation by SMS
• Line  19: Re-charging code:
• Line  20:            ##############################
• Line  21: Validation date:          ##########
• Line  22: Price:                  ########### $
• Line  23: Discount:               ########### $
• Line  24: Charge:                 ########### $
• Line  25: Total to pay:           ########### $
• Line  26: Charge paid by: cash
• Line  27: Charge paid by: payment card
• Line  28: Card No:      #############################
• Line  29: System message:
• Line  30:         ***************************
```

- Line 31:   ****************************
- Line 32:   Re-charging confirmation
- Line 33:   Customer signature:
- Line 34:   ....
- Line 35:   O R I G I N A L
- Line 36:   C O P Y
- Line 37:   Receipt is a proof of payment
- Line 38:   Keep the receipt

3.11.5.43. Printout No 44 – Payment confirmation / payment cancellation

- Header 0: Payment confirmation
- Header 1: Confirmation of payment cancellation
                 12345678901234567890123456789012345678901234
- Line   0: Cash Reg.No: ###   Cashier: #######
- Line   1: Date: ##########   Hour: #####
- Line   2: TID: ########   MID: ################
- Line   3: Payment No: *************************
- Line   4: Transaction No: ************************
- Line   5: Control No:
- Line   6:   **********************************
- Line   7: Bar code: ########################
- Line   8:   ##############################
- Line   9: Invoice issuer: ********************
- Line 10: Invoice No: ************************
- Line 11: Customer No: *************************
- Line 12: Title: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line 13:   @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line 14: Term of payment: ##########
- Line 15: Value: $ ###########
- Line 16: Discount: $ ###########
- Line 17: Interest: $ ###########
- Line 18: Charge: $ ###########
- Line 19: Total to pay: $ ###########
- Line 20: In words: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line 21:   @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line 22: Charge paid by: cash
- Line 23: Charge paid by: payment card
- Line 24: Card No: #############################
- Line 25: System message:
- Line 26:   @@
- Line 27:   @@
- Line 28:   O R I G I N A L
- Line 29:   C O P Y

3.11.5.44. Printout No 45 – Discount coupon

- Header 0: Discount coupon
                 12345678901234567890123456789012345678901234
- Line   0: Coupon to receipt: ##### ########## #####
- Line   1: Promoted goods   Amount of bonus
- Line   2: ---
- Line   3: ***********************   ##########
- Line   4: ---
- Line   5: TOTAL   ##########
- Line   6:   ##################
- Line   7: Valid   ########## - ##########
- Line   8:   ##################
- Line   9:   Without bar code

3.11.5.45. Printout No 46 – Confirmation of transaction / pre-authorization / cancellation / authorization rejection

- Header 0: TRANSACTION CONFIRMATION

- Header 1: PRE-AUTHORIZATION
- Header 2: CANCELLATION CONFIRMATION
- Header 3: CONFIRMATION OF AUTHORIZATION REJECTION
          12345678901234567890123456789012345678901234
- Line   0: Authorization centre: ********************
- Line   1: Cash Reg.No: ###   Cashier: #######
- Line   2: No.of sale evidence: ##############
- Line   3: TID: ########   UID: ###############
- Line   4: TID: ########   MID: ###############
- Line   5: Paying for bill No: ******************
- Line   6: For: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line   7: Card: ************************   PSN:**
- Line   8: ***********************   Valid to: ##/##
- Line   9: P R E - A U T . :   # # # # # # # # $
- Line 10: S A L E :   # # # # # # # # $
- Line 11: R E F U N D :   # # # # # # # # $
- Line 12: C A S H :   # # # # # # # # $
- Line 13: P A Y M E N T :   # # # # # # # # $
- Line 14: T O T A L :   # # # # # # # # $
- Line 15: In words: *****************************
- Line 16:   *****************************
- Line 17:   Please debit my account
- Line 18:   Please credit my account
- Line 19:   TRANSACTION CANCELLED
- Line 20:   TRANSACTION REJECTED
- Line 21:   PREAUTHORIZATION COMPLETED
- Line 22:   TRANSACTION REGISTERED
- Line 23:   PIN CODE VERIFIED
- Line 24:   ....
- Line 25:   Signature of card owner
- Line 26: System message: ********************
- Line 27:   ***********************************
- Line 28:   ***********************************
- Line 29: Authorization code: ***********
- Line 30: Commercial Code   **********************
- Line 31: Additional data: *********************
- Line 32: ****[****]:   ***********************
- Line 33:   ***********************
- Line 34: No.of identity card: ....
- Line 35: No.of points for transaction: #########
- Line 36: No.of points after transaction: #########
- Line 37: Amount on card: ##########
- Line 38:   ORIGINAL
- Line 39:   COPY

3.11.5.46. Printout nr 47 – Transaction / pre-authorization / cancellation / declination confirmation

- Header 0: TRANSACTION CONFIRMATION
- Header 1: PRE-AUTHORIZATION CONFIRMATION
- Header 2: CANCELLATION CONFIRMATION
- Header 3: DECLINATION CONFIRMATION
          12345678901234567890123456789012345678901234
- Line   0: Acquirer/Processor: *******************
- Line   1: ECR no: ###   Cashier: #######
- Line   2: Receipt number: ##############
- Line   3: TID: ########   UID: ###############
- Line   4: TID: ########   MID: ##############
- Line   5: Invoice number: ******************
- Line   6: For: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line   7: Card: ************************ PSN: **
- Line   8: *********************   Valid date:##/##
- Line   9: P R E - A U T . : # # # # # # # # $
- Line 10: S A L E :   # # # # # # # # $
- Line 11: R E F U N D :   # # # # # # # # $
- Line 12: In words: ****************************

```
• Line  13: *****************************

• Line  14: Fx rate: 1 *** = ########### $
• Line  15: Trans.currency: ######### ***
• Line  16: DCC service provided by    ****************
• Line  17: Statement:    ***************************
• Line  18: **************************************

• Line  19: ***************************************

• Line  20: ***************************************

• Line  21: ***************************************

• Line  22: ***************************************

• Line  23: ***************************************

• Line  24: ***************************************

• Line  25: ***************************************

• Line  26:             Please debit my account
• Line  27:             Please credit my account
• Line  28:             TRANSACTION CANCELLED
• Line  29:             TRANSACTION REJECTED
• Line  30:                 COMPLETION
• Line  31:                  OFF-LINE
• Line  32:                PIN VERIFIED
• Line  33:             .....................
• Line  34:                 Signature
• Line  35: System message: **********************
• Line  36: ***************************************

• Line  37: ***************************************

• Line  38: Authorization code:           ***********
• Line  39: Commercial Code     ***********************
• Line  40: Extra data:        ***********************
• Line  41: ****[****]:      **************************
• Line  42:  ***************************

• Line  43: Document ID:    ...........................
• Line  44: Points for transaction:         #########
• Line  45: Points after transaction:       #########
• Line  46: Amount on the card:            ##########
• Line  47:                ORYGINAL
• Line  48:                  COPY
```

3.11.5.47. Printout No. 100 – Electronic transaction.

```
         12345678901234567890123456789012345678
• Line  0: **********************************
          **********************************
          **********************************  POS ID: ########
• Line  1: MID: ###########
• Line  2: EVIDENCDE OF SALE NO: ######
• Line  3:        C O N F I R M A T I O N   O F
                  C A N C E L A T I O N
• Line  4: FOR EVIDENCDE OF SALE NO: ######
• Line  5: @@@@@@@@@@@@@@@  VALID UNTIL: ###########
             * * * * * * * * * * * * * * * * * * * * * *
• Line  6:  S A L E :   # # # # # # # # # # # # #
• Line  7: TIP:                            ..........
• Line  8: TOTAL:                          ..........
• Line  9:  P R E - A U T . :   # # # # # # # # # # # #
• Line 10:  C L O S I N G   T H E   P R E - A U T .
• Line 11:  Q U O T E :      # # # # # # # # # # # # #
```

- Line 12: C A S H :   # # # **# # # # # # # # # #**
- Line 13: R E T U R N :   # # # **# # # # # # # # # #**
- Line 14:   C A N C E L A T I O N
- Line 15: CANCELLED TRANSACTION
- Line 16: PLEASE DEBIT MY ACCOUNT
- Line 17: PLEASE CREDIT MY ACCOUNT
- Line 18: SIGNATURE OF THE OWNER OF THE CARD
- Line 19: ....
- Line 20:   A C C O R D A B L E P I N
- Line 21: AUTHORIZATION CODE: **********__**********__
- Line 22: DATE: ##**########** HOUR: ###**#####** CASH REGISTER: #**##**
- Line 23: INFORMATION:
          *******__********************************__
          *******__********************************__
          *******__********************************__
- Line 24:   COPY
- Line 25: -------------- NO AUTHORIZATION ----------------
          *******__***********************************__
- Line 26: -------------- NO AUTHORIZATION ----------------
            * * *
- Line 27: No.of document: ....
- Line 28: THANK YOU FOR YOUR VISIT
- Line 29: PLEASE TAKE THE RECEIPT
- Line 30: -------------- WE APOLOGIZE ------------------

- Line 31:   C A R D   A C C E P T A N C E
- Line 32: MSG NO: ######
- Line 33: @@@@@@@@@@@@@@@@@@   VALID TO: ##########
          ****
- Line 34: TIP: **************
- Line 35: TOTAL: **************
- Line 36: TRANS. NO: ######
- Line 37:   R E C I P T
- Line 38:   O F V O I D
- Line 39: FOR TRANSACTION NO: ######
- Line 40: @@@@@@@@@@@@@@@@   EXP.: ##########
            *
- Line 41: P U R C H A S E :   # # # # # # # # # # # # #
- Line 42: TIP: ....
- Line 43: TOTAL: ....
- Line 44:   C O M P L E T I O N
- Line 45:   A M O U N T :   # # # # # # # # # # # # #
- Line 46:   CASH :   # # # # # # # # # # # # #
- Lin 47:   R E F U N D :   # # # # # # # # # # # # #
- Line 48:   V O I D
- Line 49: TRANSACTION VOIDED
- Line 50: PLEASE CREDIT MY ACCOUNT
- Line 51: PLAESE DEBIT MY ACCOUNT
- Line 52: SIGNATURE OF CARDHOLDER
- Line 53:   P I N V E R I F I E D
- Line 54: AUTHORIZATION CODE: ********************
- Line 55: DATE: ########## TIME: ######## CASHIER: ###
- Line 56: INFORMATIONS:
          ****
          ****
          ****
- Line 57:   C O P Y
- Line 58:   --- TRANSACTION REJECTED ---
          ****
- Line 59:   --- TRANSACTION REJECTED ---
            * * * * * * * * * * * * * * * * * * *
- Line 60: Cardholder id.:   ....
- Line 61: THANK YOU FOR VISIT
- Line 62: PLEASE KEEP RECEIPT
- Line 63:   --- SORRY ---
- Line 64:   A C C E P T A N C E O F A M O U N T
- Line 65: @@@@@@@@@@@@@@@@ EXP.:##########
          ****

- Line 66: TIP: **************
- Line 67: TOTAL: **************
- Line 68: Merchant Currency   **************
- Line 69: T A X :   # # # # # # # # # # # #
- Line 70: Exchange Rate*: ########   *** it is a reference,**
not argument
- Lin 71: Exchange Rate*: #### @@@ = ######### @@@   *** it is a reference,**
not argument
- Line 72: Commission: ##### @@@ or #####%
- Line 73: Commission: ####### @@@
- Line 74: Fee/Mark-Up: #####%%
- Line 75: Transaction Currency   **************
- Line 76: This currency conv. serv. is provided by
              ****
- Line 77:   I recognize that I was given a choice
- Line 78:   of payment currencies and that I could
- Line 79:   have paid in @@@. I accepted the
- Line 80:   Exchange Rate used to perform the
- Line 81:   currency conversion and that my
- Line 82:   decision to paid in @@@ is final.
- Line 83: *Exchange Rate is based on   *** is it a symbol of**
footnote, not argument
              ****
- Line 84: Wholesale Rate as at #########.
- Line 85: STATEMENT:
              @@
              @@
              @@
- Line 86: FOR RECEIPT ****************
- Line 87: @@@@@@@@@@@@@@@@ (##) (#)
- Line 88: ###### #### (##)   *****
- Line 89: AID: ***********************************
- Line 90: TC: ***********************************
- Line 91: STATUS: ********************
- Line 92: C O M P L E M E N T
- Line 93: COMMERCIAL CODE   ***************************
- Line 94: ADDITIONAL DATA: ***************************
- Line 95: W I T H D R A W A L : # # # # # # # # # # #
- Line 96:!! T H A N K   Y O U   F O R   Y O U R   V I S I T !!
              KEEP TRANSACTION'S EVIDENCE
- Line 97: -------------- NO AUTHORIZATION --------------
              *
              *
              *
- Line 98: -------------------- ERROR --------------------
              *
              *
              *
- Line 99:   D E M O   M O D E
- Line 100:   P I N   C O D E   A C C O R D A B L E
- Line 101: C O M M I S S I O N: # # # # # # # # # # #
- Line 102: F E E :   # # # # # # # # # # # # #
- Line 103: AUTHORIZATION:**********   *******
- Line 104: CUSTOMER KNOWS THE PROCEDURE OF GOODS RETURN
- Line 105: DATE: ######### HOUR .: ######## CASHIER: ###
- Line 106: T I P :   # # # # # # # # # # # #
- Line 107: T O T A L :   # # # # # # # # # # # #
- Line 108: AGENT NO.   *********************************
- Line 109: POLICY NO. *********************************
- Line 110: BALANCE: ############
- Line 111: Please debit my account
- Line 112: UID: #
- Line 113: MID: ########   BILL NO: ########
- Line 114:   PIN CODE VERIFIED
- Line 115:   BILL FOR CUSTOMER
- Line 116: ************************   PSN: **
- Line 117: *********************   VALID TO: ##/##
- Line 118: ATC: ########

```
               1234567890123456789012345678901234567890123456789012345678
```

3.11.5.48. Printout No. 102 – Confirmation / Cancellation of telecode sale / prepaid.

```
• Header  0:      CONFIRMATION OF TELECODE SALE
• Header  1:      CANCELLATION OF TELECODE SALE
• Header  2:      CONFIRMATION OF PREPAID
• Header  3:      CANCELLATION OF PREPAID SALE


               1234567890123456789012345678901234567890123456789012345678
• Line  0: ADDRESS OF POINT:
               ****************************************
               ****************************************
               ****************************************
• Line  1: CASH REGISTER: ###  CASHIER: @@@@@@@@@@
• Line  2: DATE: #########  HOUR: ##########
• Line  3: TID:  #########  PID: ###############
• Line  4: UID:  ##############################
• Line  5: PAYMENT FOR:**************************************
• Line  6: CODE: ************************************
               ****************************************
• Line  7: VALUE                   ###################
• Line  8: BONUS                   ###################
• Line  9: PAYMENT                 ###################
• Line 10: TOTAL TO BE PAYED       ###################
• Line 11: PAYMENT                 ###################
• Line 12: CHANGE                  ###################
• Line 13: No OF OPERATION ###################
• Line 14: No OF SERIES    ##################
• Line 15: INFORMATION:
               ****************************************
               ****************************************
               ****************************************
• Line 16: ORIGINAL
• Line 17: COPY
• Line 18: ATTENTION! **************************************
• Line 19: TERMINAL:   *******************
• Line 20: SALESMAN: *******************
• Line 21: CARD: ****************************************
• Line 22: TELECODE: ********************************
• Line 23: DATE OF VALIDITY: #########
• Line 24: INSTRUCTION :*********************************
• Line 25: INFORMATION :*********************************
• Line 26: No OF SALE EVIDENCE: ****************
• Line 27: UPLOADING CODE: *****************************
• Line 28: FOR: ***********************************
• Line 29: TELEPHONE No: ###################
• Line 30: CONFIRMATION OF UPLOADING BY SMS
• Line 31:    I confirm the correctness of the telephone number
• Line 32:          .......................
• Line 33:               signature of the Customer

• Line 34:                BILL NO:  ########
• Line 35:        ****************************************
               *****************************************
               *************************** TID: ########
• Line 36: TELECARD           * * * * * * * * * * *
• Line 37: Operator's name:        @@@@@@@@@@@@@@@@@@@@@
• Line 38: Credit account for:            $ ***********
• Line 39: Transaction ID:                ***********
• Line 40: INSTRUCTION:\n *****************************************
               *****************************************
               *****************************************
               *****************************************
               *****************************************
```

3.11.5.49. Printout No. 103 – Confirmation / Cancellation of the payment for the receipt.

```
• Header  0:      CONFIRMATION OF THE PAYMENT FOR THE RECEIPT
• Header  1:      CANCELLATION OF THE PAYMENT FOR THE RECEIPT

               12345678901234567890123456789012345678
• Line   0: ADDRESS OF THE POINT:
               **************************************
               **************************************
               **************************************
• Line   1: CASH REGISTER: ###  CASHIER: @@@@@@@@@@
• Line   2: DATE: #########  HOUR: ##########
• Line   3: TID:  #########  PID: ###############
• Line   4: UID:  ###############################
• Line   5: PAYMENT FOR:*********************************####
• Line   6: CODE: *******************************####
               ******************************####
• Line   7: VALUE                   ###################
• Line   8: BONUS                   ###################
• Line   9: PAYMENT                 ###################
• Line  10: RATES                   ###################
• Line  11: NUMBER OF ACCOUNTS      ###################
• Line  12: PAYMENTS                ###################
• Line  13: TOTAL TO BE PAID        ###################
• Line  14: PAYMENT                 ###################
• Line  15: CHANGE                  ###################
• Line  16: No OF OPERATION ###################
• Line  15: INFORMATION:
               **************************************
               **************************************
               **************************************
• Line  16: ORIGINAL
• Line  17: COPY
• Line  20: ATTENTION! *******************************###
• Line  21: INFORMATION :*******************************####
• Line  22: No OF SALE EVIDENCE: *******************
```

3.11.5.50. Printout No. 104 – Loyalty transaction.

```
• Header  0:          ACKNOWLEDGEMENT OF POINTS
• Header  1:          CANCELLATION OFPOINTS
• Header  2:          GIVING AWAY THE GIFT
• Header  3:       CANCELLATION OF GIFT GIVING AWAY
• Header  4:           POINTS STATUS

• Header 5:         CORRECTION
• Header 6:         CANCELLATION
• Header 7:         CUMULATION
• Header 8:         GIFT
• Header 9:         CHECKING OUT


               12345678901234567890123456789012345678
• Line   0: ADDRESS OF THE POINT:
               **************************************
               **************************************
               **************************************
• Line   1: CASH REGISTER: ###  CASHIER: @@@@@@@@@@
• Line   2: DATE: #########  HOUR: ##########
• Line   3: TID:  #########  PID: ###############
• Line   4: UID:  ###############################
• Line   5: CARD: ###############################
• Line   6: QUANTITY OF POINTS: ###################
• Line   7: POINTS FOR: *****************************####
• Line   8: POINTS TOTAL:           ###################
```

- Line 9: GIFT: ********************
- Line 10: STATUS OF POINTS: ####################
- Line 11: FOR: ***************************************
- Line 12: No OF OPERATION   ####################
- Line 13: PARAMETERS: ####################
- Line 14: GROUP OF CUSTOMERS: ####################
- Line 15: GROUP
- Line 16: INFORMATION:
         ****
         ****
         ****
- Line 17: ORIGINAL
- Line 18: COPY
- Line 19: ATTENTION! **
- Line 20: ---
- Line 21:   C A N C E L L A T I O N

- Line 22: AUTHORIZATION CODE: ************
- Line 23: QUOTA OF PURCHASE: ###################
- Line 24: NO.OF CANCELLED TRANSACT: ############
- Line 25: TRANSACTION TYPE: @@@@@@@@@@@@@@@@
- Line 26: SIGNATURE:
- Line 27:   --
- Line 28: ADVERTISEMENT:
         ****
         ****
         ****
- Line 29: POINTS FOR QUOTA: ####################
- Line 30: POINTS FOR PROMOTION: ####################
- Line 31: POINTS FOR TIME: ####################
- Line 32: POINTS FOR VISIT: ####################
- Line 33: CARD: ##################################
- Line 34: GIFT: ********************
- Line 35:   ARTICLE   QUANTITY/VALUE   POINTS
- Line 36: ***************   *************   **********
- Line 37: NO. OF SALE EVIDENCE: #################

3.11.5.51. Printout No. 105 – Parameters of loyalty scheme / customer's card.

- Header 0:   PARAMETERS OF LOYALTY DRAFT
- Header 1:   PARAMETERS OF CUSTOMER'S CARD

- Header 2:   PARAMETERS OF CUSTOMER REGISTRATION

         12345678901234567890123456789012345678901234567890
- Line 0: ADDRESS OF THE POINT:
         ****
         ****
         ****
- Line 1: CASH REGISTER: ### CASHIER: @@@@@@@@@@
- Line 2: DATE: ######### HOUR: ###########
- Line 3: TID: ######### PID: ###############
- Line 4: NAME: *************************************
- Line 5: VALID FROM: ##########
- Line 6: VALID UNTIL: ##########
- Line 7: ADVERTISEMENT: ***********************************
- Line 8: PAN DIGITS: ###################
- Line 9: GROUP: ********   ******************************
- Line 10: LIST OF ITEMS: *****************************
- Line 11: ARTICLE: **********************************
- Line 12: COEFFICIENT: ###################
- Line 13: SUMMING UP: ###################
- Line 14: INDEX: ###################
- Line 15: LIST OF GIFTS: ###################
- Line 16: LIST OF GIFTS: *******************************
- Line 17: GIFT: ***********************************

- Line 18: POINTS: ***************************************

- Line 19: PARAMETERS OF OPERATION: ****************************

- Line 20: PARAMETER: ***********************************

- Line 21: --

3.11.5.52. Printout No. 106 – Giving out the gift.

- Header 0:   REPORT OF LOYALTY TRANSACTION

          12345678901234567890123456789012345678
- Line 0: SPECIFIED
- Line 1: SUMMARIC
- Line 2: ADDRESS OF POINT:
          ****
          ****
          ****
- Line 3: CASH REGISTER: ### CASHIER: @@@@@@@@@@
- Line 4: DATE: ######### HOUR: ##########
- Line 5: TID: ######### PID: ###############
- Line 6: NAME: ***********************************
- Line 7: FROM: ##########
- Line 8: TO: ##########
- Line 9: DATE HOUR: ###################
- Line 10: No: ##################
- Line 11: TRANSACTION: ***********************************
- Line 12: CARD: ************************************
- Line 13: GROUP: ***********************************
- Line 14: PARAMETERS: ***********************************
- Line 15: POINTS: ###################
- Line 16: POINTS FOR: ***********************************
- Line 17: GIFT: ***********************************
- Line 18: QUANTITY: ####################
- Line 19: --
- Line 20: IMPORTANT TRANSACTIONS:

- Line 21: CANCELLED TRANSACTIONS:

- Line 22: CUMULATION: ###################
- Line 23: QUOTA: ###################
- Line 24: PROMOTION: ###################
- Line 25: TIME: ###################
- Line 26: VISIT: ###################
- Line 27: CHECKING OUT: ###################
- Line 28: GIFT: ###################
- Line 29: CORRECTION: ###################
- Line 30:   (+)   ###################
- Line 31:   (-)   ###################
- Line 32: BALANCE: ###################
- Line 33:   ARTICLE   QUANTITY/VALUE   POINTS
- Line 34: ****************   *************   *********

3.8.4.53. Printout No. 107 – Report of notarial fees.

- Header 0:   REPORT OF NOTARIAL FEES.

          12345678901234567890123456789012345678
- Line 0: --
- Line 1: DATE: #########
- Line 2: FEE: ***********************
- Line 3: PAYMENTS: ***********************
- Line 4: LEFT: ***********************
- Line 5: CHANGE: ***********************

3.11.5.54. Printout No. 108 – Receipt of payment by card.

- Header 0:   CONFIRMATION OF TRANSACTION
- Header 1:   CONFIRMATION OF PRE-AUTHORIZATION
- Header 2:   CONFIRMATION OF CANCELLING
- Header 3:   CONFIRMATION OF AUTHORIZATION REJECTION

```
          12345678901234567890123456789012345678
- Line  0: Centre of authorization:      ********************
- Line  1: Cash regist. ###              Cashier: #######
- Line  2: No.of sale evidence:             ##############
- Line  3: TID: ########            UID: ###############
- Line  4: TID: ########            MID: ###############
- Line  5: Payment for bill No.:        ******************
- Line  6: For:          @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line  7: Card:  *************************      PSN:**
- Line  8: #####################        Valid to: ##/##
- Line  9: PRE-AUT.:                     ######### PLN
- Line 10: SALE:                         ######### PLN
- Line 11: REFUND:                       ######### PLN
- Line 12: CASH:                         ######### PLN
- Line 13: PAYMENT:                      ######### PLN
- Line 14: TOTAL:                        ######### PLN
- Line 15: In words:      *****************************
- Line 16:                *****************************
- Line 17:          Please, debit my account
- Line 18:           Please, credit my account
- Line 19:           TRANSACTION INVALID
- Line 20:            TRANSACTION CANCELLED
- Line 21:         FINISHING PREAUTHORIZATION
- Line 22:         TRANSACTION REGISTERED
- Line 23:          PIN CODE VERYFIED
- Line 24:          .....................
- Line 25:          Signature of card owner
- Line 26: System message:   ********************
- Line 27:         ***************************************
- Line 28:         ***************************************
- Line 29: Authorization code:          ***********
- Line 30: Commercial Code      *********************
- Line 31: Additional data:     *********************
- Line 32: ****[****]:        *************************
- Line 33:                    *************************
- Line 34: No. of Identity Card:       ..................
- Line 35: Points for transaction           #########
- Line 36: Points after transaction         #########
- Line 37: Quota on the card:               ##########
- Line 38:                  ORIGINAL
- Line 39:                   COPY
```

3.11.5.55. Printout No. 109 – DCC Receipt

- Header 0:   TRANSACTION CONFIRMATION
- Header 1:   PRE-AUTHORIZATION CONFIRMATION
- Header 2:   CANCELLATION CONFIRMATION
- Header 3:   DECLINATION CONFIRMATION

```
          12345678901234567890123456789012345678
- Line  0: Acquirer/Processor:          *******************
- Line  1: ECR no: ### Cashier: #######
- Line  2: Receipt number:              ##############
- Line  3: TID: ########              UID: ###############
- Line  4: TID: ########              MID: ###############
- Line  5: Invoice number:              ******************
- Line  6: For:             @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line  7: Card: *********************** PSN:**
- Line  8: *********************          Valid date:##/##
- Line  9: PRE-AUT.:######### PLN
```

- Line 10: SALE: ######## PLN
- Line 11: REFUND: ######## PLN
- Line 12: In words: ****************************
- Line 13:   ****************************
- Line 14: Fx rate: 1 *** = ########### PLN
- Line 15: Trans.currency: ######### ***
- Line 16: DCC service provided by   ****************
- Line 17: Statement: ***************************
- Line 18:   **************************************
- Line 19:   **************************************
- Line 20:   **************************************
- Line 21:   **************************************
- Line 22:   **************************************
- Line 23:   **************************************
- Line 24:   **************************************
- Line 25:   **************************************
- Line 26:   Please debit my account
- Line 27:   Please credit my account
- Line 28:   TRANSACTION CANCELLED
- Line 29:   TRANSACTION REJECTED
- Line 30:   COMPLETION
- Line 31:   OFF-LINE
- Line 32:   PIN VERIFIED
- Line 33:   ....
- Line 34:   Signature
- Line 35: System message: **********************
- Line 36:   ***********************************
- Line 37:   ***********************************
- Line 38: Authorization code: ***********
- Line 39: Commercial Code   **********************
- Line 40: Extra data: **********************
- Line 41: ****[****]:   **************************
- Line 42:   **************************
- Line 43: Document ID: ....
- Line 44: Points for transaction: ########
- Line 45: Points after transaction: ########
- Line 46: Amount on the card: ##########
- Line 47:   ORIGINAL
- Line 48:   COPY

3.11.5.56. Printout No. 110 – Opening / closing the drawer.

- Header 0:   OPENING DRAWER
- Header 1:   CLOSING DRAWER
- Header 2:   BRAKE
- Header 3:   END OF BRAKE
- Header 4:   BANKING TRANSFER
- Header 5:   CHECKING THE CASH
- Header 6:   STATE OF CASH
- Header 7:   PAYMENT TO THE CAH REGIST. (DRAWER)

```
        12345678901234567890123456789012345678901234678
```
- Line 0: --
- Line 1: Cash reg. No   ####   No. of cashier ######
- Line 2: Date   ########   Hour   ########
- Line 3: --
- Line 4: Initial content of drawer   ###########
- Line 5: Cash   ###X####### ###########
- Line 6: Card @@@@@@@@@@   ###X####### ###########
- Line 7: Voucher @@@@@@@@@@   #X####### ###########
- Line 8: Coupon @@@@@@@@@@   ###X####### ###########
- Line 9: Cheque @@@@@@@@@@   ###X####### ###########
- Line 10: Cred. @@@@@@@@@@   ###X####### ###########
- Line 11: Others @@@@@@@@@@   ###X####### ###########
- Line 12: Transfer @@@@@@@@@@   ###X####### ###########
- Line 13: Total declared   ###########
- Line 14: Total differences   ###########
- Line 15: Value added to the cash regist.   ###########

```
• Line 16: Total deleted                      ##########
• Line 17: Total transferred                   ##########
• Line 18: Total                               ##########
• Line 19: Comment:          @@@@@@@@@@@@@@@@@@@@@@@@@@
```

3.11.5.57. Printout No. 111 – Payment for the receipt.

```
• Header 0:              Confirmation of payment
• Header 0:         Confirmation of payment annulling

          12345678901234567890123456789012345678
• Line  0: Cash reg. No: ###              Cashier: #######
• Line  1: Data: ##########               Hour:    #####
• Line  2: TID: ########             MID: ###############
• Line  3: No. of payment:      ************************
• Line  4: No. of transaction:   ************************
• Line  5: Control No.:
• Line  6:            ***********************************
• Line  7: Bar code:       ########################
• Line  8:            ###############################
• Line  9: Invoice issuer:      ********************
• Line 10: No. of invoice:     ***********************
• Line 11: No. of customer:    **************************
• Line 12: Title:        @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
• Line 13:              @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
• Line 14: Term of payment:              ##########
• Line 15: Value: PLN                     ##########
• Line 16: Discount: PLN                  ##########
• Line 17: Interest: PLN                  ##########
• Line 18: Charge: PLN                    ##########
• Line 19: Total to pay: PLN              ##########
• Line 20: In words:     @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
• Line 21:              @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
• Line 22: Due amount paid: by cash
• Line 23: Due amount paid: by credit card
• Line 24: No. of card:     ##############################
• Line 25: System message:
• Line 26:      @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
• Line 27:      @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
• Line 28:                   ORIGINAL
• Line 29:                     COPY
```

3.11.5.58. Printout No. 112 – Discount coupon.

```
• Header 0:            DISCOUNT COUPON

          12345678901234567890123456789012345678
• Line  0: Coupon to receipt: ###### ########## #####
• Line  1: Promoted goods              Amount of bonus
• Line  2: ---------------------------------------------
• Line  3: ***********************       ##########
• Line  4: ---------------------------------------------
• Line  5: TOTAL                         ##########
• Line  6:               ###################
• Line  7: Valid          ########## - ##########
• Line  8: BAR CODE OPTIONALLY (!)
• Line  9:       Without bar code
```

3.11.5.59. Printout No. 120 – Granting points / Loyalty system / Giving away a gift / Ordering a gift / Giving away an ordered gift / Account balance \"VITAY" program\

```
• Header 0:
• Header 1: Granting points \"VITAY\"
• Header 2: Loyalty system  \"VITAY\"
```

- Header 3: Giving away a gift \"VITAY\"
- Header 4: Ordering a gift \"VITAY\"
- Header 5: Giving away ordered gift \"VITAY\"
- Header 6: Account balance \"VITAY\"
                12345678901234567890123456789012345678901234
- Line 0:   **
                  ****
                  ************************** TID: ########
                MID: ########## >   STA ID: ########
- Line 1:   Account No: ####################
- Line 2:   \"VITAY\"
- Line 3: GRANTING POINTS
- Line 4: PKN ORLEN S.A.
- Line 5: Card number:\n   ########################
- Line 6: (VITAY)
- Line 7: Amount: **********
- Line 8: Number of cash account
            ##########
- Line 9:   FOR BUYING IN THIS SHOP WAS GRANTED
- Line 10: Points: ##########
- Line 11: Points: ##########
- Line 12: Sum of points on card: ###########
- Line 13: DATE: #########   HOUR: ########
- Line 14: THANKS FOR VISITING US
- Line 15: KEEP EVIDENCE OF GIVING AWAY
- Line 16: GIVING AWAY GIFT
- Line 17: Gift name: **************************
- Line 18:   * * * * * * * * * * * * * * * * * *
- Line 19: Number of units taken away: ########
- Line 20: Points taken away: ##########
- Line 21:   # # # # # # # # # #
- Line 22: Authorization code: ##########
- Line 23: ORDERING GIFT
- Line 24: Number of ordered units: ########
- Line 25: Number of order in ECR: ###########
- Line 26: GIVING AWAY ORDERED GIFT
- Line 27: Card No:\n################### Valid to: **********
- Line 28: (TEMPORARY)

3.11.5.60. Printout No. 121 - Program fleet / selling on card dkv / card open drive / card wog / card tank bank type 2

- Header 0:
- Header 1: FLEET Program
- Header 2: Selling on card DKV
- Header 3: CARD OPEN DRIVE
- Header 4: CARD WOG
- Header 5: CARD TANK BANK TYPE 2
            12345678901234567890123456789012345678901234
- Line 0:   **
              ****
              ************************** TID: ########
               MID: ########## >   STA ID: ########
- Line 1:   Card No: Account No: ########
              ################### >Valid to: **********
- Line 2:   Car No: ***********
- Line 3:   Counter state: ########
- Line 4:   MPK parameter: ********************
- Line 5:   FLEET PROGRAM
- Line 6:   EVIDENCE OF GIVING AWAY
- Line 7:   Quota: ***********
- Line 8:   No of group: ########
- Line 9:   Amount: ***********
- Line 10:   Authorization code: ###########
- Line 11:   PLEASE DEBIT MY ACCOUNT
- Line 12:   PIN CODE CORRECT

- Line 13:   DATE: ##########   HOUR: ########
- Line 14:   THANKS FOR VISITING US
- Line 15:   KEEP EVIDENCE OF GIVING AWAY
- Line 16:   Value: ************
- Line 17:   BILL FOR COMPANY
- Line 18:   SALE ON CARD DKV
- Line 19:   PKN ORLEN S.A.
- Line 20:   OPEN DRIVE CARD
- Line 21:   BILL FOR THE CUSTOMER
- Line 22:   Card No: Account No: ########
           ####################
- Line 23:   CARD ************
- Line 24:   Transaction No: ########
- Line 25:   Transaction status: *******************
- Line 26:   Current quota limit: ************
- Line 27:   Account re-charging
- Line 28:   Card No: ##################\n Valid to: **********
- Line 29:   VERIFIED CARD
- Line 30:   Limit for group **:   *******************
- Line 31:   Quota limit: *******************
- Line 32:   Accessible non-fuel assortment:\n*******************

3.11.5.61. Printout No. 122 – Transmission report / daily settlement of payment transactions / transmission report online / transmission report vitay / courses dcc / flx diagnostics / flo diagnostics / vitay diagnostics / total report / report dcc / application parameters / daily report

- Header 0:
- Header 1: TRANSMISSION REPORT
- Header 2: DAILY SETTLEMENT OF PAYMENT TRANSACTIONS
- Header 3: TRANSMISSION REPORT ONLINE
- Header 4: TRANSMISSION REPORT VITAY
- Header 5: COURSES DCC
- Header 6: FLX DIAGNOSTICS
- Header 7: FLO DIAGNOSTICS
- Header 8: VITAY DIAGNOSTICS
- Header 9: TOTAL REPORT
- Header 10: REPORT DCC
- Header 11: APPLICATION PARAMETERS
- Header 12: DAILY REPORT
           12345678901234567890123456789012345678901234
- Line 0:   POS ID: ############
- Line 1: UID: ##########
- Line 2: COLLECTION NO: ########
- Line 3: START: *******************
- Line 4: END: *******************
- Line 5: RESPONSE: *******************
- Line 6: SETTLEMENT TRANSACTIONS
- Line 7: UPDATE:
- Line 8: VERSION: **************   #### **********
- Line 9: #### # #### **** **** **** ####   **********
- Line 10: ****** *************************
- Line 11: NUMBER ***:   #   QUOTA ***:   **********
- Line 12: AMOUNT NET: #   QUOTA NET: **********
- Line 13: DATE: ##########   HOUR: ########
- Line 14:   **
           ****
           ************************ TID: ########
           MID: ########## >STA ID: ########
- Line 15: NO DAILY SETTLEMENTS
- Line 16: Transmission Start: *******************
- Line 17: Transmission End: *******************
- Line 18: VITAY: @@@@@@@@@@@@@@@@@@@@
- Line 19: Fleet: @@@@@@@@@@@@@@@@@@@@
- Line 20: UTA: @@@@@@@@@@@@@@@@@@@@
- Line 21: DKV: @@@@@@@@@@@@@@@@@@@@
- Line 22: IFC: @@@@@@@@@@@@@@@@@@@@
- Line 23: UTA SETTLEMENTS

- Line 24: Balance according to EFT terminal:
- Line 25: SALE
- Line 26: Number: ####   Value: **********
- Line 27: SALE CANCELLATION
- Line 28: Balance according to Accounting Centre:
- Line 29: File No: ############
- Line 30: SETTLEMENTS DKV
- Line 31: RETURN CANCELLATION
- Line 32: FLEET SETTLEMENTS
- Line 33: RETURN
- Line 34: IFC SETTLEMENTS
- Line 35: VITAY SETTLEMENTS
- Line 36: REDEMPTIONS
- Line 37: REDEMPTION CANCELLATION
- Line 38: GRANTING POINTS
- Line 39: GRANTING POINTS CANCELLATION
- Line 40: Number: ####   Points: **********
- Line 41: REDEMPTIONS CANCELLATION
- Line 42: Courses table No: #### from day **********
- Line 43: @@@   ########   ********** PLN
- Line 44: Last accessible course for day: **********
- Line 45: Currency   Date   Course
- Line 46: CURRENTC COURSES
- Line 47: @@@@@@@@@@@@@@@@@@@@@@@@@
- Line 48: NO ##:   Version: ####
- Line 49: @@@@@@@@@@@@ NUMBER ### QUOTA   **********
- Line 50: TankBank: @@@@@@@@@@@@@@@@@@@@
- Line 51: Version pinpad.out: **********
- Line 52: Config. of pinpad: **********
- Line 53: Version Orlen.out: **********
- Line 54: Version of payment: **********
- Line 55: Version of configuration: **********
- Line 56: @@@@@@@@@@ TID: **********
- Line 57: @@@@@@@@@@ MID: **********
- Line 58: Code of pinpad: **********
- Line 59: Name of key: @@@@@@@@@@@@@@@@@@@@
- Line 60: Version of list No ##:   ####

3.11.5.62. Printout No. 123 – Takings transfer, withdrawal from cash drawer

- Header 0: Takings transfer withdrawal from cash drawer
          12345678901234567890123456789012345678901234
- Line 0:   Takings transfer No\ n| *
- Line 1:   ID of cash regist.: ****************************
- Line 2:   Date of issuing: ********************
- Line 3:   Form of payment: @@@@@@@@@@@@@@@@@@@@@@@
- Line 4:   WN: ********************
- Line 5:   MA: ********************
- Line 6:   Balance aft.transaction:********************
- Line 7:   Issuer: ********************
- Line 8:   I've received above quota ....

3.11.5.63. Printout No. 170 – Return confirmation

- Header 0:   RETURN CONFIRMATION
- Header 1:
          12345678901234567890123456789012345678901234678
- Line 0: RETURN: ********************   #############
- Line 1:   TOTAL   ###########
- Line 2: CURRENCY
- Line 3: TARGET PORT: ***
- Line 4: BOARDING PASS NO: *******************
- Line 5: FLIGHT NO: *******************
- Line 6: TICKET NO: *******************
- Line 7: TRANSIT PORT: ***
- Line 8: BOARDING PASS NO: *******************
- Line 9: FLIGHT NO: *******************

- Line 10: TICKET NO: *********************
- Line 11: CURRENCY: *********************

Warning: Operated only in Delio Free E 3.10

3.11.5.64. Printout No. 180 - Confirmation\x1f of issuing a gift card / a discount card / a special card / an occasional card / an article – complaint / Confirmation\x1fof receiving a gift card / a discount card / a special card / an occasional card / an article – complaint / Confirmation\x1fof exchanging a gift card / a discount card / a special card / an occasional card / an article exchanging

- Header 0: CONFIRMATION\x1FOF ISSUING A GIFT CARD
- Header 1: CONFIRMATION\x1FOF ISSUING A DISCOUNT CARD
- Header 2: CONFIRMATION\x1FOF ISSUING A SPECIAL CARD
- Header 3: CONFIRMATION\x1FOF ISSUING AN OCCASSIONAL CARD
- Header 4: CONFIRMATION\x1FOF ISSUING AN ARTICLE - COMPLAINT
- Header 5: CONFIRMATION\x1FOF RECEIVING A GIFT CARD
- Header 6: CONFIRMATION\x1FOF RECEIVING A DISCOUNT CARD
- Header 7: CONFIRMATION\x1FOF RECEIVING A SPECIAL CARD
- Header 8: CONFIRMATION\x1FOF RECEIVING AN OCASSIONAL CARD
- Header 9: CONFIRMATION\x1FOF RECEIVING AN ARTICLE - COMPLAINT
- Header 10: CONFIRMATION\x1FOF EXCHANGING A GIFT CARD
- Header 11: CONFIRMATION\x1FOF EXCHANGING A DISCOUNT CARD
- Header 12: CONFIRMATION\x1FOF EXCHANGING A SPECIAL CARD
- Header 13: CONFIRMATION\x1FOF EXCHANGING AN OCCASSIONAL CARD
- Header 14: CONFIRMATION\x1FOF AN ARTICLE EXCHANGE
               12345678901234567890123456789012345678901234
- Line   0: TRANSACTION NO: ###############
- Line   1: DATE OF CARD ISSUING: ##########
- Line   2: CARD VALIDITY DATE: ###############
- Line   3: CARD NAME: @@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@@
- Line   4: CARD NUMBER: #################
- Line   5: RECEIPT NUMBER: ################
- Line   6: ARTICLE NAME: @@@
- Line   7: CODE: ######################
- Line   8: PRICE: ################
- Line   9: VALUE: ###############
- Line 10: CURRENCY: *******************
- Line 11: NO. OF ADDED POINTS: *******************
- Line 12: NO. OF POINTS ON CARD: *******************
- Line 13: SUMMARY: ##########################
- Line 14: PAID: #############
- Line 15: TOTAL: #############
- Line 16: MEAN OF PAYMENT: ****************************
- Line 17: QUOTA: ################################
- Line 18: ACCOUNT: ##################################
- Line 19: CHANGE: #################################
               12345678901234567890123456789012345678901234

3.11.5.65. Printout No. 190 - Woodsman

- Line   0: [Woodsman******************************

- Line   1:   Voucher No: ***********
- Line   2: to fiscal receipt No: ##########
- Line   3: Forrest District:**********************
- Line   4: Address: *********************
- Line   5: Name of Forr.District:**********************
- Line   6: Forrest address: *********************
- Line   7: Date of issuing: *********************
- Line   8: Kind of order: *********************
- Line   9: Buyer: *********************
- Line 10: Buyer address: *********************
- Line 11: Term of removal: *********************
- Line 12:   WOD |Address |Number|Article| Mass
- Line 13: ***********|******|#####|***/***|#####

```
• Line  14: Species |   Article   |Amount
• Line  15:   *****|***********|######
• Line  16: Total: ############
• Line  17: Discount: #####
• Line  18: Document issuer:   ********************
• Line  19: Signature:
• Line  20: ......................................
• Line  21: FSC: ********************************
              ********************************
              ********************************


• Line  22: continue************************
              ********************************
              ********************************


• Line  23: I've read conditions of sale and purchase transaction
            described by the manager of the Point in letter from
            ********** year, and know them and I accept them.
• Line  24: Buyer signature:
• Line  25: Removal:
• Line  26: Date of removal:        Mass [m3]:
• Line  27: Issuer signature:
            12345678901234567890123456789012345678901234
```

3.11.5.67. Printout No. 195 - A*D*V*E*R*T*I*S*E*M*E*N*T

```
• Line   0: ***********A*D*V*E*R*T*I*S*E*M*E*N*T*********
              ***************************************
              ***************************************
              ***************************************
              ***********A*D*V*E*R*T*I*S*E*M*E*N*T*********
• Line   1: Device:
              * * * * * * * * * * * * * * * * * * * * * *
              * * * * * * * * * * * * * * * * * * * * * *
              * * * * * * * * * * * * * * * * * * * * * *


• Line   2: Price: ########## $    #####%% VAT: ####### $
• Line   3: Enter code:
              # # # # # # # # # # # # # # # # # # # # # #


• Line   4: Valid to: ######### #####
              ***************************************
              ***************************************
              ***************************************
```

3.11.5.68. Printout No. 200 – NON-FISCAL PRINTOUT

```
• Header 0: NON-FISCAL PRINTOUT
• Header 1:
            12345678901234567890123456789012345678901234
• Line   0:   ***************************************
• Line   1: *****************************************
• Line   2:  ***************************************
```

3.12. Non-fiscal printouts – special lines.

There can be printed special lines on each non-fiscal printouts.
Line 249: Print of „QRCode" (data from the first packet field are printed in graphic form)
Line 250: Print of graphic elements (graphic elements are printed based on numeric identifier placed in the first packet field)
Line 251: Reserved.

Line 252: Print of bar code (data from the first packet field are printed in graphic and text form)
Line 255: Print of empty line.

3.13. QRCode/QR code operating.

Restrictions:
Length of text – up to **120 characters**
QRCode on non-fiscal printout is limited up to 1852 B
Maximum operated version of QR Cod: **9**
Maximum resolution **53** (x scale)
Operated characters:
   '0' .. '9'
   'A' .. 'Z'
   ' ' , '$' , '%' ,'*' , '+' , '-' , '.' , '/' , ':'

3.14. Sequences of animation operating (@A)

Restrictions:
Operated by **HDE fiscal printer.**

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Function	0..99	;	variable	0 – start of programming 1 – animation data 9 – animation delete 10 – control sum readout 20 – setting active animation
3	Data format	0..1		1	0 - format hex 1 - format base64
4	Command	**@A**		2	
5	Size of entire file	Number	/	variable	Size in binary format
6	Size of data sent in packet	Number	/	variable	Size in sent format (hex, base 64)
7	File name	Text	<CR>	variable	Textual name of file together with extension, max. 12 characters.
8	Data	Text	<CR>	variable	Data in target format (HEX/BASE64)
9	Control byte	00..FF		2	
10		<ESC>\		2	

Remarks:

Animation format:	APNG /PNG
Max resolution:	480x272
Number of colours:	16bit (RGB-565)
Number of frames per second:	max 25 fps, preferred 12fps
Max. total size of all animations:	80MB

3.15. Sequences of animation operating (@A) – readout of crc animation

Restrictions:
Operated by **HDE fiscal printer.**

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**@A**		2	
3	Control sum calculated by the	**Decimal number**	/	4	CRC

	device				
4	Control byte	00..FF		2	
5		<ESC>\		2	

<u>Error code:</u>

1: not initiated printer's clock.

3.16. The rest of orders.

3.16.1. Printing descriptor's report.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Ignored	1		1	
3	Command	**@d**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

<u>Errors' codes:</u>

2: control byte error.

3.16.2. Outdraw of paper.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Quantity of lines	0..20		1..2	
3	Command	**#l**		2	
4	Control byte	00..FF		2	
5		<ESC>\		2	

<u>Where:</u>

Quantity of lines
outdraw of paper at 0..20 lines. Sequence is blocked during the transaction and in saving mode.

<u>Errors' codes:</u>

2: control byte error,
4: parameter error - Quantity of lines.

3.16.3. Database control.

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Action			1	
3	Command	**#b**		2	
4	Name	Inscription	<CR>	1..40	Parameters which appear only when Action = 1
5	VAT	A..G, Z	/	1	

6	Cash register number	Inscription	<CR>	0..8	Optional parameters which may appear Action = 2. Optional parameters – replacing those introduced during [cashiers log-in..](#)
7	Cashier	Inscription	<CR>	0..32	
8	Control byte	00..FF		2	
9		<ESC>\		2	

<u>Where:</u>

Action
 0: beginning of the test,
 1: sending data record,
 2: end of test

Name
 name of the item in the base,
VAT
 VAT rate signification,
Cash register number
 inscription including the name of the cash register
Cashier
inscription reserved for the name of the cashier,

<u>Errors' codes:</u>

 1: RTC clock not initiated,
 2: control byte error,
 4: parameter error / sequence error (e.g. first the end: Action = 2 then data: Action = 1),
 38: name error,
 39: VAT signification error, VAT out of the A-G range

3.17. Additional communication packets.

Packets present in QUARTO fiscal printers and more recent ones.

3.17.1. Handling tunnelling the transmission of AUX1 and AUX2 ports PC1 and PC2.

Ports: PC1, PC2

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Function	0..3	;	1	0 – resetting of queue 1 – query for the queue size 2 – readout of printer's receiving queue 3 – record of printer's sending queue
3	Port number	2,3	;	1	2 – AUX1, 3 – AUX2
4	No of queue	1-3		1	3 – both: receiving and sending (for resetting only), 1 – receiving, 2 – sending (from the printer)
5	Command	^x		2	
6	Quantity of bytes	Number	/	1..3	Quantity of bytes depending on the function: in queue, to be sent, received
7	Data buffer	Text	<CR>	1..512	Data to be sent or readout, hexadecimal coded, 2 characters per byte e.g. sequence of bytes of values 1,2,3,15 will be sent here as 0102030F
13	Control byte	00..FF		2	
14		<ESC>\		2	

1. The printer does not send anything to the queues resetting function.
2. For the function of readout of the queue size, the printer responses by the same packet as request with a filled field „Quantity of bytes". The „Data" field does not appear in the response.
3. For the function of readout of receiving queue, the printer responses by the same packet as request with a filled field „Quantity of bytes" (actually sent back) and „Data" (size of the Field equal to 2 x "Quantity of bytes").

3.17.2. Handling the controlling of modem lines of transmission of AUX1- AUX2 ports by PC1 and PC2 ports.

Ports: PC1, PC2

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Function	0..1	;	1	0 – setting modem signals 1 – readout of modem signals
3	Port number	2,3	;	1	2 – AUX1, 3-AUX2
4	Command	^m		2	
5	Signals for setting	number	/	1	Following bits set on 1 mean signals which are to be set on 1: Bit 0 – RTS Bit 1 – DTR
6	Signals for resetting	number	/	1	Following bits set on 1 mean signals which are to be set on 0: Bit 0 – RTS Bit 1 – DTR
7	Control byte	00..FF		2	
8		<ESC>\		2	

Packet of responses to the readout function (1):

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Function	1	;	1	1 – readout of modem signals
3	Port number	2,3	;	1	2 – AUX1, 3-AUX2
4	Command	^m		2	
5	Modem signals	number	/	1-2	Following bits set on 1 mean signals which are to be set on 1: Bit 0 – RTS Bit 1 – DTR Bit 2 – CTS Bit 3 – DSR
6	Control byte	00..FF		2	
7		<ESC>\		2	

Remarks:

1. Separate signal Fields for setting and resetting allow full controlling over optional lines without the necessity to know the statuses of non-changed lines.

3.17.3. Readout of periodical review date.

Ports: PC, PC2

No.	Field name	Contents	Separator	Size	Remarks
1		\<ESC\>P		2	
2	Constant	11		1	
3	Command	**^t**		2	
4	Control byte	00..FF		2	
5		\<ESC\>\		2	

Response

No.	Field name	Contents	Separator	Size	Remarks
1		\<ESC\>P		2	
2	Constant	1		1	
3	Command	**^t**		2	
4	Year	00..99	/	2	Two last digits of year
5	Month	01..12	/	2	Number of month in year
6	Day	01..31	/	2	Number of day in given month
7	Text	Inscription	\<CR\>	0..30	Optional argument
8	Control byte	00..FF		2	
9		\<ESC\>\		2	

where:

Amount of days
  Number of days which left to periodical review
Year, Month, Day
  Date of periodical review
Text
  Telephone number of service point, excessive characters are cut. If there is no argument – the previous one stays. If argument is empty, the option is switched off, there is displayed only reminder about calling service team.

Errors codes:

  1: not initiated RTC clock,
  4: parameter error,

3.17.4. Readout of service blockade date.
Ports: PC, PC2

No.	Field name	Contents	Separator	Size	Remarks
1		\<ESC\>P		2	
2	Constant	12		1	
3	Command	**^t**		2	
4	Control byte	00..FF		2	
5		\<ESC\>\		2	

Response

No.	Field name	Contents	Separator	Size	Remarks
1		\<ESC\>P		2	
2	Constant	2		1	
3	Command	**^t**		2	
4	Year	00..99	/	2	Two last digits of year

5	Month	01..12	/	2	Number of month in year
6	Day	01..31	/	2	Number of day in given month
7	Password	Inscription	\<CR\>	0..30	
8	Text	Inscription	\<CR\>	0..30	
9	Control byte	00..FF		2	
10		\<ESC\>\\		2	

where:

Year, Month, Day
   Date of periodical review
Password
   If it's empty, the service blockade is removed.
Text
   Telephone number of service point, excessive characters are cut. If there is no argument – the previous one stays.

Errors codes:

1: non initiated RTC clock,
4: parameter error,

3.17.5. Question about data from the last receipt.

Ports: PC2

No	Field name	Content	Separator	Size	Remarks
1		\<ESC\>P		2	
	Kind of information		;		0 – receipt summary 1 – receipt positions 2 – positions of returnable packages 3 – forms of payment
2	Number of position	0..255		1..3	
3	Command	**?l**		2	
4	Control byte	Inscription		2	
5		\<ESC\>\\		2	

Remarks:

1. The PC program has to make queries about each single piece of data. Firstly, a summary of the receipt shall be taken to know how many single pieces are to be asked for. If it makes a query beyond the range it will get a packet of responses without data, i.e.. \<ESC\>Pi?lbk\<ESC\>\\ Where i – kind of information and bk - Control byte.

Responses:

Kind of information = 0 – receipt summary:

No	Field name	Content	Separator	Size	Remarks
		\<ESC\>P		2	
	Kind of information	0		1	
	Command	**?l**		2	
	Receipt status		/		Decimal value: 0 – empty 1 – open 2 – close 3 – cancelled

	Type of receipt		/		Decimal value: 0 – normal 1 – accounting returnable packages
	Receipt No		/		
	Date and time of receipt		<CR>		Format yyyy-mm-dd hh:mm:ss
	No of printout		/		
	Transaction system No		<CR>		
	No of cash register		<CR>		Data from the ending of receipt or logging in
	Cashier		<CR>		Data from the ending of receipt or logging in
	Quantity of items		/		
	Quantity of securities		/		
	Quantity of forms of payment		/		
	Total		/		Fiscal value without deposit provision
	Type of discount		/		0: none, 1: percentage discount, 2: percentage overhead, 3: amount discount, 4: amount overhead,
	Discount		/		Amount or percentage value
	Name of the discount		<CR>		
	Total after discount		/		
	Method of discounts' accounting	0..1	/	1	As in the command fixing the method
	Received deposits	Number	/		For a given package
	Paid deposits	Number	/		For returned packages
	To be paid	Number	/		
	Cash	Number	/		Sum of payments in this form
	Card	Number	/		Sum of payments in this form
	Checque	Number	/		Sum of payments in this form
	voucher	Number	/		Sum of payments in this form
	Other form of payment	Number	/		Sum of payments in this form
	Credit	Number	/		Sum of payments in this form
	Customer's account	Number	/		Sum of payments in this form
	Transfer	Number	/		Sum of payments in this form
	Euro Cash	Number	/		Sum of payments in this form
	Name of the card	Inscription	<CR>		Name of the first one (if there were many)
	Name of the checque	Inscription	<CR>		Name of the first one (if there were many)
	Name of the voucher	Inscription	<CR>		Name of the first one (if there were many)
	Name of other form of payment	Inscription	<CR>		Name of the first one (if there were many)
	Name of credit	Inscription	<CR>		Name of the first one (if there were many)
	Name of Customer's account	Inscription	<CR>		Name of the first one (if there were many)

	Name of transfer	Inscription	<CR>		Name of the first one (if there were many)
	Euro currency		/		
	Rest in PLN [zł]		/		
	Rest in Euro		/		
	Control byte	00..FF		2	
		<ESC>\		2	

Kind of information = 1 – receipt items:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of information	1			
3	Command	**?l**		2	
4	Item No	0..255	**/**	1..3	
5	Name	Inscription	<CR>	2..40	
6	Commodity code	Inscription	<CR>	0..18	
7	Quantity	Inscription	<CR>	1..16	(when storno < 0)
8	VAT	Character	/	1	
9	Price	Number	/	1..10	
10	Gross	Number	/	1..10	(when storno < 0)
11	Kind of discount	0..4	/	1	
12	Description of discount	0..16	/	1..2	
13	Discount	Number	/	1..10	
14	Name of discount	Inscription	<CR>	0..40	
15	Summary percentage discount	Number	/		Total resulting percentage discount deriving from the discount provided per item, for the sub-sum and the whole receipt, amount and percentage.
16	Value after summary discounts	Number	/		Value of items after providing the discounts. **Attention!!! This value in case of multiple discounts is approximated and few-grosz (cents)-high variations connected with the fact that the printer summary amounts in each rate sand does not position the receipt.**
17	Control byte	00..FF		2	
18		<ESC>\		2	

Kind of information = 2 – deposit items (for returnable packages):

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of information	2			
3	Command	**?l**		2	
4	Item No	0..63	**/**	1..2	
5	Code of returnable package	Inscription	<CR>	2..40	

No	Field name	Content	Separator	Size	Remarks
6	Quantity	Inscription	<CR>	1..16	(when returned < 0)
7	Price	Number	/	1..10	
8	Gross value	Number	/	1..10	(when returned < 0)
15	Control byte	00..FF		2	
16		<ESC>\		2	

Kind of information = 3 – items of forms of payment:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of information	3			
3	Command	**?l**		2	
4	Item No	0..31	**/**	1..2	
5	Code of the form of payment	number	/	1	Codes: 0: CASH, 1: CARD, 2: CHEQUE, 3: Voucher, 4: OTHER, 5: CREDIT, 6: CUSTOMER'S ACCOUNT, 7: TRANSFER 8: EURO CASH
6	Value	Inscription	/	1..16	
7	Name	Number	<CR>	1..10	
8	Control byte	00..FF		2	
9		<ESC>\		2	

3.17.6. Handling the data of logs of communication monitor.

Ports: PC1, PC2

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Kind of order		;		0 – readout the first log 1 – readout the next log 2 – remove log data for the given port
3	Port number	1..4		1	Identifiers of COM ports: 1 – COM1 2 – COM2 3 – COM3 4 – COM4
4	Command	**?m**		2	
5	Control byte	00..FF		2	
6		<ESC>\		2	

Remarks:
1. Kind of order = 0 sets the internal log indicator as first and sends it back. Order = 1 increases the internal log indicator so that it indicates the next log and sends it back or sends an empty log if there is no next log.
2. Packets of big logs may be divided into few packets, 256(Quarto) or 128 (Vivo/Vento) bytes each.
3. The PC always has to inquire about logs or packets of logs if the logs were big and were divided into few packets. The printer itself does not send back following packets of the same log. The following log will be send back as the PC queries about all packets of the previous log (if there are few because the packet was to big).

4. Further information about dividing logs into packets are included in the remarks to the packet of answers including data of logs.

Response for orders of logs' readout:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
5	Command	**?m**		2	
	Port No	1..4	/		
	Transmission direction	0,1	/		0 – data received by the printer 1 – data sent by the printer
	Date and time of log		<CR>		Format: yyyy-mm-dd hh:mm:ss:mmm
	Total quantity of bytes in log	0	/		
	Offset of data in log	0-nnnn	/		When: =0 : data >0 : continuation of the previous log Log may be sent in many packets if its size exceeds 256 bytes for Quarto and 128 for Vivo/Vento.
6	Quantity of bytes in log in the current packet	number	/	1..3	Log may be sent in many packets. Here the information is included how many is sent in this packet.
7	Data buffer	Text	<CR>	1..512	Data of log's bytes, hexadecimal coded, 2 characters per byte e.g. sequence of bytes of values 1,2,3,15 will be sent here as 0102030F
13	Control byte	00..FF		2	
14		<ESC>\		2	

Remarks:
1. Receiving an empty log with a null quantity of bytes means the last log
2. If the amount of bytes in log exceeds 256 (Quarto/Delio) or 128 (Vivo/Vento) than such a log will be sent back in many packets. The „Log data offset" and „Quantity of bytes in log in the current packet" Fields shall be used build a full log during the transmission of the following packets. Recognizing that a packet is a transmission of the following part of the previous log bases on the analysis of the „Offset of data in log" Field which is >0 when the packet is a continuation of the previous log.
3. Transmission of the query of communication log data is recorded to communication logs only at the first time, unless the time between inquiries about the further log data is longer than 3[s].
4. During the transmission of the data connected with receiving communication logs, no transmission is logged by the time of its completion or after 3[s] in case that the transmission was not successfully completed.
5. Transmissions of answers for queries of the data of communication monitor logs are not recorded to communication logs in order to avoid their useless usage.

3.17.7. Configuration settings.

Ports: PC1

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**^c**		2	
3	Control byte	00..FF		2	
6		<ESC>\		2	

Response to readout orders item programming:

No	Field name	Content	Separator	Size	Remarks

1		<ESC>P		2	
2	Quantity of items			2	Total quantity of items sent in a packet.
3	Command	^c		2	
4	Item No	number	<CR>	1..2	0
5	Auto set-off	0..999	<CR>	1..3	Time in seconds after which a non-working printer will set itself off
6	Item No	number	<CR>	1..2	1
7	Auto blanking	0..999	<CR>	1..3	Time in seconds after which a non-working printer will blank.
8	Item No	number	<CR>	1..2	2
9	Printout contrast	0..9	<CR>	1	Printout contrast,: 9 – maximal printout contrast 0 – minimal printout contrast
10	Item No	number	<CR>	1..2	3
11	Printing undersigns' line	0..2	<CR>	1	Printing undersigns' line: 0 – all 1 – only sub-sums 2 – none
12	Item No	number	<CR>	1..2	4
13	Communicat. control	0..1	<CR>	1	Communication control: 0 – XONXOFF+RTSCTS 1 – RTSCTS
14	Item No	number	<CR>	1..2	5
15	Communicat. protocol	0..1	<CR>	1	Communication protocol
16	Item No	number	<CR>	1..2	6
17	Source for additional lines	0..1	<CR>	1	Source for additional lines: 0 – foot note 1 – header
18	Item No	number	<CR>	1..2	7
19	Additional lines on the receipt	0..1	<CR>	1	Additional lines on the receipt: 0 – none 1 – stable
20	Item No	number	<CR>	1..2	8
21	Receipt system number line	0..6	<CR>	1	Receipt system number line: 0 – none 1 – first 2 – second 3 – third 4 – fourth 5 – fifth 6 – last
22	Item No	number	<CR>	1..2	9
23	Sent back name	0..3	<CR>	1	Sent back name: 1 – VIVO (VENTO) 2 – WIKING 3 – POSTNET
24	Item No	number	<CR>	1..2	10
25	Format of the unique number sent back	0..1	<CR>	1	Format of the unique number sent back: 0 – XXX######## 1 – XX######## (X – letters, # -digits)
26	Item No	number	<CR>	1..2	11
27	Receipt buffering	0..1	<CR>	1	Receipt buffering: 0 – no 1 – yes
28	Item No	number	<CR>	1..2	12
29	Reeling	0..1	<CR>	1	Reeling indicator:

	indicator				0 – on 1 – off
30	Item No	number	<CR>	1..2	13
31	PC1 Speed	0..7	<CR>	1	COM sequence port speed: 0 – 1200 1 – 2400 2 – 4800 3 – 9600 4 – 19200 6 – 57600 7 – 115200
32	Item No	number	<CR>	1..2	14
33	AUX1Speed	0..7	<CR>	1	COM sequence port speed: 0 – 1200 1 – 2400 2 – 4800 3 – 9600 4 – 19200 6 – 57600 7 – 115200
34	Item No	number	<CR>	1..2	15
35	AUX2 Speed	0..7	<CR>	1	COM sequence port speed: 0 – 1200 1 – 2400 2 – 4800 3 – 9600 4 – 19200 6 – 57600 7 – 115200
36	Item No	number	<CR>	1..2	16
37	PC2 Speed	0..7	<CR>	1	COM sequence port speed: 0 – 1200 1 – 2400 2 – 4800 3 – 9600 4 – 19200 6 – 57600 7 – 115200
38	Item No	number	<CR>	1..2	17
39	PC1 parameters	0..1	<CR>	1	Communication control: 0 – XONXOFF+RTSCTS 1 – RTSCTS 2 – None
40	Item No	number	<CR>	1..2	18
41	AUX1 parameters	0..1	<CR>	1	Communication control: 0 – XONXOFF+RTSCTS 1 – RTSCTS 2 – None
42	Item No	number	<CR>	1..2	19
43	AUX2 parameters	0..1	<CR>	1	Communication control: 0 – XONXOFF+RTSCTS 1 – RTSCTS 2 – None
44	Item No	number	<CR>	1..2	20
45	PC2 parameters	0..1	<CR>	1	Communication control: 0 – XONXOFF+RTSCTS 1 – RTSCTS 2 – None
46	Item No	number	<CR>	1..2	21
47	Logging COM1 transmission	0..1	<CR>	1	Logging transmission: 0 – on 1 – off

48	Item No	number	<CR>	1..2	22
49	Logging COM2 transmission	0..1	<CR>	1	Logging transmission: 0 – on 1 – off
50	Item No	number	<CR>	1..2	23
51	Logging COM3 transmission	0..1	<CR>	1	Logging transmission: 0 – on 1 – off
52	Item No	number	<CR>	1..2	24
53	Logging COM4 transmission	0..1	<CR>	1	Logging transmission: 0 – on 1 – off
54	Item No	number	<CR>	1	25 (for Delio printer)
55	Logging COM5 transmission	0..1	<CR>	1	Logging transmission: 0 – switched on 1 – switched off
56	**Item No**	**number**	**<CR>**	**2**	**25 (for printers others than Delio)** **26 (for printer Delio)**
57	Configuration of ports (mapping)	0..2	<CR>	1..2	Configuration of ports as follows: Delio Prime: 1. PC PP1 PP2 – PC2 2. PC2 PP1 PP2 – PC1 3. - PP1 PP2 PC PC2 4. PC PC2 PP1 PP2 - 5. PC2 PC PP1 PP2 - Delio: 1. - - PC – PC2 2. - - PP1 PC PC2 Bono: 1. PC PP1 PP2 PC2 2. PC2 PP1 PP2 PC1 3. PC PC2 PP1 PP2 4. PC2 PC PP1 PP2 5. PP1 PP2 PC PC2 6. PC PP2 PP1 PC Deon: 1. PC - - 2. - PC - 3. - - PC Quarto: 1. PP1 PC PP2 PC2 2. PP1 PC2 PP2 PC 3. PP1 PC PC2 PP2 4. PP1 PC2 PC PP2 5. PC PC2 PP1 PP2
58	**Item No.**	**number**	**<CR>**	**2**	**27**
59	Wake up the device from communication port	0..7	<CR>	1	Subsequently set bits mean: For Deon printer: 1 – Waking up from COM1 2 – Waking up from COM2 (BT) 3 – Waking up from COM3 (USB) For Bono printer: 1 – Waking up from COM1 For Delio printer: 1 – Waking up from COM2 and COM3
60	**Item No.**	**number**	**<CR>**	**2**	**28**
61	Control of cashiers logging	0..1	<CR>	1	0 – switched on 1 – switched off Switched on control of cashiers logging causes automatical printout of cashier change report (resetting) – ending cashier change – in moment of new cashier

					logging
62	**Item No.**	**number**	**<CR>**	**2**	**29 (only MiniPos)**
63	Calibration of printer's clock	-36000.. ..36000	<CR>	1..6	
64	**Item No.**	**number**	**<CR>**	**2**	**30 (only MiniPos)**
65	Contrast of cashier's display	60.. 127	<CR>	2..3	
66	**Item No.**	**number**	**<CR>**	**2**	**31 (printers with invoices operating)**
67	Option of invoice printout	0.. 1	<CR>	1	0 – switched on 1 – switched off Switched on option causes message about copy's (of invoice) printout on printer's display before its printing
68	**Item No.**	**number**	**<CR>**	**2**	**32**
69	Height of bar code on receipt	0.. 255	<CR>	1..3	Height of bar code printed in receipt line 40 – default value
70	**Item No.**	**number**	**<CR>**	**2**	**33**
71	Height of the rest bar codes	0.. 255	<CR>	1..3	Height of bar code printed under receipt, under invoice, under non-fiscal printout and on non-fiscal printout 100 – default value
72	**Item No.**	**number**	**<CR>**	**2**	**34**
73	Font type on printouts	0.. 1	<CR>	1	0 – normal 1 – thin
74	**Item No.**	**number**	**<CR>**	**2**	**35**
75	Font type on printout's title	0.. 1	<CR>	1	0 – normal 1 – thin (enlarged)
76	**Item No.**	**number**	**<CR>**	**2**	**36**
77	Format of position printout on invoice	0.. 1	<CR>	1	0 – basic 1 – shortened
78	**Item No.**	**number**	**<CR>**	**2**	**37**
79	Format of position printout on receipt	0.. 1	<CR>	1	0 – basic 1 – aligning prices
80	Item No.	number	<CR>	2	38
81	Change control on receipt	0.. 1	<CR>	1	0 – switched on 1 – switched off
82	**Item No.**	**number**	**<CR>**	**2**	**39**
83	Scale of QRCode	2..10	<CR>	4	
84	**Item No.**	**number**	**<CR>**	**2**	**40**
85	QRCode version	0..9	<CR>	0	0 – automatic 1. 21x21 2. 25x25 3. 29x29 4. 33x33 5. 37x37 6. 41x41 7. 45x45 8. 49x49 9. 53x53
86	**Item No.**	**number**	**<CR>**	**2**	**41**
87	Level of errors correction QRCode(ECL)	0..3	<CR>	3	0. low (L 7%) 1. average (M 15%) 2. high (Q 25%)

					3. extremely high (H 30%)
88	**Item No.**	**number**	**<CR>**	**2**	**42**
89	Port COM1 connection	0..5	<CR>	1	0 – none 1 – PC 2 – PC2 3 – PP1 (assistant port 1) 4 – PP2 (assistant port 2) 5 – print monitor *(read remark 6)*
90	**Item No.**	**number**	**<CR>**	**2**	**43**
91	Port COM2 connection	0..5	<CR>	1	Acceptable parameters the same like for port COM1 connection *(read remark 6)*
92	**Item No.**	**number**	**<CR>**	**2**	**44**
93	Port COM3 connection	0..5	<CR>	1	Acceptable parameters the same like for port COM1 connection *(read remark 6)*
94	**Item No.**	**number**	**<CR>**	**2**	**45**
95	Port COM4 connection	0..5	<CR>	1	Acceptable parameters the same like for port COM1 connection *(read remark 6)*
96	**Item No.**	**number**	**<CR>**	**2**	**46**
97	Port COM5 connection	0..5	<CR>	1	Acceptable parameters the same like for port COM1 connection *(read remark 6)*
98	**Item No.**	**number**	**<CR>**	**2**	**47**
99	Port COM6 connection	0..5	<CR>	1	Acceptable parameters the same like for port COM1 connection *(read remark 6)*
100	**Item No.**	**number**	**<CR>**	**2**	**48**
101	Number of port TCP on PC1	0..9999	<CR>	1	
102	**Item No.**	**number**	**<CR>**	**2**	**49**
103	Filter MAC TCP on PC1	text	<CR>	14	Format: „XX-XX-XX-XX-XX"
104	**Item No.**	**number**	**<CR>**	**2**	**50**
105	Number of port TCP on PC2	0..9999	<CR>	1	
106	**Item No.**	**number**	**<CR>**	**2**	**51**
107	Filter MAC TCP on PC2	text	<CR>	14	Format: „XX-XX-XX-XX-XX"
108	**Item No.**	**number**	**<CR>**	**2**	**52**
109	Number of port TCP on PP1	0..9999	<CR>	1	
110	**Item No.**	**number**	**<CR>**	**2**	**53**
111	Filter MAC TCP on PP1	text	<CR>	14	Format: „XX-XX-XX-XX-XX"
112	**Item No.**	**number**	**<CR>**	**2**	**54**
113	Number of port TCP on PP2	0..9999	<CR>	1	
114	**Item No.**	**number**	**<CR>**	**2**	**55**
115	Filter MAC TCP on PP2	text	<CR>	14	Format: „XX-XX-XX-XX-XX"
116	**Item No.**	**number**	**<CR>**	**2**	**56**
117	Number of port TCP on print monitor.	0..9999	<CR>	1	
118	**Item No.**	**number**	**<CR>**	**2**	**57**

119	Filter MAC TCP on print monitor.	text	<CR>	14	Format: „XX-XX-XX-XX-XX"
120	**Item No.**	**number**	**<CR>**	**2**	**58**
121	Mode of setting net TCP/IP	0..1	<CR>	1	0 – Automatic (DHCP) 1 – manual
122	**Item No.**	**number**	**<CR>**	**2**	**59**
123	Address IP	text	<CR>	15	Format: „###.###.###.###"
124	**Item No.**	**number**	**<CR>**	**2**	**60**
125	Subnet mask	text	<CR>	15	Format: „###.###.###.###"
126	**Item No.**	**number**	**<CR>**	**2**	**61**
127	Default gateway	text	<CR>	15	Format: „###.###.###.###"
128	**Item No.**	**number**	**<CR>**	**2**	**62**
129	Server DNS	text	<CR>	15	Format: „###.###.###.###"
130	**Item No.**	**number**	**<CR>**	**2**	**63**
131	Server HTTP	0..1	<CR>	1	0 – Inactive 1 – Active
132	**Item No.**	**number**	**<CR>**	**2**	**64**
133	Print width	0..1	<CR>	1	0 – 57 [mm] 1 – 80 [mm]
134	**Item No.**	**number**	**<CR>**	**2**	**65**
135	Font	0..1	<CR>	1	0 – Normal 1 – Enlarged Warning! Option is active only for print width 80 [mm]
136	**Item No.**	**number**	**<CR>**	**2**	**66**
137	Cutter	0..1	<CR>	1	0 – switched off 1 – full cut 2 – partial cut
138	**Item No.**	**number**	**<CR>**	**2**	**67**
139	Serial number	number	<CR>	1..15	
140	**Item No.**	**number**	**<CR>**	**2**	**68**
141	Speed of print monitor	0..7	<CR>	1	Speed of serial port COM: 0 – 1200 1 – 2400 2 – 4800 3 – 9600 4 – 19200 6 – 57600 7 – 115200
142	**Item No.**	**number**	**<CR>**	**2**	**69**
143	Control of print monitor communication	0..2	<CR>	1	Communication control: 0 – XONXOFF+RTSCTS 1 – RTSCTS 2 – none
144	**Item No.**	**number**	**<CR>**	**2**	**70**
145	Control of making daily report	0..1	<CR>	1	0 – switched off 1 – switched on
146	**Item No.**	**number**	**<CR>**	**2**	**71**
147	Automatic drawer opening	0..1	<CR>	1	0 – switched off 1 – switched on
148	**Item No.**	**number**	**<CR>**	**2**	**72**
149	Automatic	0..1	<CR>	1	Automatic backlight off (keyboard, display)

	backlight off				while power on 0 – switched off 1 – switched on
150	**Item No.**	**number**	**<CR>**	**2**	**73**
151	Automatic backlight off	0..1	<CR>	1	Automatic backlight off (displays) while power on 0 – switched off 1 – switched on
152	**Item No.**	**number**	**<CR>**	**2**	**74**
153	Automatic backlight off	0..1	<CR>	1	Automatic backlight off (keyboard) while power on 0 – switched off 1 – switched on
154	**Item No.**	**number**	**<CR>**	**2**	**77**
155	Code page of print monitor	0..2	<CR>	1	0 – Mazovia 1 – Windows 1250 2 – ISO 8859-2
156	**Item No.**	**number**	**<CR>**	**2**	**80**
157	Print the conversion in receipt's footer	0..2	<CR>	1	0 – switched off 1 – switched on
158	**Item No.**	**number**	**<CR>**	**2**	**81**
159	Print the conversion – currency name	text	<CR>	3	
160	**Item No.**	**number**	**<CR>**	**2**	**82**
161	Print the conversion – currency name	number	<CR>	13	Currency exchange rate with precision up to 8 decimal places Format: ####.########
162	**Item No.**	**number**	**<CR>**	**2**	**84**
163	Displaying status of accumulator	0..1	<CR>	1	0 – switched off 1 – switched on
164	**Item No.**	**number**	**<CR>**	**2**	**85**
165	Display contrast	number	<CR>	2	10..99 – HD E
166	**Item No.**	**number**	**<CR>**	**2**	**87**
167	Intensity of display backlight	number	<CR>	3	0..100 – HD E
168	**Item No.**	**number**	**<CR>**	**2**	**88**
169	Intensity of keyboard backlight	number	<CR>	3	0..100
170	**Item No.**	**number**	**<CR>**	**2**	**91**
171	Input code page for PC connection	number	<CR>	1	0 – Mazovia 1 – Windows 1250 2 – ISO 8859-2
172	**Item No.**	**number**	**<CR>**	**2**	**92**
173	Output code page for PC connection	number	<CR>	1	0 – Mazovia 1 – Windows 1250 2 – ISO 8859-2

174	**Item No.**	**number**	**<CR>**	**2**	**93**
175	Input code page for PC 2 connection	number	<CR>	1	0 – Mazovia 1 – Windows 1250 2 – ISO 8859-2
176	**Item No.**	**number**	**<CR>**	**2**	**94**
177	Output code page for PC 2 connection	number	<CR>	1	0 – Mazovia 1 – Windows 1250 2 – ISO 8859-2
178	**Item No.**	**number**	**<CR>**	**2**	**95**
179	Name of animation file	text	<CR>	5..12	File name in notation DOS-a (8+3)
180	**Item No.**	**number**	**<CR>**	**2**	**96**
181	Active animation	number	<CR>	1	0 – switched on 1 – switched off
182	**Item No.**	**number**	**<CR>**	**2**	**97**
183	Buzzer volume	number	<CR>	1	Number from range 0-7
184	**Item No.**	**number**	**<CR>**	**2**	**98**
185	Menu appearance style	number	<CR>	1	Number from range 0-7
186	**Item No.**	**number**	**<CR>**	**2**	**99**
187	Verification of paper changing	number	<CR>	1	0 – switched off 1 – switched on
188	**Item No.**	**number**	**<CR>**	**3**	**100**
189	Confirmation of paper changing DLE	number	<CR>	1	0 – switched off 1 – switched on
190	**Item No.**	**number**	**<CR>**	**3**	**101**
191	Verification of wires connecting	number	<CR>	1	0 – switched off 1 – switched on
192	**Item No.**	**number**	**<CR>**	**3**	**102**
193	Inform about paper end	number	<CR>	1	0 – switched off 1 – switched on
194	**Item No.**	**number**	**<CR>**	**3**	**103**
195	Interval between receipt and animation display	number	<CR>	2	10..45 second
196	**Item No.**	**number**	**<CR>**	**3**	**104**
197	Login of COM6 transmission	0..1	<CR>	1	Transmission login: 0 – switched on 1 – switched off
198	**Item No.**	**number**	**<CR>**	**3**	**105**
199	Definition of sent back name	text	<CR>	0..20	Name would be send back by the printer when set option 9 for: 7 – Defined
200	**Item No.**	**number**	**<CR>**	**3**	**106**

No	Field name	Content	Separator	Size	Remarks
201	Sleeping device after daily report	0..1	<CR>	1	0 – switched off 1 – switched on
202	**Item No.**	**number**	**<CR>**	**3**	**107**
203	No paper feed after printing	0..1	<CR>	1	0 – switched off 1 – switched on
204	**Item No.**	**number**	**<CR>**	**3**	**108**
205	Current IP address	text	<CR>	0..15	Address IP in standard notation e.g.: 192.168.1.1
206	**Control byte**	**00..FF**		**2**	
207		<ESC>\		2	

Remarks:
1. Item No relates to item Field situated below.
2. Communication control (field No 13) is suited for servicing (Vivo/Vento) printers. Similar items in fields 39 - 45 are suited for (Quarto) printers.
3. Items up to number 13 – are the options sent to Vivo/Vento printers (the packet sent to these printers shall be finished in this point, the „quantity of items" field of messages shall include value 13 in such case). The more recent printers like Quarto – service the full packet shown above.
4. Accepting QRCode scale that exceeds print can cause not printing the code.
5. QRCode acts in alphanumeric mode, what means that acceptable are the following characters: capital letters A..Z, digits 0..9 and space, $, %, *, +, -, ., /, :
6. One device can be connected only to one COM port.
7. **WARNING!!! Fields from 88 to 207 are accessible in fiscal printer Novitus HD E.**

3.17.8. Setting the messages on PC2.

Ports: PC2

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
	Function				0 – reset the messages and stable items for presumable messages 1 – set the messages and items temporarily (until setting off) 2 – set the messages and items permanently 9 – readout the events
2	Command	**^e**		2	
	Flags of messages about events	number	/	1-5	Decimal number which bits determine what messages shall be sent by the printer. When the bit = 1 inform about: 0 – setting on (ENQ) 1 – starting the receipt (ENQ) 2 – receipt item (ENQ) (also package and storno) 3 – form of payment (ENQ) 4 – ending the receipt (ENQ) (also the cancelled ones) 5 – Appearance of data on PP1 port (ENQ) 6 – Sending all the data by PP1 port (empty sending queue) 7 – Change of modem entry signals of the PP1 port (ENQ) 8 – Appearance of data on PP2 port (ENQ) 9 – Sending all the data by PP1 port (empty sending queue) (ENQ)

					10 – Change of modem entry signals of the PP1 port (ENQ) 11- starting the printout (not the receipt) (ENQ) 12 – ending the printout (not the receipt) (ENQ) 13 – switching of (CAN)
	Special items	number	/	1	0 – block the PC port in 5s after finishing the receipt 1 – block the PC port in 5s after finishing a printout other than a receipt
3	Control byte	00..FF		2	
6		<ESC>\		2	

Remarks:
1. Presumable messages mean that all messages are set off.
2. Temporary setting is active only until the printer has been set off
3. Permanent setting is active also after the printer has been set off but it may be reset by clocking the printer
4. After receiving the message (characters ENQ or CAN), the program on PC2 should inquire the printer (9^e function) of what tasks exactly took place. New messages cannot come in that time until final reading out the information about events, except the information about setting off (CAN).
5. Flags of receive transmission events of ports PP1 and PP2 will not be reset until receiving/ canceling this data by the PC2 port or by setting the printer off.
6. After setting of, the non-received information about messages is reset.
7. The PC2 application, after its restart shall receive the information about messages as soon as possible to allow sending new messages, as it might have omitted the earlier ones and, thus, block sending further messages.
8. Blocking the PC port for 5s is possible only when activity is found on PC2 port – i.e. the PC2 application has to inquire about statuses, cash information or event flags. Lack of activity for 3 following receipts would cause that PC port blockages would not appear despite the settings of special items.

Information about events – response to function 9:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**^e**		2	
	Flags of messages about events	number	/	1-5	Decimal number which bits determine what messages shall be sent by the printer. When the bit = 1 inform about: 0 – setting on (ENQ) 1 – starting the receipt (ENQ) 2 – receipt item (ENQ) (also package and storno) 3 – form of payment (ENQ) 4 – ending the receipt (ENQ) (also the cancelled ones) 5 – Appearance of data on PP1 port (ENQ) 6 – Sending all the data by PP1 port (empty sending queue) 7 – Change of modem entry signals of the PP1 port (ENQ) 8 – Appearance of data on PP2 port (ENQ) 9 – Sending all the data by PP1 port (empty sending queue) (ENQ) 10 – Change of modem entry signals of the PP1 port (ENQ) 11- starting the printout (not the receipt) (ENQ) 12 – ending the printout (not the receipt) (ENQ) 13 – switching off (CAN)

	Special items	number	/	1	0 – block the PC port in 5s after finishing the receipt 1 – block the PC port in 5s after finishing a printout other than a receipt
3	Control byte	00..FF		2	
4		<ESC>\		2	

Remarks:

1. After receiving this packet of responses, response flags are reset (with two exceptions – see p. 2) and new messages may be sent.
2. Flags of receive transmission events of PP1 and PP2 ports will not be reset until the receive/ cancellation of this data by the PC2 port or setting off the printer.

3.17.9. Controlling PC2 application from the PC and receiving the status.

Ports: PC

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Function	Number	;		Commands to be sent to PC2 application: 1 – start the transaction 2 – readout transaction status 3 – cancel the transaction 4 – confirmations may be printed
3	Type of transaction	number	;		0 – paying 1 – loyalty
	Options of transaction	number			(not defined yet)
4	Command	^s		2	
5	Amount of transaction	number	/	1-10	Optional amount of transaction
6	Data of transaction	Text	<CR>	0..128	Optional data of transaction
7	Control byte			2	
8		<ESC>\		2	

Response to function 2:

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	^s		2	
3	Transaction status		/	1	0 – unknown 1 – started (on the run) 2 – rejected 3 – cancelled 4 – successfully completed 5 – unsuccessfully completed 40 – printed for successful completion 41 – printed out for successful completion 50 – printed for unsuccessful completion 51 – printed out for unsuccessful completion
4	Options of transaction		/	1	Bits set on 1 mean: 0 – transaction will require a printout (the statuses will be 4x i 5x after finishing the receipt) 1 – transaction returns the value (fields 7 and 8)

No	Field name	Content	Separator	Size	Remarks
					2 – transaction returns the data (field 9)
5	Type of value	number	/	1	0 – none 1 – amount 2 – percentage discount 3 – amount discount
6	Transaction value	number	/	1-10	Optional amount of transaction
7	Transaction data		<CR>	0..128	Optional data of transaction
8	Control byte			2	
9		<ESC>\		2	

3.17.10. Controlling the status of PC2 application and receive of orders from PC to PC2.

Ports: PC2

No	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Function				Commands to be sent to PC2 application 1 – readout commands from PC application 2 – set the status of PC2 application transaction
3	Type of transaction				0 – paying 1 – loyalty
4	Command	^r		2	
5	Transaction status		/	1	0 – unknown 1 – started (on the run) 2 – rejected 3 – cancelled 4 – successfully completed 5 – unsuccessfully completed 10 – printed 11 – printed out
6	Options of transaction		/	1	Bits set on 1 mean: 0 – transaction will require a printout (the statuses will be 4x and 5x after finishing the receipt) 1 – transaction returns the value (fields 7 and 8) 2 – transaction returns the data (field 9)
7	Type of value	number	/	1	0 – none 1 – amount 2 – percentage discount 3 – amount discount
8	Value of transaction	number	/	1-10	Optional amount of transaction
9	Date transaction		<CR>	0..128	Optional data of transaction
10	Control byte			2	
11		<ESC>\		2	

Response to function 1:

1		<ESC>P		2	
2	Command	^r		2	
3	Function	Number	/	1	Commands send by PC to PC2

					application: 1 – start the transaction 3 – cancel the transaction
4	Type of transaction	number	/	1	0 – paying 1 – loyalty
5	Options of transaction	number	/	1	(not defined yet)
6	Amount of transaction	number	/	1-10	Optional amount of transaction
7	Data of transaction	Text	<CR>	0..128	Optional data of transaction
8	Control byte			2	
9		<ESC>\		2	

3.17.11. Readout of the header printout.

Query for header printout

1		<ESC>P		2	
2	Command	**^u**		2	
3	Control byte			2	
4		<ESC>\		2	

Response:

1		<ESC>P		2	
2	Command	**#U**		2	
3	Header	Text		0..450	The header format depends on the kind of printer (Quarto has 44 signs in line, VivoA has 48). The header is sent with the spaces, without controlling signs, signalizing the attributes of the line (centering, thickening)
4	Control byte			2	
5		<ESC>\		2	

3.17.12. Collecting information about amount of printed paper.

Ports: PC

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**@p**		2	
3	Function	Number	/	1	1 – readout of quantity 2 – resetting
4	Control byte			2	
5		<ESC>\		2	

Response to function 1:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**@p**		2	

No.	Field name	Content	Separator	Size	Remarks
3	Printout length	number	/	1-10	Value expressed in mm
4	Control byte			2	
5		<ESC>\		2	

3.18. Packet of currency service (approval 2009).

Below were described packets of currency changes, which were entered to the fiscal printers according to the Decree of the Ministry of Finance from 28th November 2008.

3.18.1. Programming currency changing (^b).

Information is recorded in the fiscal memory, there is maximum quantity of currency changes depending on device type (standard - 4 changes).

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	1		1	
3	Command	**^b**		2	
4	Year	00..99	/	2	Two last digits of the year
5	Month	01..12	/	2	Number of month in the year
6	Day	01..31	/	2	Number of day in given month
7	Hour	0..23	/	2	
8	Minute	0..59	/	2	
9	Currency name	Inscription	<CR>	3	Three-letters name of the currency used according to the convention of National Bank of Poland.
10	Exchange rate	Number	/	10..13	from: 0.00000001 to: 9999.99999999
11	Control byte	00..FF		2	
12		<ESC>\		2	

Errors' codes:

       1: printer's clock not initiated,
       2: control byte error,
       4: parameter error

Remarks:

       1: Year, month, day, hour and minute – it is the date of entering the new currency. Switching on the new currency will be done automatically.
       2: Only last record in the fiscal memory about planned currency change is valid.
       3: **WARNING!!** The information is recorded in the fiscal memory of device. The currency change can be executed limited quantity of times.

3.18.2. Programming of mode of printout re-calculating to currency in the receipt's footer (^b).

Information about re-calculation of currency change is recorded in the device's configuration and setting that function enables printing additional information in the receipt's summary. That information contains re-calculation of transaction value to the other currency.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant	0	;	1	
	Printout mode	0..3		1	0 – no re-calculation , 1 – to the previous currency,

No.	Field name	Content	Separator	Size	Remarks
					2 – to the next currency, 3 – to defined currency WARNING! For printout mode 3 currency name and exchange rate are taken from packet fields. Fields date and hour are ignored.
3	Command	**^b**		2	
4	Year	00..99	/	2	Ignored
5	Month	01..12	/	2	Ignored
6	Day	01..31	/	2	Ignored
7	Hour	0..23	/	2	Ignored
8	Minute	0..59	/	2	Ignored
9	Currency name	Inscription	<CR>	3	Three-letters name of the currency used according to the convention of National Bank of Poland.
10	Exchange rate	Number	/	10..13	from: 0.00000001 to: 9999.99999999
11	Control byte	00..FF		2	
12		<ESC>\		2	

Errors' codes:

>1: printer's clock not initiated,
>2: control byte error,
>4: parameter error

3.18.3. Service of payment forms in currency ($b).

Before sending ending of the receipt, there can be described fixed payment in different currencies.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Action	1..2	;	1	
3	Type of payment	0..5	;	1	
4	Reserved	Ignored	;	1	
5	Reserved	Ignored	;	1	
6	Type of value	0..1	;	1	0 – payment 1 – rest of payment
7	Precision of exchange rate	0..8		1	0..4 – default precision (4) 8 – precision for approval 2009 (8)
7	Command	**$b**		2	
8	Amount	Number	/	1..10	Value in the current currency
9	Name	Inscription	<CR>	0..15	Name of currency
10	Exchange rate	Number	<CR>	10..13	from: 0.00000001 to: 9999.99999999
11	Amount of currency	Number	/	1..10	The value is „Amount" multiply by „Exchange rate".
7	Control byte	00..FF		2	
8		<ESC>\		2	

Errors' codes:

>1: printer's clock not initiated,
>2: control byte error,
>4: parameter error

3.19. Packets connected with the electronic copy.

3.19.1. Inquiry about data of the electronic copy (@EP).

Packets for data transmission enable readout of files placed on the memory card of device.
There is possible readout of files from the electronic copy in formats xxxx.txt where xxxx is number of daily report and readout of any other files placed on the card. In file with daily report there are all printouts collected from the previous daily report.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**@EP**		3	
3	Mode		**/**	2	0-Start – starting new task; 1-next data 2-Re-transmission 99-End
4	Type of task		**/**	2	1 – Reports by date (range of dates in range of fields), 2 – reports by numbers (range of numbers in range of fields), 5 – file by names (Name in field Range from)
5	Folder		<CR>		Unit number

6	Range from		<CR>		Depending on task type (4):
					  1- Date of reports from DDMMRRRR
					  2- Number reports from
					  3- Name of file (Type of task 5)

7	Range to		<CR>		Depending on task type (4): 1- Date of reports to DDMMRRRR 2- Number reports to 3- Name of file (Type of task 5)
8	Format of data		/		1 – Fixed format (description in remarks)
9	Control byte	00..FF		2	
10		<ESC>\		2	

<u>Errors' codes:</u>

     2: control byte error,
     4: parameter error

<u>Remarks</u>
1. Beginning a new task is possible even if the previous one wasn't finished yet (the previous task is annulled).
2. In case of error of control sum there should be sent re-transmission packet to read again the same data (Type 2-Retransmission), in that case fields „Type of task" , „Folder", „Range from/to" are ignored. The device doesn't control the quantity of retransmission.
3. If someone wants to read any file, he should choose type 5 and in filed „Range from" write name of the file. If field „Range to" is empty then the file is searched in unit catalogue of device. If folder contains information about catalogue then resent file has format Folder + Range to.
4. Fixed format:
   a. Receiving – if someone run into sign 0x86 then that sign should be omitted and the next sign before adding up is calculated from a formula: new sign = sign xor 0x20. All other signs don't require conversion.
   b. Sending – all signs that meet relationship sign < 0x20 or sign = 0x5c are preceded by sign 0x86, and after it there is added up sign = sign xor 0x20

Resent data:

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**@EP**		3	
3	Index		/	1-6	Index of packet numbered for each file from 0, in case of retransmission index remains the same
4	End marker	0..2	/	1	0-data 1-end of file 2-end of retransmission
5	Name of file		<CR>		Name of resent file
	Format of data		/		The same like in inquiry
	Size of data		/		
6	Data		<CR>	1-512	Content of the file. More information about structure of sent files can be found in chapter „Structure of sent files"
7	Control byte	00..FF		2	
8		<ESC>\		2	

Verification of data (Receipt / Invoice / Daily report / File of copy)

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Mode		;	1	1-Start (beginning of new verification) 2-Data 99-End
3	Type of data			1	1-receipt 2-invoice 3-daily report 4-file
4	Command	**@EV**		3	
5	Unit number		<CR>		
6	Verification code		<CR>	66	Sent during the last packet (Mode = 99) for verification of data correctness.
7	Format of data		/		2 – hexadecimal packed for 256 bytes of data (512 in hex) 3-non formatted data
8	Size of data		/		
9	Data		<CR>	1-256	Data for checking (for file data in format hex)
10	Control byte	00..FF		2	
11		<ESC>\		2	

Error's code:

2: control byte error,
4: parameter error

Remarks:

1. The first packet with data must be sent with set mode1. Every next must be set in mode 2 apart from the last packet. The last packet with data must be in mode 99 and it must have completed field „verification code". In case when the whole data can be placed in 1 packet, there should be sent 2 packets – the first one with data and the second one with empty data and mode 99.
2. Data must be in the following formats:
    a. For receipt – date of receipt in format 'dd-mm-yyyy' + Name + Tax rate of all goods from receipt. Name in capital letters and tax rate in format 'A'..'G'. Additional Total VAT + Total sale + hour in format 'hh:nn' + unit number in format 'ABC 12345678'.

b. For invoice – data prepared in way similar to the receipt. Tax rates in format '22.00', '7.00', 'ZW. '. There is not added up Total sale.
c. Number of printout in format 'W000000' + date in format 'dd-mm-yyyy' + number of report in format '0000' + Sale in format '0.00' (if there is in the report sale in given tax rate) + sale for invoices in rates A..G in format '0.00' (if there is on report sale in that rate) + amount due in format '0.00' + quantity of receipts in format '0' + quantity of invoices in format '0' + amount due increasingly in format '0.00' + hour in format 'hh:nn' + unit number in format 'ABC 12345678'.

Response

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**@EV**		2	
3	Result	0..1	/	1	0-Negative 1-Positive
4	Control byte	00..FF		2	
5		<ESC>\		2	

3.19.1.1. Verification of invoice.

Packets used in invoice verification – without response.

Verification of invoice – beginning.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	0		1	
10	Command	**$j**		2	
17	Control byte	00..FF		2	
18		<ESC>\		2	

Error's code:

2: control byte error,
4: parameter error

Verification of invoice – line

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	1	;	1	
3	Tax rate	0..6		1	0 – A.. 6 – G tax rate with which the goods were sold.
4	Command	**$j**		2	
5	Name of goods	Inscription		1..40	Name of sold goods.
17	Control byte	00..FF		2	
18		<ESC>\		2	

Error's code:

2: control byte error,
4: parameter error.

Remarks:
1. Quantity of packet lines must be adequate to quantity of positions on receipt.

Verification of invoice – ending.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Constant value	2	;	1	
3	Date of invoice issuing: year	0..99	;	1..2	
4	Date of invoice issuing: Month	1..12	;	1..2	
5	Date of invoice issuing: Day	1..31	;	1..2	
6	Date of invoice issuing: hour	0..23	;	1..2	
7	Date of invoice issuing: Minute	0..59		1..2	
8	Command	**$j**		2	
9	Code	Inscription	<CR>	40	Code of verified invoice
10	Unit number	Inscription	<CR>	11	Unit number of device which issued invoice
11	Invoice number	Inscription	<CR>	20	Given by the issuer of invoice
12	VAT value	Number	/	10	VAT total calculated on invoice
13	Gross value	Number	/	10	Gross value of goods on invoice
14	Control byte	00..FF		2	
15		<ESC>\		2	

Error's code:

2: control byte error,
4: parameter error.

Remarks:

1. Quantity of packet lines must be adequate to quantity of positions on receipt.

3.19.2. Structure of sent files.

During operating with memory carrier the fiscal printer establishes on it a catalogue structure. Details of that structure were described below:

```
/XXX00000.000
        id.txt
        idhist.txt
        /0001
                0001.txt
                0002.txt
                (…)
                0099.txt
        /0100
                0100.txt
                (…)
                0199.txt
        /0200
                0200.txt
                (…)
                0299.txt
        /(…)
        /1800
```

Where:

/XXX00000.000 – catalogue established in the main catalogue of memory carrier. It's name contains unit number of fiscal memory of the device which opened the carrier. All data of device will be stored in that catalogue. Symbols: „X" mean alphabet signs and „0" mean digits.
id.txt – identification file, it's structure is described below
idhist.txt – file which contains history of carriers opened by the concrete device
nnnn.txt – data files concerning given daily report. Additionally, depending on daily report number, those files are kept in adequate sub-catalogue. For reports from 1-99, the files will be placed in sub-catalogue **/0001,** the files from 100-199 will be placed in sub-catalogue **/0100** etc.

3.19.2.1. Format of identification file (id.txt) for E Copy carrier – version 1.00.010

```
File:                            id.txt
File content:                  CARRIER ID
File version:                   1.00.010
Type of device:          RKA E FV 1.00.001
Size of line:                        44
Device:                  DELIO E FV 1.00
Unit number:                   ABC12345678
Version of E Copy:              1.00.001
Carrier of E Copy:                 SDCARD
File created:            DD-MM-RRRR GG:MM
Card label:                            1
Opening date:            23-10-2009 12:34
Date of report from:     23-10-2009 00:00
Date of report to:       23-10-2009 00:00
No.of report from:                     1
No.of report to:                       1
Date of printout from:   23-10-2009 12:30
Date of printout to:     23-10-2009 12:30
No.of printout from:                   1
No.of printout to:                     1
Date receipt from:       00-00-0000 00:00
Date receipt to:         00-00-0000 00:00
No.of receipt from:                    0
No.of receipt to:                      0
Date of invoice from:    00-00-0000 00:00
Date of invoice to:      00-00-0000 00:00
No.of invoice from:                    0
No.of invoice to:                      0
TOTAL A:              0.00            0.00
TOTAL B:              0.00            0.00
TOTAL C:              0.00            0.00
TOTAL D:              0.00            0.00
TOTAL E:              0.00            0.00
TOTAL F:              0.00            0.00
TOTAL G:              0.00            0.00
TOTAL AFV:            0.00            0.00
TOTAL BFV:            0.00            0.00
TOTAL CFV:            0.00            0.00
TOTAL DFV:            0.00            0.00
TOTAL EFV:            0.00            0.00
TOTAL FFV:            0.00            0.00
TOTALS GFV:           0.00            0.00
Date of closing carrier:    00-00-0000 00:00
Size of file header:                ####
Signature N:    92be5fc478ba451221f58154d5982c5c
Signature NP:   92be5fc478ba451221f58154d5982c5c
```

Where:

> **Size of file header** – size from the beginning of file to the signatures (together with „N", „NP" signatures)
> **Signature NP** – public signature of header calculated by algorithm SHA1 – signature can be re-calculated by the exterior program.

3.19.2.2. Format of file of carriers history (idhist.txt) E Copy version 1.00.010

```
File:                        idhist.txt
File content:            CARRIERS HISTORY
Version of file:                1.00.010
Type of device:      PRINTER E FV 1.00.001
Size of line:                        44
Device:                  DELIO E FV 1.00
```

```
Unit number:              ABC12345678
Version of E Copy:          1.00.001
Carrier of E Copy:            SDCARD
File created:        DD-MM-RRRR GG:MM
Size of file header:           ####
Offset of carrier's list:      ####
Quantity of positions on list:  ###
Size of position on list:      ####
Label size of position on list: ####
Size of list:               #######
Signature N: 92be5fc478ba451221f58154d5982c5c
Signature NP:92be5fc478ba451221f58154d5982c5c

LIST OF DATA CARRIERS:

Position 1:

File:                        id.txt
File content:             CARRIER ID
Version of file:            1.00.010
Type of device:   PRINTER E FV 1.00.001
Size of line:                      44
Device:              DELIO E FV 1.00
Unit number:              ABC12345678
Version of E Copy:          1.00.001
Carrier of E Copy:            SDCARD
File created:        DD-MM-RRRR GG:MM
Card label:                         1
Unit number:              ABC00100001
Opening date:       23-10-2009 12:34
Date of report from:  23-10-2009 00:00
Date of report to:    23-10-2009 00:00
No.of report from:                  1
No.of report to:                    1
Date of printout from:  23-10-2009 12:30
Date of printout to:    23-10-2009 12:30
No.of printout from:                1
No.of printout to:                  1
Date of receipt from:  00-00-0000 00:00
Date of receipt to:    00-00-0000 00:00
No.of receipt from:                 0
No.of receipt to:                   0
Date of invoice from:  00-00-0000 00:00
Date of invoice to:    00-00-0000 00:00
No.of invoice from:                 0
No.of invoice to:                   0
TOTAL A:              0.00         0.00
TOTAL B:              0.00         0.00
TOTAL C:              0.00         0.00
TOTAL D:              0.00         0.00
TOTAL E:              0.00         0.00
TOTAL F:              0.00         0.00
TOTAL G:              0.00         0.00
TOTAL AFV:            0.00         0.00
TOTAL BFV:            0.00         0.00
TOTAL CFV:            0.00         0.00
TOTAL DFV:            0.00         0.00
TOTAL EFV:            0.00         0.00
TOTAL FFV:            0.00         0.00
TOTAL GFV:            0.00         0.00
Date of closing carrier:   00-00-0000 00:00
Signature N: 92be5fc478ba451221f58154d5982c5c
Signature NP:92be5fc478ba451221f58154d5982c5c

Position 2:

File:                        id.txt
File content:             CARRIER ID
Version of file:            1.00.010
Type of device:   PRINTER E FV 1.00.001
Size of line:                      44
Device:              DELIO E FV 1.00
Unit number:              ABC12345678
Version of E Copy:          1.00.001
Carrier of E Copy:            SDCARD
File created:        DD-MM-RRRR GG:MM
Card label:                         1
```

```
Unit number:                     ABC00100001
Opening date:          23-10-2009 12:34
Date of report from:   23-10-2009 00:00
Date of report t       23-10-2009 00:00
No.of report from:                       1
No.of report to:                         1
Date of printout from: 23-10-2009 12:30
Date of printout to:   23-10-2009 12:30
No.of printout from:                     1
No.of printout to:                       1
Date of receipt from:  00-00-0000 00:00
Date of receipt to:    00-00-0000 00:00
No.of receipt from:                      0
No.of receipt to:                        0
Date of invoice from:  00-00-0000 00:00
Date of invoice to:    00-00-0000 00:00
No.of invoice from:                      0
No.of invoice to:                        0
TOTAL A:               0.00          0.00
TOTAL B:               0.00          0.00
TOTAL C:               0.00          0.00
TOTAL D:               0.00          0.00
TOTAL E:               0.00          0.00
TOTAL F:               0.00          0.00
TOTAL G:               0.00          0.00
TOTAL AFV:             0.00          0.00
TOTAL BFV:             0.00          0.00
TOTAL CFV:             0.00          0.00
TOTAL DFV:             0.00          0.00
TOTAL EFV:             0.00          0.00
TOTAL FFV:             0.00          0.00
TOTAL GFV:             0.00          0.00
Date of closing carrier:   00-00-0000 00:00
Signature N: 92be5fc478ba451221f58154d5982c5c
Signature NP:92be5fc478ba451221f58154d5982c5c
```

Where:

Size of file header – size from the beginning of file to the signatures (together with „N", „NP" signatures)
Offset of carrier list – size from the first list line - it indicates beginning of „File" line
Size of position on list – size of data describing one carrier starting from begin of „File" line to the end of „NP" signature
Label size of position on list – size separating the following positions of the list
Quantity of positions on list – quantity of carriers which were described in the file
Signature NP – public signature of header calculated by algorithm SHA1 – signature can be re-calculated by the exterior program.

3.19.2.3. Format of data file (nnnn.txt) E Copy version 1.00.010

```
File:                           0001.txt
File content:            PRINTOUT DATA
File version:               1.00.010
Type of device:    PRINTER E FV 1.00.001
Size of line:                         44
Device:               DELIO E FV 1.00
Unit number:             ABC12345678
Version of E Copy:            1.00.001
Carrier of E Copy:               SDCARD
File created:         DD-MM-RRRR GG:MM
No.of report:                          1
Date of report:        23-10-2009 00:00
Date of printout from: 23-10-2009 12:30
Date of printout to:   23-10-2009 12:30
No.of printout from:                   1
No.of printout to:                     1
Date of receipt from:  00-00-0000 00:00
Date of receipt to:    00-00-0000 00:00
No.of receipt from:                    0
No.of receipt to:                      0
Date of invoice from:  00-00-0000 00:00
Date of invoice to:    00-00-0000 00:00
No.of invoice from:                    0
No.of invoice to:                      0
No.of resetting from:                  0
No.of resetting to:                    0
```

```
Size of file header:                  ####
Size of data labels:                  ####
Offset printout data:                 ####
Size of printout data:            #########
Offset of table of content:       #########
Size of table of content:         #########
Signature N:7eec755b1b69eca18426993e95f54f1c
Signature NP:eec755b1b69eca18426993e95f54f1c

DATA OF PRINTOUTS:

NIP: 123-456-78-90                       ©§
23-10-2009                        °W000001
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
°DAILY FISCAL R E P O R T
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
VAT   A                             22.00%
VAT   B                              7.00%
VAT   C                              0.00%
VAT   D                              3.00%
G                                SP.ZW.VAT
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
              FISKALIZATION
23-10-2009 12:30
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
23-10-2009              No.of report:  0001
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
SP.OP.A                               0.00
SP.OP.B                               0.00
SP.OP.C                               0.00
SP.OP.D                               0.00
SP.ZW.G                               0.00
SP.OP.AFV                             0.00
SP.OP.BFV                             0.00
SP.OP.CFV                             0.00
SP.OP.DFV                             0.00
SP.ZW.GFV                             0.00
Amount VAT A                          0.00
Amount VAT B                          0.00
Amount VAT D                          0.00
Amount VAT AFV                        0.00
Amount VAT BFV                        0.00
Amount VAT DFV                        0.00
Total VAT:                          ´0.00
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Amount due:                     PLN 0.00
Quantity of receipts:                    0
Quantity of invoices:                    0
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
              INCREASINGLY
Amount VAT A                          0.00
Amount VAT B                          0.00
Amount VAT D                          0.00
Amount VAT AFV                        0.00
Amount VAT BFV                        0.00
Amount VAT DFV                        0.00
Total VAT:                          ´0.00
Amount due:                     PLN 0.00
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
Quantity of positions:                  37
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
#0 K0                              ˇ12:30
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
    288B980900ECE587E071C53F187AF86A D8¬
                »ABC 00100001




P:60bc420425b9961a6ce6a06fcc1d5365fa92aa64
C:71b0d2eeacbf1a35025195e21090f799
Signature DP:  #############################

TABLE OF CONTENT:
```

```
23-10-2009 000000001 02 000000001 0000001316
Signature S:   bcde35fbf0cb1d2025c071e865182aad
Signature SP:  bcde35fbf0cb1d2025c071e865182aad
```

<u>Where:</u>

Size of data labels – size of labels existing between data types (eg. „TABLE OF CONTENT:")
Offset of printout data – beginning of data from which is calculated DP key.
Size of printout data – size of data from which is calculated DP key.
Offset of table of content – position indicating begin of table of content, used in calculating SP key.
Size of table of content – size of data of table content, used in determining SP key.
Size of file header – size from the beginning of file to the signatures (together with „N", „NP" signatures)
Signature NP – public signature of header calculated by algorithm SHA1 – signature can be re-calculated by the exterior program.
Signature DP – public signature of data of content calculated by algorithm SHA1 – signature can be re-calculated by the exterior program.
Signature SP – public signature of table of content calculated by algorithm SHA1 – signature can be re-calculated by the exterior program.

3.19.3. Reports from the electronic copy (@ER).

All printouts stored in memory carrier and in the pocket memory can be printed. However, those printouts will not be recorded again in the memory carrier like reports from the fiscal memory and reports of descriptors.

Printout with range by dates.

No.	Field name	Content	Separator	Size	Remarks
1		<ESC>P		2	
2	Command	**@ER**		2	
3	Type of range	Number	/	1	1 – constant value for printout range by dates 2 – constant value for printout range by numbers
4	Filter of printouts	Number	/	1..2	
5	Source of data	Number	/	1..2	
6	Folder/Unit number	Text	<CR>	0..64	Important only for data source: electronic copy. When shortage, then is used the current one.
7	Range from	Text	<CR>		Depending on type of range
8	Range to	Text	<CR>		Depending on type of range
9	Control byte	00..FF		2	
10		<ESC>\		2	

<u>Where:</u>

Filter of printouts
  1: receipts (range by numbers or dates of receipts)
  2: daily reports (range by numbers or dates of reports)
  3: non fiscal printouts (range by numbers or dates of printouts)
  99: all (range by numbers or dates of printouts)
Source of data
  0: electronic copy
  1: pocket memory
Range from
Range to
  Data in format: DD-MM-YYYY (date in format Y – year , M – month, D – day) or range in numeric format (e.g. from/to number of printout).

<u>Error's code:</u>

2: control byte error,
4: parameter error,
1024: wrong range of report
1042: no space in the pocket memory
1044: printout error from electronic copy
1045: no card
1046: no data
1054: no access to executing command

Remarks:

1. Reports, printouts, receipts and invoices which include many different memory carriers should be executed in stages (entering each carrier separately and sending each time report's command). Information on what carriers are placed data can be observed after sending order of printing (it's visible in header of printed report on device).
2. If carrier of data comes from another device , it is also possible to print reports (list of compatible devices is placed in a Instruction manual).

4. Calculations conducted by the fiscal printer during printing the receipts.

Apart from standard sale mode the fiscal printer has also mode in which it's possible to make configuration of parameters of printer's work as well as there are accessible diagnostic tools.

Access to administrative menu is possible after switching on the printer by simultaneous pressing combination of keys Power, Paper feed and Menu.

Administrative menu has a system presented below (in the older versions of printers it was different). Symbol (*) means values set as default and recommended by the producer. Making reset of the printer causes re-arranging of configurable parameters (administrative mode).

The programmers, whose applications are to be suited to cooperation with fiscal printers, are forced to calculate by themselves the values of specified positions of receipts as well as summary values of receipts and to send them to the printer which controls these values and prints receipts only when the amounts sent by the application are equal to the ones calculated by the printer. Thus, a necessity arises to conduct calculations exactly in the same way as it is done by the printer.

Charging realization of the transaction, the printer gets the information from the system about following receipts' positions (sold articles). This information is sent in a form of sequence of data of receipt line. From the fiscal and calculation point of view, in relation to each article, the following pieces of information are important:

- name of the article,
- price per unit
- quantity
- VAT rate code,
- percentage or amount discount/ surcharge,
- item Gross value.

In fiscal printers, a control of conformability of the GROSS value is realized for a receipt line with the result of multiplication **<price> * <quantity>.** The control performs in such a way that the result of multiplication (rounded up to two positions after the point !) has to be exactly equal to the sent GROSS. In other case, error No 20 will be reported.

Name of the article is important for the printer because of control of correctness of the VAT rate (the printer possesses a database including the information about VAT rates' for commodities of specified names).

At the beginning of realization of transaction (after receipting the header of the receipt), the printer resets the sums of sale in tax groups for the receipt, located in the TOTAL table for VAT [A..G, Z i.e. the following are conducted:

TOTAL [A] = 0
TOTAL [B] = 0
TOTAL [C] = 0
TOTAL [D] = 0
TOTAL [E] = 0
TOTAL [F] = 0
TOTAL [G] = 0
TOTAL [Z] = 0

After receipting each receipt position there is a GROSS value for VAT and rate code VAT = A, B, C, D, E, F, G or Z.

We calculate:

- When there is no discount/ overhead:

    TOTAL [VAT] = TOTAL [VAT] + $GROSS_{0,01}$

- When there is a amount discount:

    TOTAL [VAT] = TOTAL [VAT] + $GROSS_{0,01}$ – $DISCOUNT_{0,01}$

- When there is a percentage discount:

- o For the first method of discount calculation

  TOTAL [VAT] = TOTAL [VAT] + (1 – (DISCOUNT / 100)) * GROSS $_{0,01}$

  - o For the second method of discount calculation

  TOTAL [VAT] = TOTAL [VAT] + GROSS $_{0,01}$ - (GROSS $_{0,01}$ * DISCOUNT / 100) $_{0,01}$

- • For amount overhead:

  TOTAL [VAT] = TOTAL [VAT] + GROSS $_{0,01}$ + OVERHEAD$_{0,01}$

- • For percentage overhead:

  - o For the first method of discount calculation

  TOTAL [VAT] = TOTAL [VAT] + (1 + (OVERHEAD / 100)) * GROSS $_{0,01}$

  - o For the second method of discount calculation

  TOTAL [VAT] = TOTAL [VAT] + GROSS $_{0,01}$ - (GROSS $_{0,01}$ * OVERHEAD / 100) $_{0,01}$

Where:

Symbol $_{0,01}$ at marking the amount means that it shall be rounded up to full grosz/(cents),
DISCOUNT, OVERHEAD is the percentage or amount value of the DISCOUNT field, located by the application in a sequence including the data of the receipt line.

In the ending of the receipt one shall send the TOTAL amount, calculated as follows:

- • If there is no discount/ overhead for the whole receipt:

  TOTAL = TOTAL sum [A..G, Z]

- • If there is a percentage discount for the whole receipt:

  at first we calculate new values for VAT = A..G, Z:

  - o For the first method of discount calculation

  TOTAL [VAT] = (1 - (DISCOUNT / 100)) * TOTAL [VAT]$_{0,01}$

  - o For the second method of discount calculation

  TOTAL [VAT] = TOTAL [VAT]$_{0,01}$ - (TOTAL [VAT]$_{0,01}$ * DISCOUNT / 100) $_{0,01}$

  and then:

  TOTAL = TOTAL sum [A..G, Z]

- • If there is a amount discount for the whole receipt:

  At first, the value of percentage discount is calculated; after its appliance, the demanded amount discount is provided:

  DISCOUNT = 100 * AMOUNT DISCOUNT / TOTAL

  Later on, new values of totalizers are calculated (TOTAL [VAT]) as it was described above (in case of percentage discount for the whole receipt). If the sum of particular totalizers deriving from calculations is not equal to the value of the receipt after providing amount discount, the performance looks as follows:

  - o If the actual amount discount is higher than the sum of discounts in particular rates, the lacking grosz (cents) shall be separately subtracted against following totalizers, starting from the biggest one (if the totalizers are equal than starting from A in the alphabetic order) as long as they become totally split.

- If the actual amount discount is lower than the sum of discounts in particular rates, the lacking grosz (cents) shall be separately added to following totalizers, starting from the smallest one (if the totalizers are equal than starting from G in the anti-alphabetic order) as long as they become totally split.

- If there is a percentage overhead for the whole receipt:

  at first we calculate new values for VAT = A..G, Z:

  - For the first method of discount calculation

  $$TOTAL\ [VAT] = (1 - (OVERHEAD / 100)) * TOTAL\ [VAT]_{0,01}$$

  - For the second method of discount calculation

  $$TOTAL\ [VAT] = TOTAL\ [VAT]_{0,01} - (TOTAL\ [VAT]_{0,01} * OVERHEAD / 100)_{0,01}$$

  and then:

  $$TOTAL = TOTAL\ sum\ [A..G, Z]$$

- If there is a amount overhead for the whole receipt:

  At first, the value of percentage overhead is calculated; after its appliance, the demanded amount overhead is provided:

  $$OVERHEAD = 100 * AMOUNT\ OVERHEAD / TOTAL$$

  Later on, new values of totalizers are calculated (TOTAL [VAT]) as it was described above (in case of percentage overhead for the whole receipt). If the sum of particular totalizers deriving from calculations is not equal to the value of the receipt after providing amount overhead, the performance looks as follows:

  - If the actual amount overhead is higher than the sum of overheads in particular rates, the lacking grosze shall be separately subtracted against following totalizers, starting from the biggest one (if the totalizers are equal than starting from A in the alphabetic order) as long as they become totally split.

  - If the actual amount overhead is lower than the sum of overheads in particular rates, the lacking grosze shall be separately added to following totalizers, starting from the smallest one (if the totalizers are equal than starting from G in the anti-alphabetic order) as long as they become totally split.

Values of returnable packages are not recognized in the TOTAL amount. Their data shall be sent after sending the receipt line using the sequences: service of deposit in the receipt line, received deposit (for the sale of the package), storno (reversal) of the received deposit, released for the return of the package) and storno storno of the released package or in approval of transaction with forms of payment (2). Their sums are to be sent in proper fields of the sequence approval of transaction with forms of payment (1).

Below, there is presented an example of a receipt including 5 commodities, 2 received securities and 1 returned deposit, illustrating the rules of conducting the calculations by a fiscal printer (the second method of discount calculation is set).

```
          VENTO
NIP: 123-456-78-90
23-07-2001.............U000070
........PARAGON FISKALNY.......
Szynka staropolska 0.237*22.99
                          5.45A
Cukier 25*2.33            58.25A
RABAT 3.00%               -1.75A
Twaróg 0.431*7.49          3.23B
Mleko 1*2.03               2.03B
Jabłka 0.97*3.28           3.18Z
Razem:                    70.39
RABAT 1.00%...................
SP.OP.A: 61.33 PTU 22.00%  11.06
SP.OP.B: 5.21 PTU 7.00%     0.34
SP.ZW.G: 3.15
Suma PTU:..................11.40
Suma zł:...................69.69
F000030
#00A.......................08:28
         ⊭⊐ ABC 12345678

.ROZLICZENIE OPAKOWAŃ ZWROTNYCH.
Opak. zwr.1 1*0.45          0.45
Opak. zwr.2 1*0.35          0.35
Opak. zwr.3 -2*0.40.........-0.80
Do zapłaty:               69.69
Gotówka :                 69.69
```

The figure presents such bill printed out by a VENTO printer. The sent data and calculations look as follows:

1. Receipt header Sequence: **<ESC>P0$h83<ESC>**

2. Receipt line No 1 - Szynka staropolska – 0,237 kg unit price 22,99 zł for kg, it give 5,44863 zł, after rounding up to full cents/groszy 5,45 zł. Sequence:
   <ESC>P 1$l Szynka staropolska <CR> 0.237 kg <CR> A / 22.99 / 5.45 / BD <ESC>\

   TOTAL for PTU A = 5,45

3. Receipt line No 2 - Cukier – 25 kg unit price 2,33 zł for kg, ,it give 58,25 zł. Sequence:
   <ESC>P 2;2 $l Cukier <CR> 25 kg <CR> A / 2.33 / 58.25 / 3.00 / E0 <ESC>\
   After 3% of discount gross value is following 58,25 – 0.03 * 58,25 = 56,5025, after rounding up to full cents/groszy 56,50 zł.
   TOTAL for PTU A = 5,45 + 56,50 = 61,95

4. Receipt line No 3 - Twaróg – 0,431 kg, unit price 7,49 zł for kg, it give 3,22819 zł, after rounding up to full cents/groszy 3,23 zł. Sequence:
   <ESC>P 3 $l Twar<A2h>g <CR> 0.431 kg <CR> B / 7.49 / 3.23 / 10 <ESC>\
   TOTAL for PTU B = 3,23

5. Receipt line No 4 - Mleko – 1 l, unit price 2,03 zł for liter, it give 2,03 zł. Sequence:
   <ESC>P 4 $l Mleko <CR> 1 l <CR> B / 2.03 / 2.03 / D3 <ESC>\
   TOTAL for PTU B = 3,23 + 2,03 = 5,26

6. Receipts line No 5 - Jabłka – 0,97 kg, unit price 3,28 zł, for kg, it give 3,1816 zł, after rounding up to full cents/groszy 3,18 zł. Sequence:
   <ESC>P 5 $l Jab<92h>ka <CR> 0.97 kg <CR> Z / 3.28 / 3.18 / 19 <ESC>\
   TOTAL for PTU Z = 3,18

7. Providing 1% discount for the whole receipt – calculating new TOTAL value:
   TOTAL for VAT A = TOTAL for VAT A – 0,01 * TOTAL for VAT A = 61,95 – 0,01 * 61,95 = 61,3305, after rounding up to full cents/groszy 61,33
   TOTAL for VAT B = TOTAL for VAT B – 0,01 * TOTAL for VAT B = 5,26 – 0,01 * 5,26 = 5,2074 , after rounding up to full cents/groszy 5,21
   TOTAL for VAT Z = TOTAL for VAT Z – 0,01 * TOTAL for VAT Z = 3,18 – 0,01 * 3,18 = 3,1482, after rounding up to full cents/groszy 3,15

   Summary of the dues for deliveries:

   TOTAL = TOTAL for VAT A + TOTAL for VAT B + ... + TOTAL for VAT Z = 61,33 + 5,21 + 3,15 = 69,69

8. Deposit charged for one returnable package No 1 cost 0,45zł per unit.. Sequence:
   <ESC>P 6$d 0.45 / 1 <CR> 1 <CR> B9 <ESC>
   CHARGED DEPOSITS = 0,45

9. Deposit charged for one returnable package No 2 cost 0,35zł per unit.. Sequence:
<ESC>P 6$d 0.35 / 2 <CR> 1 <CR> BD <ESC>\
CHARGED DEPOSITS = 0,45 + 0,35 = 0,80

10. Deposit returned for one returnable package No 3 cost 0,40zł per unit.. Sequence:
<ESC>P 10$d 0.80 / 3 <CR> 2 <CR> 86 <ESC>\
RETURNED DEPOSITS = 0,80

11. Ending the receipt with forms of payment (1). Sequence:
<ESC>P 0;0;1;1;1;0;0;0;1;1;0 $x 00A <CR> <CR> <CR> <CR> <CR> <CR> <CR> <CR> <CR> 70.39 /
1.00 / 69.69 / 0 / 0 / 0 / 0.80 / 0.80 / 0.00 / CD <ESC>\

5. Configuration of the printer's work – „Administration mode".

The printer possesses, besides the standard sales mode, a mode in which it is possible to conduct a configuration of parameters of printer's work and in which diagnostic tools are available.

The access to administration menu is possible after starting the printer by pushing simultaneously a combination of Power Supply, Paper outcome and Menu buttons.

The construction of administration menu is presented below (in older versions of the printers it was slightly different). The (*) symbol means presumably set values which are advised by the manufacturer. Resetting of the printer leads to resetting configuration parameters (Administration mode) into presumable values. Only options which can be meaning for the programmers were described.

1   Configuration
   1.1 Energy
       1.1.1. Auto set off
           1.1.1.1 After [s]:
           1.1.1.2 Auto blinking
   1.2. Communication
       1.2.1.Communication control

            Choosing the controlling of transfer in sequence communication of the printer: software-facility XONXOFF+RTS CTS or facility only RTS-CTS.

1.2.1.1. XONXOFF+RTSCTS
1.2.1.2. RTSCTS
 1.2.2. Communication protocol
           1.2.2.1. POSNET
           The first method of calculating the discount is presumable.
           Released VAT rates sent back by the printer are of value = 101 and the non-used ones = 100.
           The value of returnable packages is calculated as multiplication of price and quantity

           1.2.2.2. NOVITUS
           The second method of calculating the discount is presumable.
           Released VAT rates sent back by the printer are of value = 99.99 and the non-used ones = 98.99.
           The price of returnable packages is calculated as multiplication of value and quantity

   1.3. Conformability

        Auxiliary settings to fit to older versions of applications sending the data of additional lines. Because of limitations of new approval process it is not possible to send any possible text on the additional receipt lines. Taking into consideration programs including the name of the printer and format of the unique name, a possibility of setting the way of sending this data back by the printer was introduced.

 1.3.1. Additional receipt lines
1.3.1.1. None
1.3.1.2. Constant

            The printer allows two modes of reaction for receipting additional lines:

            None - ignoring additional lines

            Constant – constant text of additional lines saved from the first sales receipt of a the particular day. It is treated as the DECLARED text. If the printer receives an identical one in the further receipts – it will print it below the receipt. The content of DECLARED TEXT will be specified in the daily report. In case that in the further issued receipts the content of the text would not correspond with the DECLARED one, such content would be ignored and will not be printed out.

   1.3.2. Source of additional line
       1.3.2.1. Foot note
       1.3.2.2. Header

            Additional lines printed below the receipt will be taken from the received additional foot note lines (Command Beginning of transaction) or additional header lines (Commands Standard

transaction approval, Approval of transaction with forms of payment (1). , Approval of transaction with forms of payment (1) (2).).

    1.3.3. Line No System P.

1.3.3.1. None
1.3.3.2. First
1.3.3.3. Second
1.3.3.4. Third
1.3.3.5. Fourth
1.3.3.6. Fifth
1.3.3.7. Last

In receipt additional lines it is possible to send an individually modified number (the so called System No), which can be the account, the order, etc. This option determines whether the printer is to readout and print the modified system number in additional lines and determines which of the additional lines includes the system number. The line including the system No is not a part of the DECLARED TEXT, it is not printed at the daily report, It can vary for each receipt. It is printed with a „System No" description

Attention! If None (additional lines) was chosen in option 1.3.1 than independently from the setting of the described option, the system will not be printed.

    1.3.4. Sent back name

1.3.4.1. VIVO (in VIVO printers) or VENTO (in VENTO printers) or QUARTO (in QUARTO printers) or DELIO (in DELIO PRIME printers)
1.3.4.2. WIKING
1.3.4.3. POSNET

Conformability – the name sent: Possibility of configuration the printer for applications determining the type of communication protocol after the sent facility name.

    1.3.5. Un. No sent
        1.3.5.1. XXX ########
        1.3.5.2. XX ########

In order to provide compatible work with the older versions of the programs it is possible to cut the first character in the information sent back about printer's unique name. 3 letters + 8 digits – full format, 2 letters + 8 digits – format with the first letter cut.

    1.4 Printout
        1.4.1. Printout contrast
            1.4.1.1. Low
            1.4.1.2. Normal
            1.4.1.3. High
        1.4.2. Receipt buffer
            1.4.2.1. on
            1.4.2.2. off
    1.5. Displaying
        1.5.1. Display options
            1.5.1.1. Supply status
            1.5.1.2. Sum on w.kl.
        1.5.2. Reeling sensor
            1.5.2.1. on
            1.5.2.2. off

2. Functions
    2.1.Set the clock
    2.2. Closing
        2.2.1. By dates
        2.2.2. By numbers
    2.3 RAM reset

3. Tests
3.1. All

6. Alphabetic specification of commands realized by fiscal printers.

The table below includes an alphabetic specification of commands of fiscal printers, useful while analyzing controlling sequences.

Command	Command name
#b	Database control
^b	Programming currency change (approval 2009) Programming printing mode of re-calculating to currency in the receipt's footer (approval 2009)
#c	Demand of sending back the time set in the printer
^c	Configuration settings
@c	Order of setting invoice options
#d	Payout from the cash register
#e	Setting the mode of error's service
#f	Printing the cash register/shift report including the form of payment (1)
#g	Sale receipt
#h	Transaction of recognition (return of goods)
#i	Payment to the cash register
#k	Printing the report of cash register/shift
#l	Pull out the paper
#m	Printing the cash register/shift report including form of payment (2)
#n	Demand of sending back the code of error of the last command
#o	Printing periodical report
#p	Log-in the cashier
#q	Log-out the cahier
#r	Printing daily report
#s	Demand of sending back cash information
#s	Readout of the fiscal memory content.
#t	Cash register status
#v	Sequence sending back the type and version of software
#w	Return of package
$b	Service of forms of payment Service of forms of payment in currency (approval 2009)
$c	Setting the clock
$d	Controlling the display/drawer
$e	Annulling of transaction
$e	Standard transaction approval
^e	*Setting notifications on PC2
$f	Programming the header
$h	Beginning of transaction
$j	Verification of the invoice
$l	Receipt's line
$l	Service of deposit in receipt's line
^l	*Receipt's line
?l	*Question about data from the last receipt
$L	Discount /overhead for a group of goods in the particular VAT rate
^m	*Handling the controlling of modem lines of transmission of AUX1 and AUX2 by ports PC1 and PC2.

?m	*3.17.6. Handling the data of logs of communication **monitor.**
$n	Discount / overhead during transaction
$o	Programming date of periodical review
$p	Changing VAT rates
$r	Choosing the method of discount accounting
$r	Changing mode of resenting cash information (Type 22)
^r	*Controlling the status of PC2 application and receiving orders from application PC for PC2
^s	*3.17.9. Controlling PC2 application from the PC and receiving the status.
^u	Readout of the receipt's header
$w	Additional non-fiscal printouts
$w	Additional non fiscal printouts
$x	Approval of transaction with forms of payment (1)
^x	*Handling tunnelling the transmission of AUX1 and AUX2 ports PC1 and PC2.
$y	Approval of transaction with forms of payment (2)
$Y	Discount / overhead to the receipt of sub-total.
$z	Additional lines on the receipt after fiscal logo
$z	Additional lines on the receipt after fiscal logo
$z	Payment in EURO.
^t	Programming date of periodical review
^t	Programming date of service blockade
10$d	Returned deposit (return of package)
11$d	Storno of returned deposit
6$d	Taken deposit (for package sale)
7$d	Storno of taken deposit
@EP	Inquiry about data of electronic copy
@EV	Verification of data from electronic copy
@ER	Reports from electronic copy

---

* Packets existing in printers Quarto and newer ones

7. Description of interfaces.

The basic way of communication with the printer is the sequential interface RS-232. Sequential interface of the printer works as a voltage interface (according to the V.24 / RS-232C standard). Communication with the computer can also recognise equipment handshaking RTS/CTS DTR/DSR.

7.1. Description of serial interface.

Parameters of serial interface:

PARAMETER	SIZE
Transmission speed	*1200 bods *2400 bods *4800 bods 9600 bods *19200 bods *38400 bods *57600 bods *115200 bods
Quantity of information bits	8
Parity	none,
Quantity of STOP bits	1
Receiver communication protocol	**RTS/CTS, XON-XOFF, *none**
Sender communication protocol	none

Attention:
(*) Parameters present in QUARTO printers and more recent ones.

Be aware that the last parameter in the above line shall be interpreted so that the computer has no possibility of stopping the data transmission through the printer. It is important that according to the[1] V.24 norm, the maximal length of the link must not exceed 15 meters (at transfer speed 9600 bods).

Serial interface signals:

PIN	NAME	TYPE	DESCRIPTION
1	DSR	We	Modem signal – equipment handshake
2	SIN	Wy	Exit of sequence data
3	RTS1	Wy	Modem signal – equipment handshake
4	SOUT	We	Entry of sequence data
5	CTS	We	Modem signal – equipment handshake
6	DTR/SZUF	Wy	The readiness to control active drawers
7	VCC	-	External electrical facilities power supply +5V
8	GND	-	Signal mass

7.2. Connecting cable for protocol XON/XOFF and RTS/CTS.
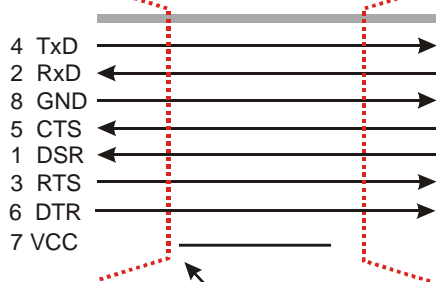
Figure description:

Przewód komunikacji – communication cable; drukarka – printer; Złącze – joint; Żeńskie – female; Ekran – screen; połaczyć z obudową tylko od strony... – connect with the frame only from thew side...; Odciąć żyłę przed zaciśnięciem złącza tak aby pin nr 7 nie był podłączony – cut the strand prior to fastening the joint so that pin No 7 was not joined
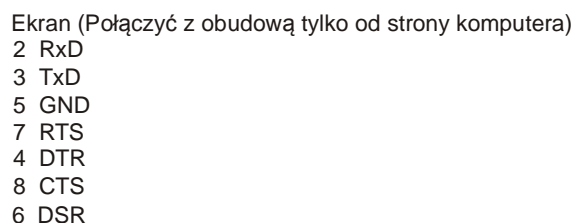
Przewód komunikacji Xon-Xoff i RTS-CTS.

Drukarka   **Komputer**

Złącze RJ 45 8/8   DB9F (Żeńskie)

Ekran (Połączyć z obudową tylko od strony komputera)

Drukarka	Komputer
4 TxD →	2 RxD
2 RxD ←	3 TxD
8 GND →	5 GND
5 CTS ←	7 RTS
1 DSR ←	4 DTR
3 RTS →	8 CTS
6 DTR →	6 DSR
7 VCC	

Odciąć żyłę przed zaciśnięciem złącza
tak aby pin nr 7 nie był podłączony

7.3. Sequence of exits of plug RJ45 8/8 for linking external facilities.

All conduits used for linking external facilities on the side of the drawer are ended with an electric-telephone plug RJ45 8/8. Deployment of its pins is shown on the figure below.:
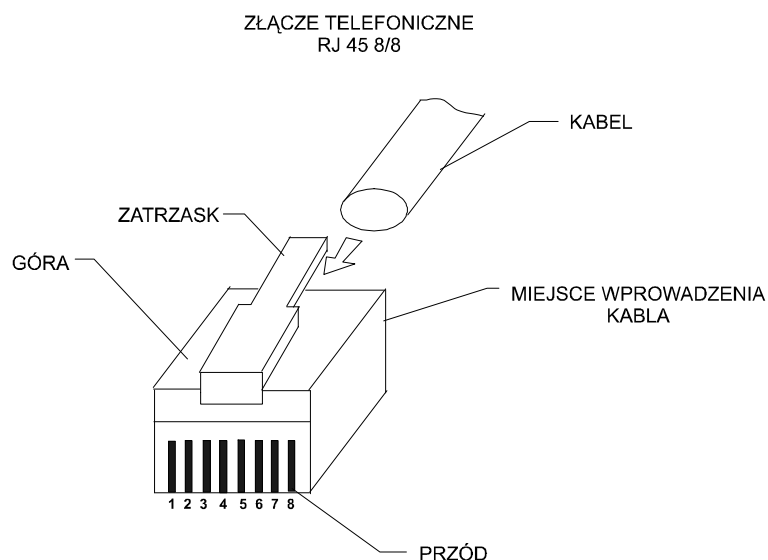
ZŁĄCZE TELEFONICZNE
RJ 45 8/8

KABEL

ZATRZASK

GÓRA

MIEJSCE WPROWADZENIA
KABLA

1 2 3 4 5 6 7 8

PRZÓD

Figure description:
zatrzask – fitting; kabel – cable; miejsce wprowadzenia – point of entrance; przód – front; góra – top

7.4. Printer – active drawer connection.

The printer possesses the possibility of joining a drawer for cash. Only an „active drawer" can be joined to the printer with a separate power supply of the lock. To control an „active drawer" one should link it to the socket of sequential port. The drawer is controlled by negative voltage (-12V) of the DTR signal. Because of the fact that the drawer possesses only one interface socket, to make it possible to control the and the drawer, it is necessary to apply a socket splitter (from 1 to 2, signals 1:1).

PIN in the printer PIN in RJ 8/8	SIGNAL	DESCRIPTION
6	DTR/SZUF	Signal activating the opening of the socket
8	GND	Signal mass

8. Errors.

The following errors can appear during the work of the printer:

Code	Description
1	RTC clock not initiated
2	Wrong control byte
3	Wrong quantity of parameters
4	Wrong parameter
5	Error on operation on RTC clock
6	Error of operation on fiscal module
7	Wrong date
8	Operation error – non-zero totalizers
9	Error of entry/ exit operation
10	Exceeded range of data
11	Wrong a quantity of VAT rates
12	Wrong header
13	The facility cannot be re-fiscalized
14	The header cannot be recorded
15	Wrong additional lines
16	Wrong name of commodity
17	Wrong quantity
18	Wrong PLU VAT rate
19	Wrong PLU price
20	Wrong PLU value
21	Receipt was not started
22	Error in storno (reversal) operation
23	Wrong quantity of receipt lines
24	Overfilling of printout buffer
25	Wrong text or cashier name
26	Wrong value of payment
27	Wrong total value
28	Overfilling sales totalizer
29	Trial to finish a non-started receipt
30	Wrong value of payment 2
31	Overfilling of cash register status
32	Negative cash register status was replaced by a „zero" one
33	Wrong shift text
34	Wrong value or text
35	Sales totalizers are empty
36	The record already exists
37	Cancelled by the user
38	Wrong name
39	Wrong symbol of VAT rate
40	Not programmed header

41	Wrong cash register number
42	Wrong cashier's number
43	Wrong receipt number
44	Wrong customer's name
45	Wrong terminal
46	Wrong name of credit card
47	Wrong number of credit card
48	Wrong month of validity of credit card
49	Wrong year of validity of credit card
50	Wrong authorization code
51	Wrong amount
52	**Not empty table of pricing
53	**Value divergent with pricing
54	**Lack of pricing for medicine
55	**Lack of medicine description
56	**Error of CHARGE amount
57	**Overfilling of pricing table
58	Offline receipt full
82	Not permitted command
83	Wrong value of deposit
84	Exceeded number of sent inscriptions
1000	Initiation error
1001	RAM harm
1002	Receipt already started
1003	Lack of VAT rate identifier
1004	Wrong discount
1005	Wrong data
1006	The printer is not in a fiscal mode
1007	Non-programmed VAT rates
1008	Full fiscal memory
1009	Wrong control sum of RAM
1010	Wrong control sum of database
1011	Wrong control sum of header
1012	Wrong control sum of cashier's name
1013	Wrong control sum of cash register number
1014	Data updating failed
1015	non-programmed unique number
1016	Lack of fiscal memory
1017	Lack of printing mechanism

1018	Lack of display
1019	Fiscal memory was changed
1020	Identical VAT rates have already been programmed
1021	The facility is only in a readout mode
1022	Non-recognized Command
1023	Wrong Command
1024	Wrong range of report
1025	Lack of report data in the given range
1026	Overfilling of the transmission buffer
1027	Non-finished fiscal mode
1028	Harm of fiscal memory
1029	Exceeded limit of limitations in fiscal memory
1030	Harmed map of fiscal memory
1031	Command sent in a wrong mode
1032	Wrong frame indicator
1033	*Fiscal memory is busy
1034	**Fiscal printer is busy
1037	No paper
1038	Error of electronic copy record
1039	Error of memory card installation
1040	Memory card was closed
1041	Error of electronic copy verification
1042	Pocket memory full
1043	Non recorded electronic copy
1044	Error of electronic copy printout
1045	No card
1046	No data
1047	Lack of card readiness
1048	Error of card closing
1049	Error of card opening
1050	Error of id.txt file
1051	Error of no.txt file
1052	Error of files base replaying
1053	Error of memory card password
1054	No access
1055	Error of pocket memory
1056	Error of pocket memory

*Additional numbers of errors appearing in QUARTO and DELIO PRIME fiscal printers
** Error's code appearing in pharmaceutical fiscal printers

1057	Error of card base of electronic copy
1058	Error of files base of electronic copy
1075	Incorrect format of graphic header (e.g. too big dimensions)
1076	Header already programmed, one must delete existing header and then program a new one
9999	Fatal error