

**DATECS**

# **USER'S MANUAL**

**ESC/POS  
Thermal Printer  
EP-2000**



We wish you a pleasant work  
with EP-2000!

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**DATECS EP-2000**

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# INTRODUCTION

## DATECS EP-2000

### /// Main Features ///

**DATECS EP-2000** is a ESC/POS thermal printer with 3-inch wide printing mechanism. It is designed for use with a broad array of terminal equipment, including data, POS and kitchen terminals. With extensive features, it can be used in a wide range of applications. Printer can quickly and easily print text and/or graphics, depending on customer's needs – barcodes, logo, etc.

#### Features:

- Compact, easy-to-use universal design;
- High speed (220 mm/s) printing;
- Low noise;
- Easy paper-loading;
- Can be used with 2 types of thermal paper – 78 mm or 58 mm wide;
- Serial RS232 and USB interfaces;
- Built -in cash drawer and external display interfaces;
- Auto cutter mechanism;
- Paper near-end sensors;
- Supports protocol for POS and BARCODE;
- Capable of printing alpha-numeric and graphical data;
- ERROR indication is available with LED or buzzer;

Parameter	Description	
<b>Printing</b>	Printing Method	Line thermal dot printing method
	Resolution	203 dpi (8 x 8 точки/мм)
	Dot pitch	Horizontal – 0.125 mm (8 dot/mm) Vertical – 0.125 mm (8 dot/mm)
	Max. Print Width	72 mm / 576 dots per line
	Number of characters per line	48 – for fonts A and C 64 – for fonts B and D
	Paper Feed System	Step
	Printing Speed (Max)	220 mm/s (1760 dots/s)
	<b>Шрифтовe</b>	Resident Fonts
Loadable		Font C: 12 x 24 dots (48 char./line); Font D: 9 x 16 dots (64 char./line);
<b>Media:</b> Roll Thermal Paper	Paper width, mm	80 or 58
	Diameter, mm	up to 102
	Paper thickness, μm	65–85
<b>Resident Barcodes</b>	1D	EAN 13 EAN 8 UPC A UPC E Codabar Code 39 Code 128
	2D	PDF417, QR code
<b>Logo Registration</b>	1 Black & White	Size: 576 x 248 dots
<b>Interfaces</b>	Serial	RS232 C – max. 115200 bps
	USB	USB v 1.1, compatible with 2.0
	LAN	100 Mbps (100 BASE-TX)

Parameter		Description
<b>Emulation</b>	ESC/POS	Continuous paper Mode
<b>Input Buffer</b>		131 072 bytes
<b>Power consumption</b>		~48 W (in normal printing)
<b>Built-in AC adapter</b>	Model: Input: Output:	Citizen 35AD1 AC 100 – 240 V, 1,3 A, 50/60 Hz DC 24 V, 1,9 A
<b>Operation switches</b>	<b>FEED</b> button Switch <b>ON/OFF</b>	Paper feed, Self test, Dump Mode Switch On/Switch OFF
<b>Power Switch</b>		<b>ON/OFF</b>
<b>Weight</b>	Without paper:	~2 kg
<b>Dimensions (mm)</b>		147 (W) X 207 (D) X 147 (H)
<b>Environment</b>	Operating temperature conditions:  Storage temperature conditions:	Temperature from 0°C to 40°C Humidity from 35% RH to 85% RH  Temperature from -20°C to 60°C Humidity from 10% RH to 90% RH
<b>Reliability</b>	Printing Head: Auto cutter life:  (at normal temperature/humidity/with recommended paper used)	150 km paper long 2 million cuts
<b>Cables</b>		Power cable RS-232 interface cable

# SAFETY INSTRUCTIONS

which must be strictly observed!



## Warning

Indicates a situation, which if was not observed and handled properly, could result in serious injury.



## Warning

- Do not use or store the printer in places where it will be exposed to: direct sunlight; chemical reactions in laboratory; airborne oil, steel particles or dust.
- Do not place any objects on the printer.  
Be careful when moving or carrying the printer. Dropping the printer may cause injury or property damage. The printer must be operated horizontally only.
- Do not drop or put foreign matter such as clips and pins into the printer. This may cause problems.
- Do not spill drinks such as tea, coffee and juice on the printer or spray insecticide on the printer. If drink or water is spilled, first be sure to turn the power off and then consult our service personnel.
- When cleaning the surface of the printer case, do not use the cloth that is soaked in thinner, trichloroethylene, benzine, ketone or similar chemicals.
- Operate the control panel properly. A careless, rough handling may cause problems or malfunction. Do not use such sharp-edged tool as a ballpoint pen for operation.
- When printer trouble occurs, do not try to disassemble it. Instead, consult our service personnel.
- Do not disassemble or modify the printer.
- Clean regularly print head paper dust and other impurities using a soft cloth soaked in ethyl alcohol.



## DATECS NOTICE

- Before use, be sure to read this manual. And keep it handy for reference when needed.
- **DATECS** reserves the right to change the content of this manual without prior notice.
- Reproduction, transfer, or transmission of the contents of this manual without prior consent is strictly prohibited.
- **DATECS** is not liable for any problems resulting from the use of optional products and consumable supplies other than the designated products contained herein.
- Do not handle, disassemble or repair the parts other than those specified in this manual.
- **DATECS** is not liable for any damage caused by user's erroneous use of the printer and inadequate environment.
- Data residing in the printer is temporary. Therefore, all data will be lost if power is lost. **DATECS** is not liable for any damage or loss of profits caused by data loss due to failures, repairs, inspections, etc.
- Please contact us if there are any mistakes or ambiguities within this manual. We would be grateful!

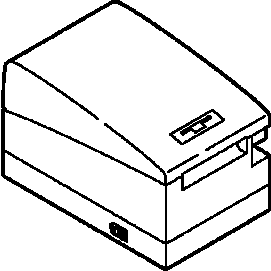
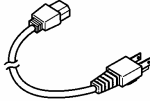





# 3

## Confirmation of Carton Contents

### DATECS EP-2000

When unpacking the printer, check carefully that the following accessories are included in the carton:

Item	Part Name
1	EP-2000 Thermal printer 
2	AC power cord 
3	RS232 Interface cable
4	1 Test Roll of thermal paper 
5	User's Manual 
6	EP-2000 Drivers 
7	Partition for 58/60 mm paper rolls



*Because of the continually evolving Drivers & SDK to support new mobile devices, Drivers & SDK are distributed online and is available for download at our website indicated below:*

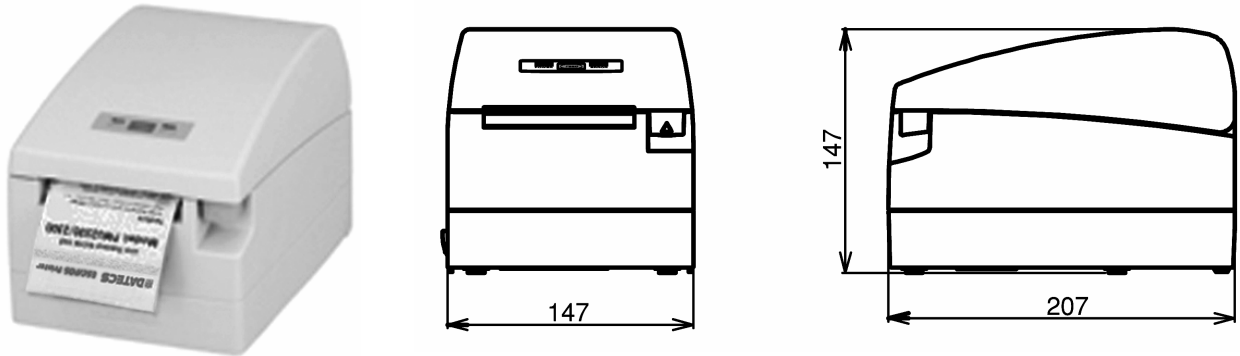
**<http://datecs.bg/support.php?cat=4&soft=1#1>**

# 4

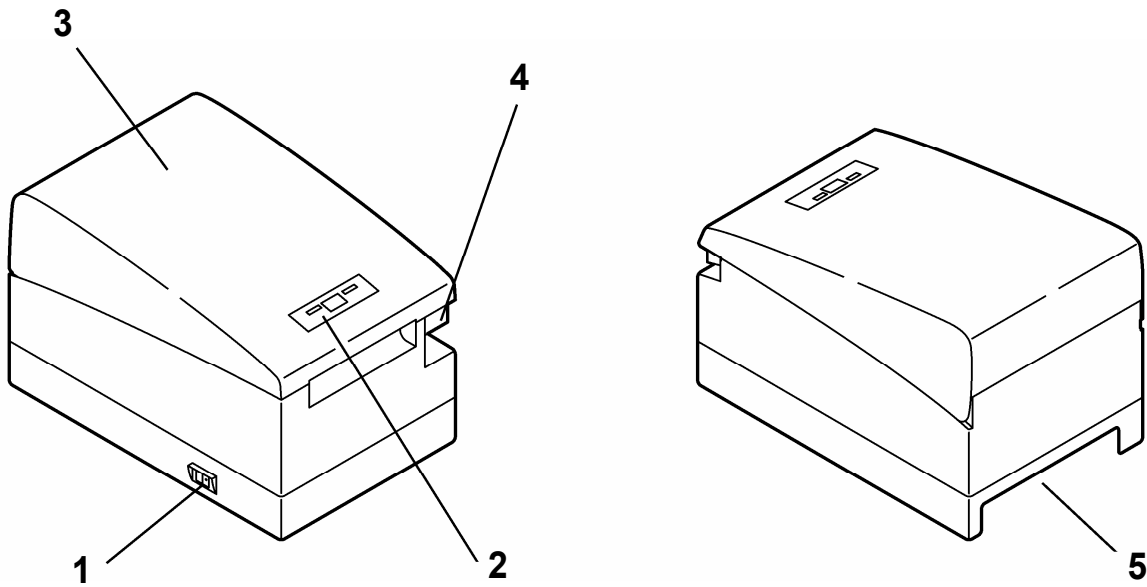
## Part Names and Functions

**DATECS EP-2000**

### External view and dimensions



### Front view / rear view



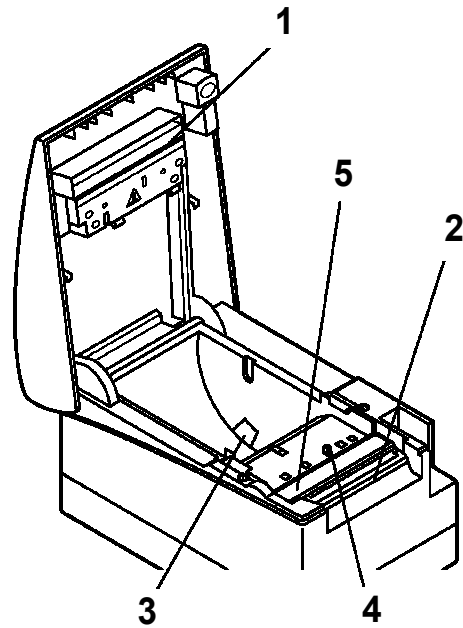
**Front view**

**Rear view**

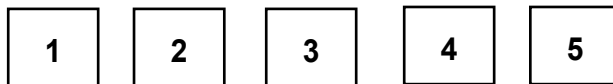
- ① **ON/OFF** power switch
- ② Operation panel
- ③ Printer cover
- ④ Cover open button
- ⑤ Connectors

#### Printer inside

- ① Printing (thermal head)
- ② Auto cutter
- ③ Paper near-end sensor
- ④ Paper end sensor
- ⑤ Paper feed roller



#### Connectors



- 1. LAN
- 2. RS232
- 3. Display
- 4. USB
- 5. Drawer

### Operation panel

① **POWER** Led

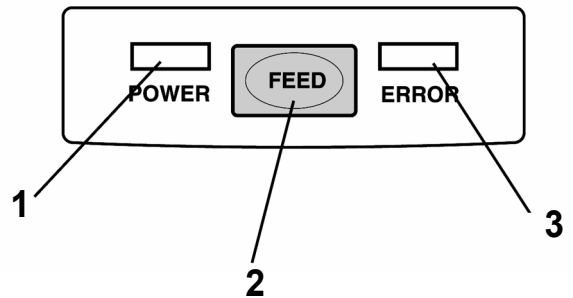
It flashes in **green** when the printer power is **on**, not lit – when the printer power is **off**. May blink in special modes or in case of error (see LEDES section).

② **FEED** button

Mainly it is used for feeding the paper. There are another functions, set by firmware, described in section **ON/OFF** switch and **FEED** button functions.

③ **ERROR** LED

Indicates paper end or other cases of error – flashes or blinks. The interval length of blinking represents the type of error.



### ON/OFF switch and FEED button functions

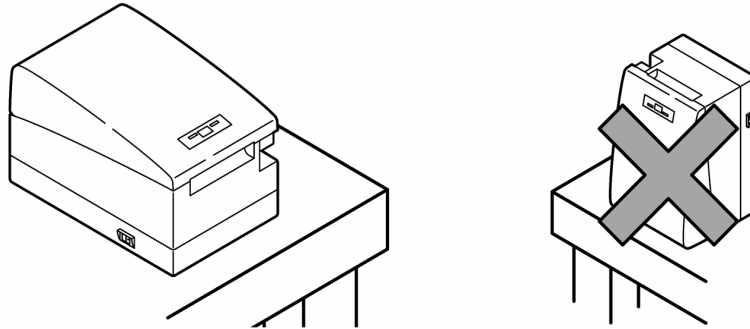
	Functions		
<b>ON/OFF</b>	1. Switch <b>ON</b> / Switch <b>OFF</b> the printer.		
<b>FEED</b>	1. Pressing <b>LF</b> button – feeding the media while the button is pressed, after releasing the button the feeding stops.		
	2. Push and Hold while Power ON – Release after the number of beeps:	After ~ 0.5 sec and after the 1-beep	<b>SHORT SELF TEST</b> print
		After ~ 2.5 sec and after the 2-beep	Hex <b>DUMP</b> mode
		After ~ 4.5 sec and after the 3-beep	<b>LONG SELF TEST</b> print
		After ~ 6.5 sec and after the 4-beep	Entering hardware setup mode (hardware menu).
		After ~ 8.5 sec and after the 5-beep 4-tone beep	Program mode – loading the firmware
3 Pressing <b>FEED</b> button in hardware setup mode confirms the changes ( <b>YES</b> ).			

LEDS

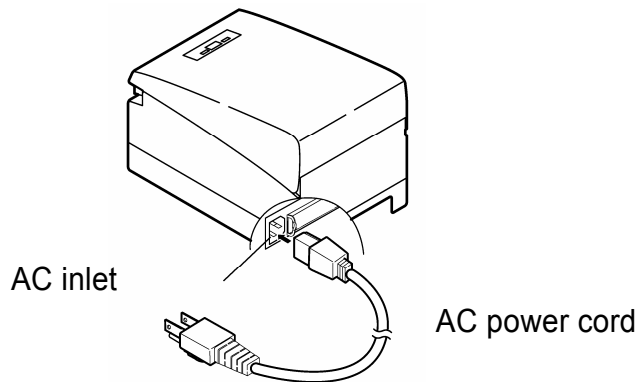
LEDS	Function
<p><b>POWER, ERROR</b></p>	<ol style="list-style-type: none"> <li>1. <b>POWER</b> flashes in <b>green</b> – the printer power is <b>on</b></li> <li>2. <b>POWER, ERROR</b> are not lit – the printer power is <b>off</b>.</li> <li>3. Changing <b>POWER – Green, ERROR – red</b> – the printer thermal head is overheat. The printer stops printing. When the printer head temperature returns to normal the <b>POWER</b> flashes <b>green</b> and the printer continues to print.</li> <li>4. When switching <b>ON</b> the printer, while the <b>FEED</b> button is pressed, <b>POWER – Green, ERROR – red</b> flashes are rotated after every beep (up to the fifth). Depending on how long the <b>FEED</b> button is pressed the printer behavior is as described above in the section <b>ON/OFF switch and FEED button functions</b>.</li> <li>5. <b>ERROR LED</b> is permanently lit <b>red</b> – end of the paper or paper out; After the loading a new paper roll and pressing <b>FEED</b> button, the <b>POWER LED</b> flashes <b>green</b> and the printer is ready to print.</li> </ol>

## Installing the printer

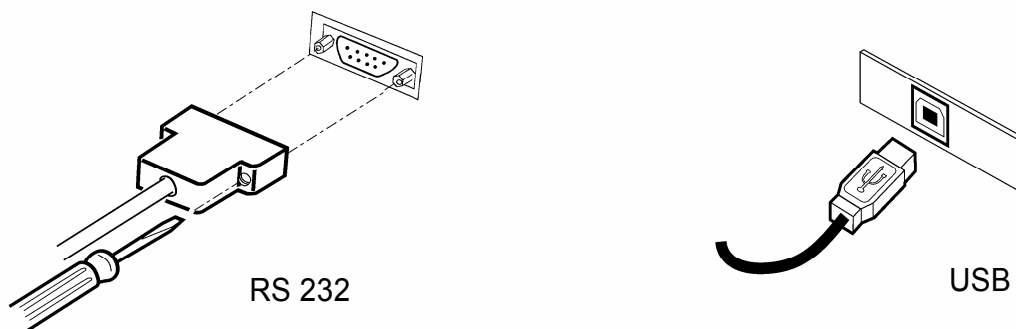
The printer must be operated horizontally only. Do not operate vertically or install on a wall..



## Connecting the AC power cord



## Interfaces



LAN – 100 Mbps (100 BASE-TX)

## Printer Configuration

EP-2000 uses nonvolatile memory for storing some of the printer default configuration. The following table shows the available options:

<b>Memory Switch</b> (see GS command)	<b>1000000111000</b>
<b>BAUD RATE</b>	<b>115200 bps</b>
<b>PRINT DENSITY</b>	<b>100%</b>
<b>CHARACTER TABLE</b>	<b>WESTERN (1252)</b>

To change the settings:

1. Switch OFF the printer.
2. Switch **ON** the printer pressing **FEED** button.  
**POWER – green, ERROR – red**, are rotated after every beep.
3. After the **4-th beep** (after about **6 сек.**) and 2 short beeps, accompanied by 2 LED blinking – **POWER – green, ERROR – red**.  
After releasing the **FEED** button in this printer state, the printer enters the hardware setup mode (hardware menu) and prints the current settings.
4. Follow the printer instruction to make the necessary changes.

Long pressing the **FEED** button (**YES**) – confirms changes.

Short pressing the **FEED** button (**No Changes**) – cancels changes.



To exit the hardware menu **switch off** the printer.



**Care must be taken when changing factory preset configuration information.**

## Memory Switches Setup

EP-2000 has 13 memory switches, which have the following action:

Flag	OFF	ON
1	Power ON/OFF sound disabled	Power ON/OFF sound enabled
2	<b>CR</b> (ASCII code 13) is not executed	<b>CR</b> is executed <b>LF</b> (ASCII code 10)
3	<b>LF</b> (ASCII code 10) is executed	<b>LF</b> (ASCII code 10) is not executed
4	<b>LF</b> immediately after <b>CR</b> as selected by flag 3	<b>LF</b> immediately after <b>CR</b> is not executed
5	Default is <b>Font A</b> (12x24)	Default is <b>Font B</b> (9x16)
6	Wide paper (78 mm)	Thinner paper (58 mm)
7	Не се използва	
8	Hardware flow control	Xon/Xoff flow control
9	USB interface disabled	USB interface enabled
10	USB is ALWAYS in DEVICE mode	
11	Normal operation mode	Protocol mode
12	Cutter enabled	Cutter disabled
13	Default select printer	Default select customer display

To change the settings:

1. Изключете принтера.
2. Switch **ON** the printer pressing **FEED** button.  
**POWER – green, ERROR – red**, are rotated after every beep.
3. After the **4-th beep** (after about **6 сек.**) and 2 short beeps, accompanied by 2 LED blinking – **POWER – green, ERROR – red**. After releasing the **FEED** button in this printer state, the printer enters the hardware setup mode (hardware menu) and prints the current settings.
4. Follow the printer instruction to make the necessary changes.

Long pressing the **FEED** button (**YES**) – confirms changes.

Short pressing the **FEED** button (**No Changes**) – cancels changes.



**Care must be taken when changing factory preset**

HARDWARE SETTINGS NOT STORED!  
STORE SETTINGS?

CHANGED SETTINGS

```

MEMORY SWITCHES: 111000001000
ENABLE SOUND: YES
EXECUTE <CR> AS <LF>: YES
DISABLE <LF> COMMAND: YES
DEFAULT SMALL FONT: YES
NARROW PAPER: NO
BLACK MARK MODE: NO
XON/XOFF: NO
ENABLE USB INTERFACE: NO
USB IN DEVICE MODE: YES
PROTOCOL MODE: NO
CUTTER OFF: NO
DEFAULT SELECT DISPLAY: NO

BAUD RATE: 115200 bps
PRINT DARKNESS: 100 %
CHARACTER TABLE: UserDefn (1252)
USB DEVICE CLASS: PrtIntrm

CHANGE USB DEVICE CLASS?
CHANGE CHARACTER TABLE?
CHANGE PRINT DARKNESS?
CHANGE BAUD RATE?
DEFAULT SELECT DISPLAY ?
CUTTER OFF ?
PROTOCOL MODE ?
USB IN DEVICE MODE ?
ENABLE USB INTERFACE ?
XON/XOFF ?
BLACK MARK MODE ?
NARROW PAPER ?
DEFAULT SMALL FONT ?
DISABLE <LF> AFTER <CR> ?
DISABLE <LF> COMMAND ?
EXECUTE <CR> AS <LF> ?
ENABLE SOUND ?

CHANGE MEMORY SWITCHES?
RESTORE FACTORY DEFAULTS?

```

READ QUESTIONS CAREFULLY!

CURRENT SETTINGS

```

MEMORY SWITCHES: 100000011000
ENABLE SOUND: YES
EXECUTE <CR> AS <LF>: NO
DISABLE <LF> COMMAND: NO
DISABLE <LF> AFTER <CR>: NO
DEFAULT SMALL FONT: NO
NARROW PAPER: NO
BLACK MARK MODE: YES
XON/XOFF: YES
ENABLE USB INTERFACE: YES
USB IN DEVICE MODE: YES
PROTOCOL MODE: NO
CUTTER OFF: NO
DEFAULT SELECT DISPLAY: NO

BAUD RATE: 115200 bps
PRINT DARKNESS: 100 %
CHARACTER TABLE: UserDefn (1252)
USB DEVICE CLASS: PrtIntrm

Press <FEED> SHORT for "NO"
Hold <FEED> LONG for "YES"
Turn off to cancel!

```

HARDWARE SETUP

WARNING! USING HARDWARE MENU

MAY CAUSE UNWANTED SETTINGS!

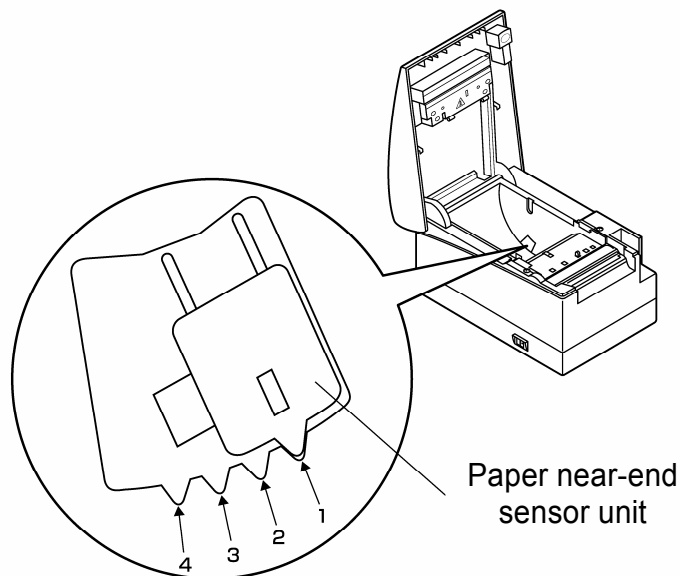
PRESS <FEED> LONG TO CONTINUE



## Adjusting the paper near-end sensor

1. Lightly push in the paper near-end sensor unit
2. Move the paper near-end sensor unit to the right and left while keeping to press it. The sensor position is as shown below depending on the diameter of the roll paper used.

Sensor position	Roll paper diameter at the detection of near-end (mm)	Outer core diameter of roll paper used
1	22	18
2	25	22
3	29	25
4	34	32



## Loading Drivers for EP-2000:

To print information from your device it is necessary to install ESC/POS drivers.

Current versions of application programs, drivers and SDK are distributed online and are available for free download at the website, indicated below:

**[www.datecs.bg](http://www.datecs.bg)**

## Loading/Replacing the paper roll

**EP-2000** uses a roll thermal paper for printing. The width and diameter of the paper roll are specified in the printer's technical specification.

**EP-2000** uses a drop-and-load design making paper loading easy and trouble free. To load paper, simply lift up the paper cover latch and drop in the new roll as shown in the steps below.

1. Lift the cover open button
2. Open the printer cover.
3. Insert a new paper roll.

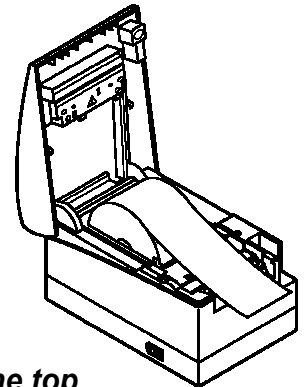


**The thermal roll must be placed as shown in the figure on the right – the thermal surface of the media must be faced to the thermal head.**

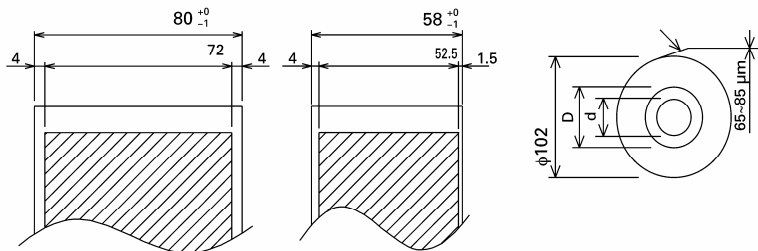
4. Close the printer cover until a click can be heard.



**Be sure to pull at least 12 mm or more of media above the top of the printer before closing.**



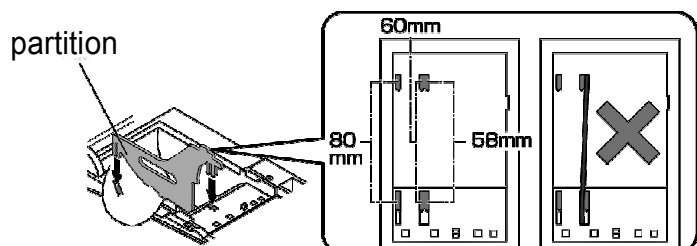
### The paper roll recommended parameters



Max. paper width, mm	80/58
Max. print width, mm	72/52.5
Max. paper roll diameter, mm	102
Paper thickness, $\mu\text{m}$	65-85
Core outer diameter (D), mm	18 (for 65-75 $\mu\text{m}$ ) / 32 (for 75-85 $\mu\text{m}$ )
Core inner diameter (d), mm	12 (for 65-75 $\mu\text{m}$ ) / 25.4 (for 75-85 $\mu\text{m}$ )

### Partition for paper roll

Put the partition for 58/60 mm paper roll correctly, as shown in the picture below.




## SELF TEST printing

### Short SELF TEST

Press and Hold the **LF** button, while Power On the printer. Release – **after ~ 0.5 sec and after the 1-beep**. The printer will print a **Short Self Test**, which contains information about printer configuration.

The **Short SELF TEST** looks as shown below:

### **DATECS** ESC/POS Printer

```
MODEL EP - 2000 Version 1.51
Interfaces: LAN/RS232/USB
RS Baud rate: 115200 bps
Flow control: Xon/Xoff
USB mode: Device
USB device class: Printer
IP Address: 192.168.0.239
Subnet Mask: 255.255.255.0
Gateway: 192.168.0.254
TCP Port: 9100
Country: USA
Code page: Western (1252)
Black mark mode: Disabled
Protocol mode: Disabled
Intensity: 100 %
Temperature: 25°C
Date & time: Not set
Voltage: 21.8 V
Switches:  ON
           123456789012 OFF
```



## Troubleshooting

If you're having printing problem refer to the table below for possible causes:

№	Problem	Possible Causes
1.	Paper feeds after issuing a print job, but no printed text visible on paper.	Thermal media is specially coated on outside of roll. Remove paper roll and reload properly.  See section "Loading Paper" for details on loading paper.
		Paper cover not installed properly. See section "Loading Paper" for details on replacing paper cover.
2.	<b>POWER – Green, ERROR – red</b> are rotated	The printer thermal head is overheat. When the printer head temperature returns to normal the <b>POWER</b> flashes <b>green</b> and the printer continues to print.
3.	Printing is light or missing only on half of the print width.	Paper cover not properly installed. See section on loading paper.  Mechanism jarred loose. Contact technical support.
4.	<b>ERROR LED</b> is permanently lit <b>red</b> .	End of the paper or paper out; After the loading a new paper roll and pressing <b>FEED</b> button, the <b>POWER LED</b> flashes <b>green</b> and the printer is ready to print.

No	Command	Description
1	<b>BEL</b>	Sounds the buzzer
2	<b>HT</b>	Horizontal Tab Command
3	<b>LF</b>	Printing a line and Paper Feeding command
4	<b>FF</b>	Printing and paper feeding to the black mark position
5	<b>CR</b>	The operation of the command depends on the state of the configuration flags 2, 3 and 4
6	<b>DC2 =</b>	DC3 (Ruled line) commands sequence start
7	<b>DC3 (</b>	Sets the ruled line ON
8	<b>DC3 +</b>	Sets the ruled line off
9	<b>DC3 -</b>	Selects ruled line A
10	<b>DC3 A</b>	Selects ruled line B
11	<b>DC3 B</b>	Clears selected ruled line buffer
12	<b>DC3 C</b>	Sets a single dot in selected ruled line buffer
13	<b>DC3 D</b>	Ruled line pattern set
14	<b>DC3 F</b>	Ruled line line set
15	<b>DC3 L</b>	Selects ruled line combine mode
16	<b>DC3 M</b>	Ruled line 1 dot line print
17	<b>DC3 P</b>	Ruled line n dots line print
18	<b>DC3 p</b>	Ruled line image write
19	<b>DC3 v</b>	Canceling print data in page mode
20	<b>CAN</b>	Printing data in page mode
21	<b>ESC FF</b>	DC3 (Ruled line) commands sequence start
22	<b>ESC RS</b>	Sounds the buzzer
23	<b>ESC SP</b>	Setting character spacing
24	<b>ESC #</b>	Setting EURO symbol position
25	<b>ESC \$</b>	Specifying the absolute horizontal position of printing
26	<b>ESC %</b>	Selecting/Canceling the printing of downloaded user character sets
27	<b>ESC &amp;</b>	Selecting user character set
28	<b>ESC !</b>	Specifying printing mode of text data
29	<b>ESC *</b>	Printing graphical data
30	<b>ESC -</b>	Selecting/Canceling underlining
31	<b>ESC .</b>	Printing self test/diagnostic information

## Списък на командите в ESC/POS режим

**DATECS EP-2000**

32	<b>ESC 2</b>	Specifying 1/6-inch line feed rate
33	<b>ESC 3</b>	Specifying line feed rate n/203 inches
34	<b>ESC &lt;</b>	Changes print direction to opposite
35	<b>ESC =</b>	Data input control
36	<b>ESC &gt;</b>	Selecting print direction
37	<b>ESC @</b>	Initializing the printer
38	<b>ESC D</b>	Setting horizontal tab position
39	<b>ESC E</b>	Specifying/Canceling highlighting
40	<b>ESC F</b>	Filling or inverting the page area in page mode
41	<b>ESC G</b>	Specifying/Canceling highlighting
42	<b>ESC I</b>	Specifying/Canceling Italic print
43	<b>ESC J</b>	Printing and Paper feed n/203 inches
44	<b>ESC L</b>	Selecting page mode
45	<b>ESC N</b>	Reading programmed serial number
46	<b>ESC R</b>	Selecting country
47	<b>ESC S</b>	Specifying speed (bps) of the serial port
48	<b>ESC T</b>	Printing short self test
49	<b>ESC U</b>	Selecting/Canceling underlined printing
50	<b>ESC V</b>	Selecting/Canceling printing 90°- right turned characters
51	<b>ESC W</b>	Defining the print area in page mode
52	<b>ESC X</b>	Specifying max printing speed
53	<b>ESC Y</b>	Selecting intensity level
54	<b>ESC Z</b>	Returning diagnostic information
55	<b>ESC \</b>	Specifying relative horizontal position
56	<b>ESC ]</b>	Loading the default settings stored in Flash memory
57	<b>ESC ^</b>	Saving current settings in Flash memory
58	<b>ESC _</b>	Loading factory settings
59	<b>ESC `</b>	Reading the Battery Voltage and Thermal head temperature
60	<b>ESC a</b>	Aligning the characters
61	<b>ESC b</b>	Increasing text line height
62	<b>ESC c5</b>	Enabling/Disabling the functioning of the button LF
63	<b>ESC d</b>	Printing and feeding paper by n- lines

64	ESC f	Select symbol '0' printing style
65	ESC i	Feeding paper backwards
66	ESC o	Temporarily feeding paper forward
67	ESC p	Generating a drawer pulse
68	ESC r	Full command for sounding buzzer
69	ESC s	Reading print settings
70	ESC u	Selecting code table
71	ESC v	Transmitting the printer status
72	ESC y LAN	Programming setting LAN
73	ESC {	Enabling/Canceling printing of 180° turned characters
74	GS FF	Printing in page mode and returning to standard mode
75	GS \$	Specifying the absolute vertical position in page mode
76	GS )	Setting printer flags (memory switches)
77	GS *	Defining a Downloaded Bit Image (logo)
78	GS /	Printing a Downloaded Bit Image
79	GS :	Starting/ending macro definitions
80	GS B	Enabling/Disabling inverse printing (white on black)
81	GS C	Read the Real Time Clock
82	GS H	Selecting Printing position of HRI Code
83	GS L	Setting the left margin
84	GS Q	Printing 2-D barcodes
85	GS R	Filling or inverting a rectangle in page mode
86	GS S	Selecting 2-D barcode cell size
87	GS T	Selecting the print direction in page mode
88	GS U	Selecting standard mode
89	GS V	Paper cutting
90	GS W	Setting the print area width
91	GS X	Drawing a rectangular box with selected thickness in page mode
92	GS Z	Printing the non blank page area only in page mode
93	GS \	Specifying the relative vertical position in page mode
94	GS ^	Executing macro
95	GS c	Setting the Real Time Clock
96	GS f	Setting the font of HRI characters of the barcode
97	GS h	Setting the height of the barcode



98	GS k	Printing a barcode
99	GS p	Settings for 2D barcode PDF417
100	GS q	Selecting the height of the module of 2D barcode PDF417
101	GS w	Selecting the horizontal size (Scale factor) of the barcode
102	GS x	Direct text print in page mode

**Asian Languages Support**

103	FS !	Specifying printing mode of two-byte text data
104	FS &	Selecting two-byte text mode (JIS or GB2312)
105	FS -	Selecting/Canceling underline mode for two-byte text mode
106	FS .	Canceling two-byte text mode
107	FS 2	Defining one custom Kanji character
108	FS C	Selecting Shift-JIS mode (Japanese version only)
109	FS S	Specifying character spacing for two-byte text mode
110	FS W	Selecting double size characters for two-byte text mode



\* For details about commands for ESC/POS mode see Programmer's User.