PROGRAMMING MANUAL

FISCAL PRINTER

WITH *VMAX*® TECNOLOGY

CURAZAO

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I. Introduction

This document is a guide of the communication protocol and the low level commands that the programmer can use to integrate their software with fiscal printers based on Vmax technology developed for Curacao. You will also find a complete description of the fiscal controller features on a technical and operative level.

The integration of your software system and fiscal printers with Vmax Technology is supported by many operative platforms such as: UNIX, Win32, Win64, Linux, MS-DOS and Win16.

II. Communication Protocol

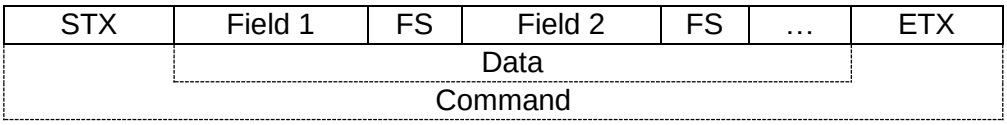
1. Low-level Protocol

The protocol provides a way to send ‘n’ fields to the printer within the frame of the command structure. The set of fields, framing bytes not included, are called ‘data’. Each data field can contain bytes from 0x20 to 0xFF and the length of any command sent to the printer must be under 2048 bytes.

The reserved characters used to provide the frame of the command structure are:

- 0x02 STX Start of the package
- 0x03 ETX End of the package
- 0x06 ACK Positive answer
- 0x07 BEL Intermediate response
- 0x15 NAK Negative answer
- 0x1C FS Field separator

The format of the protocol is:



2. Fiscal Printer Operation

The fiscal printer operation is defined by states, each of the possible operations is only allowed in specific states. These states indicate if the printer is in the middle of a process, e.g. generating an invoice, as well as the printer's current status.

The current state of the printer can be obtained with the Get State command; this command is valid no matter the state.

Table 1 shows all the possible states of the printer.

STATE	Description
0	Standby
1	Start of sale
2	Sale
3	Subtotal
4	Payment
5	End of sale
6	Non Fiscal
7	Reserved
8	Error
9	Start of return
10	Return
11	Reading fiscal info
12	Storing logo
13	Read only

Table 1: Fiscal printer states

The printer will only accept commands received by the user port (host port), as long as the command is valid and has the proper structure.

After each received command, the printer will return one byte to signal whether the operation failed (NAK) or was successful (ACK). If the proper response for a command includes additional information, it will be returned as fields within the same structure used for commands, followed by the ACK byte signaling the successful operation.

Certain commands could take longer than others to be executed. When necessary, in order to confirm the communication remains active during the execution of a command, the printer will send an Intermediate response byte (BEL) each 500ms.

3. Command Structure

The commands must be constructed as follows:

STX	**Command code**	FS	**Field 1**	FS	**…**	FS	**Field n**	ETX

Command code: Mandatory byte identifying the command.

Fields 1 to n: Extra fields. These are the parameters needed by each command. The amount, length and data type of these fields will depend on the command

Example: Set date and time

<2> <35> <28> 08052014 <28> 124530 < 3>

STX	**Command code**	FS	**Field 1**	FS	**Field 2**	ETX
<2>	<35>	<28>	08052014	<28>	124530	<3>

In this document the brackets are used to indicate the actual value of a byte, where no brackets are used the information is represented in ASCII.

4. Supported Data types

Data type	Symbol	Description/Range
Alphanumeric	A	‘0’-‘9’, ‘a’-‘z’, ‘A’-‘Z’
Numeric	N	‘0’-‘9’
Printable	P	0x20-0xFF
Date	D	DDMMAAAA
Time	T	HHMMSS
Hexadecimal	H	0x00 – 0xFF
Additional conditions		
Optional	O	The field is optional
Mandatory	M	The field is mandatory
Conditional	C	The field is mandatory is a condition is met
Maximum Length	LM	The field’s length can be anywhere between 1 and the indicated value
Obligatory Length	LO	The field’s length must be equal to the indicated value
Rich text	RT	Allows rich text. (Bold, doubled height, doubled width) and barcode.

Table 2: Supported data types

4.1. Sending rich text (RT) to the printer

The protocol lets the user assign certain attributes to the text to be printed, it's important to note that only some commands accept rich text. To use this feature, the first byte of the text must be a control byte that signals the use of rich text, while a second byte set the attribute to be used. Attributes will be assigned to the whole line. Barcodes require further information after the second byte.

Rich text must be sent this way:

Text field						
Start RT	**Attributes**	Type	Print Char	Width	Height	**Text**
		Only for Barcodes				

- **Start RT:** Control byte that marks the text field as rich.

  [Value] Hex: 0x 0x1B

  Dec: 27

- **Attributes:** Byte that identifies the attributes to be used.

Bit	Attribute
0	Reserved
1	Reserved
2	Bold
3	Doubled height
4	Doubled width
5	Underlined
6	Reduced
7	Barcode

Table 3: Rich text attributes

When barcode is selected no other attribute can be selected, all other bits must be 0. In that case the following information must then be sent

- Type**:** Byte that determines the type of barcode to be printed

Value (Hex)	Value (Dec)	Barcode type	Text length (k)	Data range (d)
0x30	48	UPC-E	11≤k≤12	48≤d≤57 (‘0’≤d≤‘9’)
0x31	49	UPC-A	11≤k≤12	48≤d≤57 (‘0’≤d≤‘9’)
0x32	50	JAN/EAN8	7≤k≤8	48≤d≤57 (‘0’≤d≤‘9’)
0x33	51	JAN/EAN13	12≤k≤13	48≤d≤57 (‘0’≤d≤‘9’)
0x34	52	Code39	1≤k	48≤d≤57 (‘0’≤d≤‘9’) 65≤d≤90 (‘A’≤d≤‘Z’) 32, 36, 37, 43, 45, 46, 47 (SP, ‘$’, ‘%’, ‘+’, ‘-‘, ‘.’, ‘/’)
0x35	53	ITF	1≤k (Par)	48≤d≤57 (‘0’≤d≤‘9’)
0x36	54	Code128	1≤k	32≤d≤127
0x37	55	Code93	1≤k	32≤d≤127
0x38	56	NW-7	1≤k	48≤d≤57 (‘0’≤d≤‘9’) 65≤d≤68 (‘A’≤d≤‘D’) 36, 37, 43, 45, 46, 47, 58 (‘$’, ‘%’, ‘+’, ‘-‘, ‘.’, ‘/’, ‘:’) 97, 98, 99, 100 (‘a’, ‘b’, ‘c’, ‘d’)

Table 4: Barcode parameters: Type

- Print Char**:** Byte that determines whether the characters are printed beneath the barcode or not.

Value (Hex)	Value(Dec)	Option
0x30	48	Don't print
0x31	49	Print

Table 5: Barcode parameters: Print Char

- Width**:** Byte defining the width of the barcode. Between '1' and '7' (0x31 and 0x37)
- Height**:** Byte defining the height of the barcode. Between 1 and 255 (0x01 and 0xFF)

The last part of the field should be the text.

- **Text:** The text or characters to be printed. If the text will be printed as a barcode, the value of these characters must be within the ones described in the table under Type

III. Response codes

When the Get State command is sent the printer returns the state as well as a code describing the result of the previous command. If the previous command returned ACK, then the response code will be 0. In case the previous command returned NAK, then the response code can help determine what went wrong. The following table details all response codes:

Value (Hex)	Value (Dec)	Description
0x0000	0	Last command successful.
0x0101	257	Command invalid in the current state.
0x0102	258	Command invalid in the current document.
0x0103	259	Service jumper connected.
0x0105	261	Command requires service jumper.
0x0107	263	Invalid command.
0x0108	264	Command invalid through USB port.
0x0109	265	Command missing mandatory field.
0x0110	272	Invalid field length.
0x0111	273	Field value is invalid or out of range.
0x0112	274	Inactive TAX rate.
0x0202	514	Printing device out of line.
0x0204	516	Printing device out of paper.
0x0205	517	Invalid speed.
0x0301	769	Set fiscal info error.
0x0302	770	Set date error.
0x0303	771	Invalid date.
0x0402	1026	CRIB cannot be modified.
0x0501	1281	Transaction memory full.

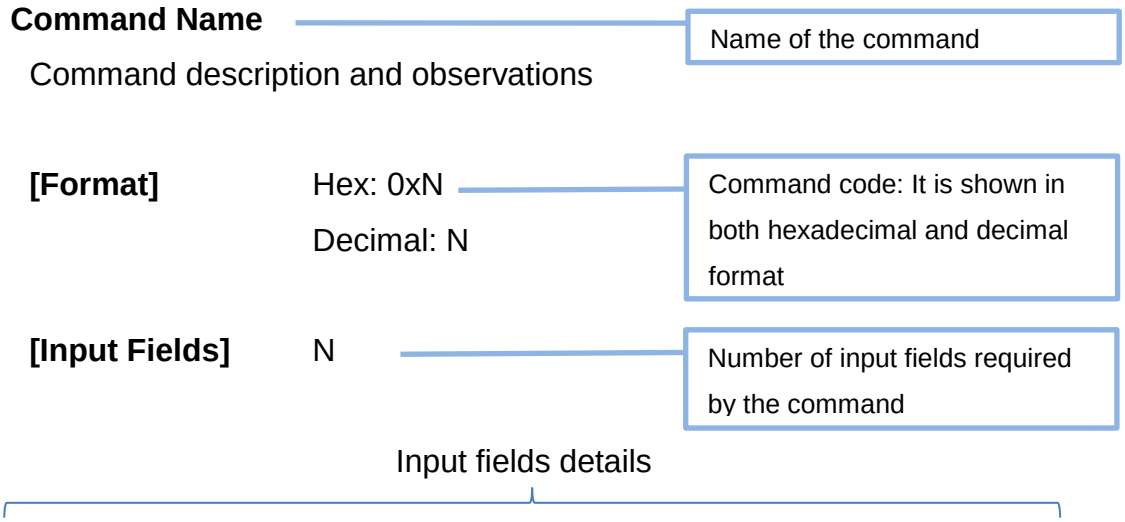
0x0503	1283	Transaction memory not connected
0x0504	1284	Read/Write error on transaction memory.
0x0505	1285	Invalid transaction memory.
0x0601	1537	Command invalid outside of fiscal period.
0x0602	1538	Fiscal period not started.
0x0603	1539	Fiscal memory full.
0x0604	1540	Fiscal memory not connected.
0x0605	1541	Invalid fiscal memory.
0x0606	1542	Command requires a Z report.
0x0607	1543	Cannot find document.
0x0608	1544	Fiscal period empty.
0x0609	1545	Requested period empty.
0x060A	1546	No more data is available.
0x060B	1547	No more Z reports can be printed this day.
0x060C	1548	Z report could not be saved.
0x0701	1793	Total must be greater than zero.
0x0801	2049	Reached comment line number limit.
0x0901	2305	Reached no sale document line number limit.
0xFFF0	65520	Checksum error in set fiscal info command
0xFFF1	65521	Missing Checksum in set fiscal info command
0xFFFF	65535	Unknown error.

Table 6: Response codes

IV. Command Detail

This chapter describes the format and data type used in each command's fields, as well as the general behavior of the commands.

All commands in this chapter are described in the using this structure:



Field	Description	Type	Length
N	Field description	Supported data type	N

[Output Fields] N — Number of output fields provided by the command.

Output fields details

Field	Description	Type*	Length
N	Field description	Supported data type	N

[Requirements]

- This section describes the conditions that must be met when using this command.

1. Configuration and diagnostic

1.1. Get State

This command returns the current state of the printer as well as the response code for the previous command. See **Fiscal printer operation** and **Response codes**.

[Format] Hex: 0x20
Decimal: 32

[Input Fields] None

[Output Fields] 3.

Field	Description	Type	Length
1	Response Code	N	5
2	State	N	2
3	Fiscal Status	H	7

[Requirements]

- This command can be used at any moment, even if the printer presents an error (State = 8).

1.2. Get Control Program Info

This command returns information in several fields describing the printer's control program (firmware).

[Format] Hex: 0x21
Decimal: 33

[Input Fields] None

[Output Fields] 10

Field	Description	Type	Length
1	Country ID	N	3
2	Firmware Version (Upper)	N	2
3	Firmware Version (Lower)	N	2
4	Printing device brand	A	20
5	Printing device model	A	20
6	Printing device ID (CW)	N	2
7	Fiscal memory capacity (in bytes)	N	6
8	Transaction memory capacity (in Kbytes)	N	6
9	Fiscal memory remaining capacity (in Z reports)	N	4
10	Transaction memory remaining capacity (in %)	A	6
11	Reserved	-	-
12	Reserved	-	-
13	Reserved	-	-
14	Reserved	-	-
15	Reserved	-	-

[Requirements]

- This command can be used at any moment.

1.3. Get Serial Info

This command returns the printer's serial numbers.

[Format] Hex: 0x22
Decimal: 34

[Input Fields] None

[Output Fields] 5

Field	Description	Type	Length
1	Fiscal serial number	A	6
2	Printing device serial number	A	16
3	Fiscal board serial number	N	16
4	Transaction memory consecutive number	N	8
5	Reserved	-	-

[Requirements]

- This command can be used at any moment.

1.4. Set date and time

This command sets the date and time of the internal RTC. The printer makes sure both date and time are valid ones and prevents the user from setting a date and time previous to the one already stored in the RTC.

[Format] Hex: 0x23

Decimal: 35

[Input Fields] 2

Field	Description	Type	Length
1	Date	D, M, LO	8
2	Time	T, M, LO	6

[Output Fields] None

[Requirements]

- This command cannot be used while a document is open.
- The new date and time must be greater than the one already stored in the printer.

1.5. Get date and time

This command returns the date and time stored in the printer's.

[Format] Hex: 0x24
Decimal: 36

[Input Fields] None

[Output Fields] 2.

Field	Description	Type	Length
1	Date	D	8
2	Time	T	6

[Requirements]

- This command can be used at any moment.

1.6. Get Fiscal Info

This command returns the printer's fiscal information.

[Format] Hex: 0x26
Decimal: 38

[Input Fields] None

[Output Fields] 15

Field	Description	Type	Length
1	CRIB number	P	9
2	Business name	P	100
3	Phone number	P	100
4	Address 1	P	100
5	Address 2	P	100
6	Tax 1	N	2,2
7	Tax 2	N	2,2
8	Tax 3	N	2,2
9	Tax 4	N	2,2
10	Tax 5	N	2,2
11	Tax 6	N	2,2
12	Tax 7	N	2,2
13	Tax 8	N	2,2
14	Tax 9	N	2,2
15	Tax 10	N	2,2

[Requirements]

- This command can be used at any moment.

1.7. Printing device's test printing

This command executes the printing device's test printing function.

[Format] Hex: 0x2F
Decimal: 47

[Input Fields] None

[Output Fields] None

[Requirements]

- The printer's state must be 0 (Standby).

2. Printer control commands

2.1. Paper Feed

This command advances one line.

[Format] Hex: 0x30
Decimal: 48

[Input Fields] None

[Output Fields] None

[Requirements]

- This command can be used on all fiscal documents, but only after all the payments and before the closure.
- This command can be used after a No Sale document is opened. See command **Open No Sale Document**.

2.2. Open Drawer

This command sends the signal required to open de cash drawer.

[Format] Hex: 0x31

Decimal: 49

[Input Fields] 1.

Field	Description	Type	Length
1	Drawer select: '0' - Drawer 1 '1' - Drawer 2	N, M, LM	1

[Output Fields] None

[Requirements]

- The correct value of Drawer select will depend on the specific drawer being used.

2.3. Get Printing Device Status

This command returns the status of the printing device. Use this command if you suspect the device presents a problem.

[Format] Hex: 0x3F
Decimal: 63

[Input Fields] None

[Output Fields] 1.

Field	Description	Type	Length
1	Printing device status	H	4

The following table describes the meaning of each bit.

Bit	Description	0	1
0	ONLINE/OFFLINE	ONLINE	OFFLINE
1	Cover	OK	OPEN
2	Temperature sensor	OK	HIGH
3	Non-recoverable error	OK	ERROR
4	Paper cutter	OK	ERROR
5	Buffer overflow	OK	ERROR
6	End of paper sensor	OK	NO PAPER
7	Out of paper sensor	OK	NO PAPER
8-15	Reserved (always 0)	-	-
16	Station TOF Detection	OK	NO PAPER
17	Station COF Detection	OK	NO PAPER
18	Station BOF Detection	OK	NO PAPER
19-31	Reserved (always 0)	-	-

Table 7: Status bits description

[Requirements]

- The least significant bit is valid for all printers. Bits 1 to 31 are only valid for thermal printers.
- This command can be used at any moment.

3. Fiscal document commands

3.1. Open

This command opens a fiscal document. This command is used to open the following documents:

- Invoice Final Consumer
- Invoice Fiscal Credit
- Credit Note for Invoice Final Consumer
- Credit Note for Invoice With Fiscal Value
- Exonerated Invoice Final Consumer
- Exonerated Invoice Fiscal Credit
- Exonerated Credit Note for Invoice Final Consumer
- Exonerated Credit Note for Invoice With Fiscal Value

[Format] Hex: 0x40
Decimal: 64

[Input Fields] 10

Field	Description	Type	Length
1	Document type: '1'- Invoice Final Consumer '2'- Invoice Fiscal Credit '3'- Credit Note for Invoice Final Consumer '4'- Credit Note for Invoice With Fiscal Value. '5'- Exonerated Invoice Final Consumer '6'- Exonerated Invoice Fiscal Credit '7'- Exonerated Credit Note for Invoice Final Consumer '8'- Exonerated Credit Note for Invoice With Fiscal Value	N, M, LM	1
2	Branch	N, LO	4
3	POS	N, LO	4

4	Customer name (1)	P, O, LM	80
5	Customer CRIB (1)	A, O, LO	9 or 10
6	NKF	N, M, LO	19
7	NKF affected (2)	N,O, LO	19
8	Reserved	-	-
9	Reserved	-	-
10	Logo	N, O, LM	3

(1) Mandatory fields on documents with fiscal credit/value.

(2) Mandatory on all credit notes.

[Output Fields] 1.

Field	Description	Type	Length
1	Document number	N	10

[Requirements]

- The printer's state must be 0 (Standby).

3.2. Item

This command is used to add or cancel items. It includes information regarding discount or surcharge to be applied to item.

- Sale Item
- Cancel Item

[Format] Hex: 0x41

Decimal: 65

[Input Fields] 12

Field	Description	Type	Length
1	Type: '00'-Sale item '01'-Cancel item	N, M, LM	2
2	Extra description 1	P, O, LM	48
3	Extra description 2	P, O, LM	48
4	Item description	P, M, LM	48
5	Product code	A, M, LM	19
6	Quantity	N, M, LM	6,3
7	Unit Price	N, M, LM	8,2
8	Unit	A,O, LM	6
9	Tax (see **Tax rates**)	N, M, LM	2
10	Discount or Surcharge '0' (or empty) – None '1'- Item discount '2'- Item surcharge	N,O, LM	1
11	Discount or Surcharge amount (1)	N, O, LM	10
12	Discount or Surcharge percent (1)	N, O, LM	3,2

(1) Discounts and surcharges can be made by amount or percentage, never both. If one of these fields is used the other must be 0 or empty.

[Output Fields] 1.

Field	Description	Type	Lengt
1	Items sold	N	10

[Requirements]

- This command can be used only after the document is open. See command **Open**.
- Discount or surcharges by amount will be made to the unit price.

3.3. Subtotal

This command is used for both subtotals and the document total:

- Subtotal
- Total

[Format] Hex: 0x42

Decimal: 66

[Input Fields] 1.

Field	Description		Type	Length
1	Type:	'0' - Subtotal '1' - Total	N, M, LM	1

[Output Fields] 23

Field	Description	Type	Length
1	Total exempt	N, LM	8,2
2	Total Sale tax 1	N, LM	8,2
3	Total Tax 1	N, LM	8,2
4	Total Sale tax 2	N, LM	8,2
5	Total Tax 2	N, LM	8,2

6	Total Sale tax 3	N, LM	8,2
7	Total Tax 3	N, LM	8,2
8	Total Sale tax 4	N, LM	8,2
9	Total Tax 4	N, LM	8,2
10	Total Sale tax 5	N, LM	8,2
11	Total Tax 5	N, LM	8,2
12	Total Sale tax 6	N, LM	8,2
13	Total Tax 6	N, LM	8,2
14	Total Sale tax 7	N, LM	8,2
15	Total Tax 7	N, LM	8,2
16	Total Sale tax 8	N, LM	8,2
17	Total Tax 8	N, LM	8,2
18	Total Sale tax 9	N, LM	8,2
19	Total Tax 9	N, LM	8,2
20	Total Sale tax 10	N, LM	8,2
21	Total Tax 10	N, LM	8,2
22	Document Total	N, LM	8,2
23	Item Quantity	N, LM	10

[Requirements]

- This command should be used after one or more items. See command **Item**.

3.4. Discount, Surcharge or Service

This command is used to apply a global discount, global surcharge or a service charge.

[Format] Hex: 0x43
Decimal: 67

[Input Fields] 3

Field	Description	Type	Length
1	Type: '0' - Discount '1' – Surcharge '2' – Service Charge	N, M, LM	1
2	Description	P, M, LM	Max(1)
3	Amount	N, M, LM	7,2
4	Percent	N, O, LM	3,2

[Output Fields] 1

Field	Description	Type	Length
1	Document subtotal	N	8,2

[Requirements]

- No further items can be sent after this command.
- This command can be used after sending a subtotal. However, it cannot be used after a Total. See command **Subtotal**.
- The user can choose to use this command either by amount or by percentage, never both.
- (1) Max is the maximum amount of character that can be printed in a single line. It can be different for each printer.

3.5. Payment

This command is used for payment, payment cancelation and donations.

[Format] Hex: 0x44

Decimal: 68

[Input Fields] 4

Field	Description	Type	Length
1	Type: '0'-Payment cancelation '1'-Payment	N, M, LM	1
2	Payment method: '00'- Cash '01'- Cheque '02'- Credit Card '03'- Debit Card '04'- Credit Note '05'- Coupon '06'- Others 1 '07'- Others 2 '08'- Others 3 '09'- Others 4 '10'- Donation	N, M, LO	2
3	Description	A, O, LM	MAX(1)
4	Amount	N, M, LM	9,2

[Output Fields] 2

Field	Description	Type	Length
1	Amount left to pay	N	9,2
2	Change	N	9,2

[Requirements]

- This command can be used after Total, see command **Subtotal**, or after another payment.
- Credit notes can be closed with no payment. If this command is used on a Credit Note, all payments will be processed as form of payment '04' – CREDIT NOTE.
- Payment must be greater than or equal to the document Total amount, otherwise the document cannot be closed, unless it's a Credit note.
- (1) Max is the maximum amount of character that can be printed in a single line. It can be different for each printer.

3.6. Close

This command closes a fiscal document and saves it in the transaction memory.

[Format] Hex: 0x45

Decimal: 69

[Input Fields] None

[Output Fields] 2

Field	Description	Type	Length
1	Document Number	N, LM	16
2	Document Total amount	N, LM	9,2

[Requirements]

- This command can be used after completing payment. See command **Payment.**

3.7. Cancel

This command cancels an opened document.

[Format] Hex: 0x46
Decimal: 70

[Input Fields] None

[Output Fields] None

[Requirements]

- This command can be used at any time as long as there is a fiscal document open.

3.8. Comment Line

This command prints a comment line in a fiscal document.

[Format] Hex: 0x4A

Decimal: 74

[Input Fields] 1

Field	Description	Type	Length
1	Comment line	RT, M, LM	Max(1)

[Output Fields] None

[Requirements]

- This command can be used on all fiscal documents, but only after all the payments and before the closure.
- (1) Max is the maximum amount of character that can be printed in a single line. It can be different for each printer.

3.9. Fiscal Document Info

This command returns all the information concerning any fiscal document that happens to be open at the moment it is used.

[Format] Hex: 0x4B
Decimal: 75

[Input Fields] None

[Output Fields] 60

Field	Description	Type	Length
1	Document type: '1'- Invoice Final Consume '2'- Invoice Fiscal Credit '3'- Credit Note for Invoice Final Consumer '4'- Credit Note for Invoice With Fiscal Value. '5'- Exonerated Invoice Final Consumer '6'- Exonerated Invoice Fiscal Credit '7'- Exonerated Credit Note for Invoice Final Consumer '8'- Exonerated Credit Note for Invoice With Fiscal Value	N, LM	1
2	Document number	N, LM	8
3	Date	D, LO	8
4	Time	T, LO	6
5	Buyers CRIB	A, LM	10
6	Branch	N, LO	4
7	POS	N, LO	4
8	NKF	N, C*, LO	20
9	NKF Affected	N,O, LO	20
10	Document Total	N, LM	9,2
11	Total Tax	N, LM	9,2
12	Total Sale exempt	N, LM	9,2
13	Exempt Item Qty.	N, LM	5

14	Total Sale tax 1	N, LM	9,2
15	Total Tax 1	N, LM	9,2
16	Tax 1 Item Qty.	N, LM	5
17	Total Sale tax 2	N, LM	9,2
18	Total Tax 2	N, LM	9,2
19	Tax 2 Item Qty.	N, LM	5
20	Total Sale tax 3	N, LM	9,2
21	Total Tax 3	N, LM	9,2
22	Tax 3 Item Qty.	N, LM	5
23	Total Sale tax 4	N, LM	9,2
24	Total Tax 4	N, LM	9,2
25	Tax 4 Item Qty.	N, LM	5
26	Total Sale tax 5	N, LM	9,2
27	Total Tax 5	N, LM	9,2
28	Tax 5 Item Qty.	N, LM	5
29	Total Sale tax 6	N, LM	9,2
30	Total Tax 6	N, LM	9,2
31	Tax 6 Item Qty.	N, LM	5
32	Total Sale tax 7	N, LM	9,2
33	Total Tax 7	N, LM	9,2
34	Tax 7 Item Qty.	N, LM	5
35	Total Sale tax 8	N, LM	9,2
36	Total Tax 8	N, LM	9,2
37	Tax 8 Item Qty.	N, LM	5
38	Total Sale tax 9	N, LM	9,2
39	Total Tax 9	N, LM	9,2
40	Tax 9 Item Qty.	N, LM	5
41	Total Sale tax 10	N, LM	9,2
42	Total Tax 10	N, LM	9,2
43	Tax 10 Item Qty.	N, LM	5
44	Total Discount	N, LM	9,2
45	Total Donation	N, LM	9,2
46	Service Charge Percent	N, LM	3,2
47	Payment method 1	N, LM	9,2
48	Payment method 2	N, LM	9,2
49	Payment method 3	N, LM	9,2
50	Payment method 4	N, LM	9,2
51	Payment method 5	N, LM	9,2
52	Payment method 6	N, LM	9,2
53	Payment method 7	N, LM	9,2
54	Payment method 8	N, LM	9,2

55	Payment method 9	N, LM	9,2
56	Payment method 10	N, LM	9,2
57	Reserved	-	-
58	Document Canceled	N, LO	1
59	Reserved	-	-
60	Service Charge Amount	N, LM	9,2

[Requirements]

- This command can only be used when a fiscal document is open.

4. No Sale document commands

These documents do not any relevant fiscal data; they can be used to display any information.

4.1. Open No Sale document

This command is used to open No Sale documents.

[Format] Hex: 0x60
Decimal: 96

[Input Fields] None

[Output Fields] None

[Requirements]

- The printer's state must be 0 (Standby).

4.1. Print No Sale Line

This command prints a line within a No Sale document.

[Format] Hex: 0x61

Decimal: 97

[Input Fields] 1

Field	Description	Type	Length
1	No Sale line	RT, M, LM	Max(1)

[Output Fields] None

[Requirements]

- This command can be used only after the No Sale document is opened. See command **Open No Sale Document**.
- (1) Max is the maximum amount of character that can be printed in a single line. It can be different for each printer.

4. 3. Close No Sale document

This command closes a No Sale document.

[Format] Hex: 0x62

Decimal: 98

[Input Fields] None

[Output Fields] 1

Field	Description	Type	Length
1	No Sale document number	N, LM	10

[Requirements]

- This command can be used only after the No Sale document is open. See command **Open No Sale Document.**

5. Reports

5.1. Z Report

This command closes the fiscal period, storing all the relevant information in the fiscal memory. The user can choose between printed and not printed.

[Format] Hex: 0x70
Decimal: 112

[Input Fields] 1.

Field	Description	Type	Length
1	Mode: '0'-Not printed '1'-Printed	N, LM	1

[Output Fields] 1

Field	Description	Type	Length
1	Z report number	N, LM	5

[Requirements]

- The fiscal period must have data, in other words, at least one fiscal document must have been generated since the last Z report.
- The printer's state must be 0 (Standby).

5.2. X Report

This command generates an X report.

[Format] Hex: 0x71
Decimal: 113

[Input Fields] None

[Output Fields] None

[Requirements]

- The fiscal period must have data, in other words, at least one fiscal document must have been generated since the last Z report.
- The printer's state must be 0 (Standby).

5.3. Fiscal Period Information

This command returns the information of the current fiscal period.

[Format] Hex: 0x72
Decimal: 114

[Input Fields] None

[Output Fields] 48

Field	Description	Type	Length
1	Current Z Report number	N	8
2	Business Date	D	8
3	Total Invoice Final Consumer	N	10,2
4	Total Tax 1 Invoice Final Consumer	N	10,2
5	Total Tax 2 Invoice Final Consumer	N	10,2
6	Total Tax 3 Invoice Final Consumer	N	10,2
7	Total Tax 4 Invoice Final Consumer	N	10,2
8	Total Tax 5 Invoice Final Consumer	N	10,2
9	Total Tax 6 Invoice Final Consumer	N	10,2
10	Total Tax 7 Invoice Final Consumer	N	10,2
11	Total Tax 8 Invoice Final Consumer	N	10,2
12	Total Tax 9 Invoice Final Consumer	N	10,2
13	Total Tax 10 Invoice Final Consumer	N	10,2
14	Total Invoice Fiscal Credit	N	10,2
15	Total Tax 1 Invoice Fiscal Credit	N	10,2
16	Total Tax 2 Invoice Fiscal Credit	N	10,2
17	Total Tax 3 Invoice Fiscal Credit	N	10,2
18	Total Tax 4 Invoice Fiscal Credit	N	10,2
19	Total Tax 5 Invoice Fiscal Credit	N	10,2
20	Total Tax 6 Invoice Fiscal Credit	N	10,2
21	Total Tax 7 Invoice Fiscal Credit	N	10,2
22	Total Tax 8 Invoice Fiscal Credit	N	10,2
23	Total Tax 9 Invoice Fiscal Credit	N	10,2
24	Total Tax 10 Invoice Fiscal Credit	N	10,2
25	Total Credit Note for Invoice Final Consumer	N	10,2

26	Total Tax 1 Credit Note for Invoice Final Consumer	N	10,2
27	Total Tax 2 Credit Note for Invoice Final Consumer	N	10,2
28	Total Tax 3 Credit Note for Invoice Final Consumer	N	10,2
29	Total Tax 4 Credit Note for Invoice Final Consumer	N	10,2
30	Total Tax 5 Credit Note for Invoice Final Consumer	N	10,2
31	Total Tax 6 Credit Note for Invoice Final Consumer	N	10,2
32	Total Tax 7 Credit Note for Invoice Final Consumer	N	10,2
33	Total Tax 8 Credit Note for Invoice Final Consumer	N	10,2
34	Total Tax 9 Credit Note for Invoice Final Consumer	N	10,2
35	Total Tax 10 Invoice Credit Note for Invoice Final	N	10,2
36	Total Credit Note for Invoice With Fiscal Value	N	10,2
37	Total Tax 1 Credit Note With Fiscal Value	N	10,2
38	Total Tax 2 Credit Note With Fiscal Value	N	10,2
39	Total Tax 3 Credit Note With Fiscal Value	N	10,2
40	Total Tax 4 Credit Note With Fiscal Value	N	10,2
41	Total Tax 5 Credit Note With Fiscal Value	N	10,2
42	Total Tax 6 Credit Note With Fiscal Value	N	10,2
43	Total Tax 7 Credit Note With Fiscal Value	N	10,2
44	Total Tax 8 Credit Note With Fiscal Value	N	10,2
45	Total Tax 9 Credit Note With Fiscal Value	N	10,2
46	Total Tax 10 Credit Note With Fiscal Value	N	10,2
47	Initial NKK	A	16
48	Canceled documents	N	10,2

[Requirements]

- The fiscal period must have data, in other words, at least one fiscal document must have been generated since the last Z report.
- The printer's state must be 0 (Standby).

5.4. Combined Z reports by date

This command starts printing a group of previously generated Z reports within a specific period of time.

[Format] Hex: 0x74
Decimal: 116

[Input Fields] 3

Field	Description	Type	Length
1	Reserved (always 0)	N, M, LM	1
2	Initial Date	D, M, LO	8
3	Final Date	D, M, LO	8

[Output Fields] 1

Field	Description	Type	Length
1	Number of Z reports in the specified range	N, LM	8

[Requirements]

- The printer's state must be 0 (Standby).

5.5. Combined Z reports by report numbers

This command starts printing a group of previously generated Z reports within a specific range of report numbers.

[Format] Hex: 0x75
Decimal: 117

[Input Fields] 2

Field	Description	Type	Length
1	Initial Z report	N, M, LM	4
2	Final Z report	N, M, LM	4

[Output Fields] 1.

Field	Description	Type	Length
1	Number of Z reports in the specified range	N, LM	8

[Requirements]

- The printer's state must be 0 (Standby).

5.6. Get next Z report within range

This commands returns and prints the information of the next Z report within the range selected on the “Combined Z reports” command. If all Z reports have been read this command returns NAK.

[Format] Hex: 0x76

Decimal: 118

[Input Fields] None

[Output Fields] 59

Field	Description	Type	Length
1	Reserved		
2	Z Report number	N	8
3	Report Date	D	8
4	Report Time	T	6
5	Business Date	D	8
6	Initial NKK	A	16
7	Final NKK	A	16
8	Total Invoice Final Consumer	N	10,2
9	Total Tax 1 Invoice Final Consumer	N	10,2
10	Total Tax 2 Invoice Final Consumer	N	10,2
11	Total Tax 3 Invoice Final Consumer	N	10,2
12	Total Tax 4 Invoice Final Consumer	N	10,2
13	Total Tax 5 Invoice Final Consumer	N	10,2
14	Total Tax 6 Invoice Final Consumer	N	10,2
15	Total Tax 7 Invoice Final Consumer	N	10,2
16	Total Tax 8 Invoice Final Consumer	N	10,2
17	Total Tax 9 Invoice Final Consumer	N	10,2
18	Total Tax 10 Invoice Final Consumer	N	10,2
19	Accumulated Amount Invoice Final Consumer	N	10,2
20	Total Invoice Fiscal Credit	N	10,2
21	Total Tax 1 Invoice Fiscal Credit	N	10,2
22	Total Tax 2 Invoice Fiscal Credit	N	10,2
23	Total Tax 3 Invoice Fiscal Credit	N	10,2
24	Total Tax 4 Invoice Fiscal Credit	N	10,2
25	Total Tax 5 Invoice Fiscal Credit	N	10,2

26	Total Tax 6 Invoice Fiscal Credit	N	10,2
27	Total Tax 7 Invoice Fiscal Credit	N	10,2
28	Total Tax 8 Invoice Fiscal Credit	N	10,2
29	Total Tax 9 Invoice Fiscal Credit	N	10,2
30	Total Tax 10 Invoice Fiscal Credit	N	10,2
31	Accumulated Amount Invoice Fiscal Credit	N	10,2
32	Total Credit Note for Invoice Final Consumer	N	10,2
33	Total Tax 1 Credit Note for Invoice Final Consumer	N	10,2
34	Total Tax 2 Credit Note for Invoice Final Consumer	N	10,2
35	Total Tax 3 Credit Note for Invoice Final Consumer	N	10,2
36	Total Tax 4 Credit Note for Invoice Final Consumer	N	10,2
37	Total Tax 5 Credit Note for Invoice Final Consumer	N	10,2
38	Total Tax 6 Credit Note for Invoice Final Consumer	N	10,2
39	Total Tax 7 Credit Note for Invoice Final Consumer	N	10,2
40	Total Tax 8 Credit Note for Invoice Final Consumer	N	10,2
41	Total Tax 9 Credit Note for Invoice Final Consumer	N	10,2
42	Total Tax 10 Invoice Credit Note for Invoice Final	N	10,2
43	Accumulated Amount Credit Note Final Consumer	N	10,2
44	Total Credit Note for Invoice With Fiscal Value	N	10,2
45	Total Tax 1 Credit Note With Fiscal Value	N	10,2
46	Total Tax 2 Credit Note With Fiscal Value	N	10,2
47	Total Tax 3 Credit Note With Fiscal Value	N	10,2
48	Total Tax 4 Credit Note With Fiscal Value	N	10,2
49	Total Tax 5 Credit Note With Fiscal Value	N	10,2
50	Total Tax 6 Credit Note With Fiscal Value	N	10,2
51	Total Tax 7 Credit Note With Fiscal Value	N	10,2
52	Total Tax 8 Credit Note With Fiscal Value	N	10,2
53	Total Tax 9 Credit Note With Fiscal Value	N	10,2
54	Total Tax 10 Credit Note With Fiscal Value	N	10,2
55	Accumulated Amount Credit Note With Fiscal Value	N	10,2
56	No Sale documents	N	10,2
57	Canceled documents	N	10,2
58	Reserved	N	10,2
59	Reserved	N	10,2

[Requirements]

- This command is only valid after another command has been used to start printing the combined Z reports. See commands **Combined Z reports by date** and **Combined Z reports by report numbers**

5.7. Combined Z reports end

This command is used to signal the end of the combined Z reports. Every time the user prints combined Z reports it should be followed by this command.

[Format] Hex: 0x77
Decimal: 119

[Input Fields] None

[Output Fields] None

[Requirements]

- This command is only valid after another command has been used to start printing the combined Z reports. See commands **Combined Z reports by date** and **Combined Z reports by report numbers**

6. Memory Audit

6.1. Read Fiscal memory by Z report numbers

This command requests fiscal memory information within a specific range of Z report numbers. If no Z reports are found in that range it will return NAK.

[Format] Hex: 0xA0
Decimal: 160

[Input Fields] 2

Field	Description	Type	Length
1	Initial Z report	N, M, LM	4
2	Final Z report	N, M, LM	4

[Output Fields] 1.

Field	Description	Type	Length
1	Number of Z reports in the specified range	N, LM	8

[Requirements]

- The printer's state must be 0 (Standby).

6.2. Read Fiscal memory by date

This command requests fiscal memory information within a specific range of dates. If no Z reports are found in that range it will return NAK.

[Format] Hex: 0xA1
Decimal: 161

[Input Fields] 2

Field	Description	Type	Length
1	Initial Date	D, M, LO	8
2	Final Date	D, M, LO	8

[Output Fields] 1

Field	Description	Type	Length
1	Number of Z reports in the specified range	N, LM	8

[Requirements]

- The printer's state must be 0 (Standby).

6.3. Read next Z report within range

This command returns the information of the next Z report within the range selected on the “Read Fiscal memory” command. If all Z reports have been read this command returns NAK.

[Format] Hex: 0xA2
Decimal: 162

[Input Fields] None

[Output Fields] 59

Field	Description	Type	Length
1	Reserved		
2	Z Report number	N	8
3	Report Date	D	8
4	Report Time	T	6
5	Business Date	D	8
6	Initial NKK	A	16
7	Final NKK	A	16
8	Total Invoice Final Consumer	N	10,2
9	Total Tax 1 Invoice Final Consumer	N	10,2
10	Total Tax 2 Invoice Final Consumer	N	10,2
11	Total Tax 3 Invoice Final Consumer	N	10,2
12	Total Tax 4 Invoice Final Consumer	N	10,2
13	Total Tax 5 Invoice Final Consumer	N	10,2
14	Total Tax 6 Invoice Final Consumer	N	10,2
15	Total Tax 7 Invoice Final Consumer	N	10,2
16	Total Tax 8 Invoice Final Consumer	N	10,2
17	Total Tax 9 Invoice Final Consumer	N	10,2
18	Total Tax 10 Invoice Final Consumer	N	10,2
19	Accumulated Amount Invoice Final Consumer	N	10,2
20	Total Invoice Fiscal Credit	N	10,2
21	Total Tax 1 Invoice Fiscal Credit	N	10,2
22	Total Tax 2 Invoice Fiscal Credit	N	10,2

23	Total Tax 3 Invoice Fiscal Credit	N	10,2
24	Total Tax 4 Invoice Fiscal Credit	N	10,2
25	Total Tax 5 Invoice Fiscal Credit	N	10,2
26	Total Tax 6 Invoice Fiscal Credit	N	10,2
27	Total Tax 7 Invoice Fiscal Credit	N	10,2
28	Total Tax 8 Invoice Fiscal Credit	N	10,2
29	Total Tax 9 Invoice Fiscal Credit	N	10,2
30	Total Tax 10 Invoice Fiscal Credit	N	10,2
31	Accumulated Amount Invoice Fiscal Credit	N	10,2
32	Total Credit Note for Invoice Final Consumer	N	10,2
33	Total Tax 1 Credit Note for Invoice Final Consumer	N	10,2
34	Total Tax 2 Credit Note for Invoice Final Consumer	N	10,2
35	Total Tax 3 Credit Note for Invoice Final Consumer	N	10,2
36	Total Tax 4 Credit Note for Invoice Final Consumer	N	10,2
37	Total Tax 5 Credit Note for Invoice Final Consumer	N	10,2
38	Total Tax 6 Credit Note for Invoice Final Consumer	N	10,2
39	Total Tax 7 Credit Note for Invoice Final Consumer	N	10,2
40	Total Tax 8 Credit Note for Invoice Final Consumer	N	10,2
41	Total Tax 9 Credit Note for Invoice Final Consumer	N	10,2
42	Total Tax 10 Invoice Credit Note for Invoice Final	N	10,2
43	Accumulated Amount Credit Note Final Consumer	N	10,2
44	Total Credit Note for Invoice With Fiscal Value	N	10,2
45	Total Tax 1 Credit Note With Fiscal Value	N	10,2
46	Total Tax 2 Credit Note With Fiscal Value	N	10,2
47	Total Tax 3 Credit Note With Fiscal Value	N	10,2
48	Total Tax 4 Credit Note With Fiscal Value	N	10,2
49	Total Tax 5 Credit Note With Fiscal Value	N	10,2
50	Total Tax 6 Credit Note With Fiscal Value	N	10,2
51	Total Tax 7 Credit Note With Fiscal Value	N	10,2
52	Total Tax 8 Credit Note With Fiscal Value	N	10,2
53	Total Tax 9 Credit Note With Fiscal Value	N	10,2
54	Total Tax 10 Credit Note With Fiscal Value	N	10,2
55	Accumulated Amount Credit Note With Fiscal Value	N	10,2
56	No Sale documents	N	10,2
57	Canceled documents	N	10,2
58	Reserved	N	10,2
59	Reserved	N	10,2

[Requirements]

- This command is only valid after another command has been used to start reading the fiscal memory. See commands **Read Fiscal memory by Z report numbers** and **Read Fiscal memory by date**.

6.4. Read Transaction memory by Z report numbers

This command requests transaction memory information within a specific range of Z report numbers. If no Z reports are found in that range it will return NAK.

[Format] Hex: 0xA3
Decimal: 163

[Input Fields] 2

Field	Description	Type	Length
1	Initial Z report	N, M, LM	4
2	Final Z report	N, M, LM	4

[Output Fields] 1.

Field	Description	Type	Length
1	Number of transactions in the specified range	N, LM	8

[Requirements]

- The printer's state must be 0 (Standby).

6.5. Read Transaction memory by date

This command requests transaction memory information within a specific range of dates. If no Z reports are found in that range it will return NAK.

[Format] Hex: 0xA4
Decimal: 164

[Input Fields] 2

Field	Description	Type	Length
1	Initial Date	D, M, LO	8
2	Final Date	D, M, LO	8

[Output Fields] 1

Field	Description	Type	Length
1	Number of transactions in the specified range	N, LM	8

[Requirements]

- The printer's state must be 0 (Standby).

6.6. Read next transaction within range

This command returns the information of the next transaction within the range selected on the “Read Transaction memory” command. If all transactions have been read this command returns NAK.

[Format] Hex: 0xA5
Decimal: 165

[Input Fields] None

[Output Fields] 60

Field	Description	Type	Lengt
1	Transaction type: ‘1’- Invoice Final Consume ‘2’- Invoice Fiscal Credit ‘3’- Credit Note for Invoice Final Consumer ‘4’- Credit Note for Invoice With Fiscal Value. ‘5’- Exonerated Invoice Final Consumer ‘6’- Exonerated Invoice Fiscal Credit ‘7’- Exonerated Credit Note for Invoice Final Consumer ‘8’- Exonerated Credit Note for Invoice With Fiscal Value **Note**: All other values are reserved. Other types of transactions record events such as reports, No Sale documents and date changes.	N, LM	1
2	Document number	N, LM	8
3	Date	D, LO	8
4	Time	T, LO	6
5	Buyers CRIB	A, LM	10
6	Branch	N, LO	4
7	POS	N, LO	4
8	NKF (2)	N, C*, LO	20

9	NKF Affected (2)	N,O, LO	20
10	Document Total	N, LM	9,2
11	Total Tax	N, LM	9,2
12	Total Sale exempt	N, LM	9,2
13	Exempt Item Qty.	N, LM	9,2
14	Total Sale tax 1	N, LM	9,2
15	Total Tax 1	N, LM	9,2
16	Tax 1 Item Qty.	N, LM	5
17	Total Sale tax 2	N, LM	9,2
18	Total Tax 2	N, LM	9,2
19	Tax 2 Item Qty.	N, LM	5
20	Total Sale tax 3	N, LM	9,2
21	Total Tax 3	N, LM	9,2
22	Tax 3 Item Qty.	N, LM	5
23	Total Sale tax 4	N, LM	9,2
24	Total Tax 4	N, LM	9,2
25	Tax 4 Item Qty.	N, LM	5
26	Total Sale tax 5	N, LM	9,2
27	Total Tax 5	N, LM	9,2
28	Tax 5 Item Qty.	N, LM	5
29	Total Sale tax 6	N, LM	9,2
30	Total Tax 6	N, LM	9,2
31	Tax 6 Item Qty.	N, LM	5
32	Total Sale tax 7	N, LM	9,2
33	Total Tax 7	N, LM	9,2
34	Tax 7 Item Qty.	N, LM	5
35	Total Sale tax 8	N, LM	9,2
36	Total Tax 8	N, LM	9,2
37	Tax 8 Item Qty.	N, LM	5
38	Total Sale tax 9	N, LM	9,2
39	Total Tax 9	N, LM	9,2
40	Tax 9 Item Qty.	N, LM	5
41	Total Sale tax 10	N, LM	9,2
42	Total Tax 10	N, LM	9,2
43	Tax 10 Item Qty.	N, LM	5
44	Total Discount	N, LM	9,2
45	Total Donation	N, LM	9,2
46	Service Charge Percent	N, LM	3,2
47	Payment method 1	N, LM	9,2
48	Payment method 2	N, LM	9,2

49	Payment method 3	N, LM	9,2
50	Payment method 4	N, LM	9,2
51	Payment method 5	N, LM	9,2
52	Payment method 6	N, LM	9,2
53	Payment method 7	N, LM	9,2
54	Payment method 8	N, LM	9,2
55	Payment method 9	N, LM	9,2
56	Payment method 10	N, LM	9,2
57	Reserved	-	-
58	Document Canceled	N, LO	1
59	Reserved	-	-
60	Service Charge Amount	N, LM	9,2

[Requirements]

- This command is only valid after another command has been used to start reading the transaction memory. See commands **Read Transaction memory by Z report numbers** and **Read Transaction memory by date**.

6.7. Read memory operation end

This command is used to signal the end of a Read memory operation. Every time the user calls a Read Memory command the operation must be ended using this command.

[Format] Hex: 0xA7
Decimal: 167

[Input Fields] None

[Output Fields] None

[Requirements]

- This command is only valid after another command has been used to start reading one of the memories. See commands **Read Fiscal memory by Z report numbers**, **Read Fiscal memory by date**, **Read Transaction memory by Z report numbers** and **Read Transaction memory by date**.

6.8. Search document/Print Copy

This command is used to search information regarding a particular document; it also provides the option to print a copy of that document. The field mode lets the user select between printing a copy or just receiving the information. If the document is not found the command returns NAK.

[Format] Hex: 0xA8
Decimal: 168

[Input Fields] 3.

Field	Description	Type	Length
1	Mode '0' - No copy '1' – Print copy	N, M, LO	1
2	Document type: '1' - Invoice Final Consume '2' - Invoice Fiscal Credit '3' - Credit Note for Invoice Final Consumer '4' - Credit Note for Invoice With Fiscal Value. '5' - Exonerated Invoice Final Consumer '6' - Exonerated Invoice Fiscal Credit '7' - Exonerated Credit Note for Invoice Final Consumer '8' - Exonerated Credit Note for Invoice With Fiscal Value '10' - No Sale document '20' - Z Report '21' - X Report	N, M, LO	2
3	Document number	N, M, LM	8

[Output Fields] 60 for fiscal documents

3 for No sale documents

59 for reports

Fiscal Documents:

Field	Description	Type	Length
1	Transaction type: '1'- Invoice Final Consume '2'- Invoice Fiscal Credit '3'- Credit Note for Invoice Final Consumer '4'- Credit Note for Invoice With Fiscal Value. '5'- Exonerated Invoice Final Consumer '6'- Exonerated Invoice Fiscal Credit '7'- Exonerated Credit Note for Invoice Final Consumer '8'- Exonerated Credit Note for Invoice With Fiscal Value	N, LM	2
2	Document number	N, LM	8
3	Date	D, LO	8
4	Time	T, LO	6
5	Buyers CRIB	A, LM	10
6	Branch	N, LO	4
7	POS	N, LO	4
8	NKF (2)	N, C*, LO	20
9	NKF Affected (2)	N,O, LO	20
10	Document Total	N, LM	9,2
11	Total Tax	N, LM	9,2
12	Total Sale exempt	N, LM	9,2
13	Exempt Item Qty.	N, LM	9,2
14	Total Sale tax 1	N, LM	9,2
15	Total Tax 1	N, LM	9,2
16	Tax 1 Item Qty.	N, LM	5
17	Total Sale tax 2	N, LM	9,2
18	Total Tax 2	N, LM	9,2
19	Tax 2 Item Qty.	N, LM	5
20	Total Sale tax 3	N, LM	9,2
21	Total Tax 3	N, LM	9,2
22	Tax 3 Item Qty.	N, LM	5

23	Total Sale tax 4	N, LM	9,2
24	Total Tax 4	N, LM	9,2
25	Tax 4 Item Qty.	N, LM	5
26	Total Sale tax 5	N, LM	9,2
27	Total Tax 5	N, LM	9,2
28	Tax 5 Item Qty.	N, LM	5
29	Total Sale tax 6	N, LM	9,2
30	Total Tax 6	N, LM	9,2
31	Tax 6 Item Qty.	N, LM	5
32	Total Sale tax 7	N, LM	9,2
33	Total Tax 7	N, LM	9,2
34	Tax 7 Item Qty.	N, LM	5
35	Total Sale tax 8	N, LM	9,2
36	Total Tax 8	N, LM	9,2
37	Tax 8 Item Qty.	N, LM	5
38	Total Sale tax 9	N, LM	9,2
39	Total Tax 9	N, LM	9,2
40	Tax 9 Item Qty.	N, LM	5
41	Total Sale tax 10	N, LM	9,2
42	Total Tax 10	N, LM	9,2
43	Tax 10 Item Qty.	N, LM	5
44	Total Discount	N, LM	9,2
45	Total Donation	N, LM	9,2
46	Service Charge Percent	N, LM	3,2
47	Payment method 1	N, LM	9,2
48	Payment method 2	N, LM	9,2
49	Payment method 3	N, LM	9,2
50	Payment method 4	N, LM	9,2
51	Payment method 5	N, LM	9,2
52	Payment method 6	N, LM	9,2
53	Payment method 7	N, LM	9,2
54	Payment method 8	N, LM	9,2
55	Payment method 9	N, LM	9,2
56	Payment method 10	N, LM	9,2
57	Reserved	-	-
58	Document Canceled	N, LO	1
59	Reserved	-	-
60	Service Charge Amount	N, LM	9,2

No sale documents:

Field	Description	Type	Length
1	Transaction type: '10'- No sale document	N, LM	2
2	Document number	N, LM	8
3	Date	D, LO	8

Reports:

Field	Description	Type	Length
1	Transaction type: '20'- Z Report '21'- X Report	N, LM	2
2	Z Report number	N	8
3	Report Date	D	8
4	Report Time	T	6
5	Business Date	D	8
6	Initial NKK	A	16
7	Final NKK	A	16
8	Total Invoice Final Consumer	N	10,2
9	Total Tax 1 Invoice Final Consumer	N	10,2
10	Total Tax 2 Invoice Final Consumer	N	10,2
11	Total Tax 3 Invoice Final Consumer	N	10,2
12	Total Tax 4 Invoice Final Consumer	N	10,2
13	Total Tax 5 Invoice Final Consumer	N	10,2
14	Total Tax 6 Invoice Final Consumer	N	10,2
15	Total Tax 7 Invoice Final Consumer	N	10,2
16	Total Tax 8 Invoice Final Consumer	N	10,2
17	Total Tax 9 Invoice Final Consumer	N	10,2
18	Total Tax 10 Invoice Final Consumer	N	10,2
19	Accumulated Amount Invoice Final Consumer	N	10,2
20	Total Invoice Fiscal Credit	N	10,2
21	Total Tax 1 Invoice Fiscal Credit	N	10,2
22	Total Tax 2 Invoice Fiscal Credit	N	10,2
23	Total Tax 3 Invoice Fiscal Credit	N	10,2
24	Total Tax 4 Invoice Fiscal Credit	N	10,2
25	Total Tax 5 Invoice Fiscal Credit	N	10,2
26	Total Tax 6 Invoice Fiscal Credit	N	10,2
27	Total Tax 7 Invoice Fiscal Credit	N	10,2
28	Total Tax 8 Invoice Fiscal Credit	N	10,2

29	Total Tax 9 Invoice Fiscal Credit	N	10,2
30	Total Tax 10 Invoice Fiscal Credit	N	10,2
31	Accumulated Amount Invoice Fiscal Credit	N	10,2
32	Total Credit Note for Invoice Final Consumer	N	10,2
33	Total Tax 1 Credit Note for Invoice Final	N	10,2
34	Total Tax 2 Credit Note for Invoice Final	N	10,2
35	Total Tax 3 Credit Note for Invoice Final	N	10,2
36	Total Tax 4 Credit Note for Invoice Final	N	10,2
37	Total Tax 5 Credit Note for Invoice Final	N	10,2
38	Total Tax 6 Credit Note for Invoice Final	N	10,2
39	Total Tax 7 Credit Note for Invoice Final	N	10,2
40	Total Tax 8 Credit Note for Invoice Final	N	10,2
41	Total Tax 9 Credit Note for Invoice Final	N	10,2
42	Total Tax 10 Invoice Credit Note for Invoice Final	N	10,2
43	Accumulated Amount Credit Note Final	N	10,2
44	Total Credit Note for Invoice With Fiscal Value	N	10,2
45	Total Tax 1 Credit Note With Fiscal Value	N	10,2
46	Total Tax 2 Credit Note With Fiscal Value	N	10,2
47	Total Tax 3 Credit Note With Fiscal Value	N	10,2
48	Total Tax 4 Credit Note With Fiscal Value	N	10,2
49	Total Tax 5 Credit Note With Fiscal Value	N	10,2
50	Total Tax 6 Credit Note With Fiscal Value	N	10,2
51	Total Tax 7 Credit Note With Fiscal Value	N	10,2
52	Total Tax 8 Credit Note With Fiscal Value	N	10,2
53	Total Tax 9 Credit Note With Fiscal Value	N	10,2
54	Total Tax 10 Credit Note With Fiscal Value	N	10,2
55	Accumulated Amount Credit Note With Fiscal	N	10,2
56	No Sale documents	N	10,2
57	Canceled documents	N	10,2
58	Reserved	N	10,2
59	Reserved	N	10,2

[Requirements]

- The printer's state must be 0 (Standby).

V. Appendix

1. Supported printers

Printing Device	Carriage Size
Thermal	48
Hybrid	48
Matrix	40
Wide carriage matrix	80

Table 8: Supported printers

The carriage size determines the maximum amount of characters that can be printed on a single line. As the table shows, this will depend on the characteristics of the printing device.

2. Tax rates

Selected tax	Description	Rate
0	Exempt	-
1	Tax 1	6%
2	Tax 2	7%
3	Tax 3	9%
4	Tax 4	Inactive
5	Tax 5	Inactive
6	Tax 6	Inactive
7	Tax 7	Inactive
8	Tax 8	Inactive
9	Tax 9	Inactive
10	Tax 10	Inactive

Table 9: Tax rates