



Barcode/Label printer

**e4** The Economy Class.

## Operator's Manual for the following products

Part No.	Description	Type
5410006	Transfer printer	e4/200
5410007	Transfer printer	e4/300

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## Contents

<b>1</b>	<b>Introduction .....</b>	<b>3</b>
1.1	Instructions.....	3
1.3	Intended Use of the Printer .....	3
1.4	Safety Instructions.....	3
1.5	Disposal in an eco-friendly Manner.....	3
<b>2</b>	<b>Product Description.....</b>	<b>4</b>
2.1	Technical Data.....	4
2.2	Device Overview .....	5
2.3	Accessories.....	5
<b>3</b>	<b>Getting Started .....</b>	<b>6</b>
3.1	Connecting the Printer .....	6
3.2	Installing the Printer Driver.....	6
3.3	The Label designing Software eLabel.....	7
3.4	Loading Labels.....	7
3.5	Positioning the Media Sensor .....	8
3.6	Loading the Transfer Ribbon.....	9
<b>4</b>	<b>Operation .....</b>	<b>10</b>
4.1	Operator Controls.....	10
4.2	Operating Functions.....	11
<b>5</b>	<b>Cleaning .....</b>	<b>12</b>
5.1	Cleaning the Printhead.....	12
5.2	Cleaning the Media Feed Roller.....	12
<b>6</b>	<b>Troubleshooting.....</b>	<b>13</b>
6.1	Error Messages.....	13
6.2	Miscellaneous Faults.....	13
<b>7</b>	<b>Interfaces .....</b>	<b>14</b>
7.1	RS 232 Serial .....	14
7.2	Parallel (Centronics) .....	14
7.3	Ethernet Interface.....	15
7.4	ASCII Table .....	17
<b>8</b>	<b>Index.....</b>	<b>18</b>

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## 1 Introduction

### 1.1 Instructions

Important information and instructions in this documentation are designated as follows:

<b>Danger</b>		<b>Danger!</b> Draws your attention to an exceptionally grave, impending danger to your health or life.
<b>Warning</b>		<b>Warning!</b> Indicates a hazardous situation that could lead to injuries or material damage.
<b>Notice</b>		Draws attention to possible dangers, material damage or loss of quality.
<b>Information</b>		Gives you tips. They make a working sequence easier or draw attention to important working processes.
<b>Environment</b>		Gives you tips on protecting the environment.
<b>Handling instruction</b>		Prompts you to do something.
<b>Documents</b>	<i>italic</i>	Reference to another document.
<b>Reference</b>		To section, position, illustration number or document.
<b>Option</b>	*	Accessories, peripheral equipment, special fittings.

### 1.3 Intended Use of the Printer

- The device is manufactured in accordance with the current technological status and the recognized safety rules. However, danger to the life and limb of the user or third parties and/or damage to the device and other tangible assets can arise during use.
- The device may only be used for its intended purpose and if it is in perfect working order, and it must be used with regard to safety and dangers as stated in the operating manual.
- The device printer is intended exclusively for printing suitable materials that have been approved by the manufacturer. Any other use or use going beyond this shall be regarded as improper use. The manufacturer/supplier shall not be liable for damage resulting from unauthorized use; the user shall bear the risk alone.
- Usage for the intended purpose also includes complying with the operating manual, including the manufacturer's maintenance recommendations and specifications.



The complete documentation is included in the scope of delivery on CD ROM, and can also currently be found in the Internet.

### 1.4 Safety Instructions

- The device is configured for voltages of 100 to 240 V AC. It only has to be plugged into a grounded socket.
- Only connect the device to other devices which have a protective low voltage.
- Switch off all affected devices (computer, printer, accessories) before connecting or disconnecting.
- The device may only be used in a dry environment, do not expose it to moisture (sprays of water, mists, etc.).
- If the device is operated with the cover open, ensure that people's clothing, hair, jewelry etc. do not come into contact with the exposed rotating parts.
- The device or parts of it can become hot while printing. Do not touch during operation, and allow to cool down before changing material and before disassembly.
- Perform only those actions described in this operating manual. Work going beyond this may only be performed by trained personnel or service technicians.
- Unauthorized interference with electronic modules or their software can cause malfunctions.
- Other unauthorized work on or modifications to the device can also endanger operational safety.
- Always have service work done in a qualified workshop, where the personnel have the technical knowledge and tools required to do the necessary work.
- There are various warning stickers on the device. They draw your attention to dangers. Warning stickers must therefore not be removed, as then you and other people cannot be aware of dangers and may be injured.



**Danger!**  
**Danger to life and limb from power supply.**  
► Do not open the device casing.

### 1.5 Disposal in an eco-friendly Manner



Obsolete devices contain valuable recyclable materials that should be sent for recycling.

- Send to suitable collection points, separately from residual waste.

The modular construction of the printer enables it to be easily disassembled into its component parts.

- Send the parts for recycling.

The electronic circuit board of the device is equipped with a lithium battery.

- Take old batteries to collection boxes in shops or public waste disposal centers.

## 2 Product Description

### 2.1 Technical Data

■ Standard □ Option

1. Printhead		e4	
Printing method		Thermal/Thermal transfer	
Printhead resolution dpi		203	300
Print speed up to mm/s		100	75
Print width up to mm		108	106
2. Labels			
Material	Labels, continuous material on rolls or leporello, thermal and standard paper, cardboard, foils: PE, PP, PVC, PA, PI		
Material thickness mm / weight g/m²		0.10 - 0.25 / 60 - 160	
Media roll	Total diameter up to mm	152	
	Core diameter mm	25 / 76	
	Winding direction	outside	
Material width mm		25 - 110	
Label width mm		25 - 108	25 - 106
Label height mm		10 - 1016	
3. Ribbon			
Ink		inside	
Roll diameter up to mm		76	
Core diameter mm		25	
Running length variable up to m		360	
Width up to mm		110	
5. Dimensions			
Height x Depth x Width mm		200 x 329 x 256	
Weight kg		3.5	
6. Label sensor			
Reflective		■	
7. Electronics			
Processor clock rate		50 MHz	
RAM		4 MB	
ROM Flash		2 MB	
8. Operation panel			
Keys	PAUSE, FEED, CANCEL		
LEDs	READY, MEDIA, RIBBON		
9. Interfaces			
Parallel Centronics / USB			■ / ■
Serial RS 232 C / Ethernet 10/100 base			■ / □
13. Fonts			
Font types	Version 200 dpi: 8 x 12 dots up to 32 x 48 dots		
	Version 300 dpi: 12 x 20 dots up to 48 x 80 dots		
14. Graphics			
Graphic elements		Line, Box, diagonal	
Graphic formats		BMP, GIF, JPG*	
15. Codes			
Linear barcodes	Code 39*, Code 93*, Interleaved 2/5*, Code 128/Subset A, B, C*, Codabar*, UPC A, E, and 5 add on*, EAN-13/8/128*, UCC-128, Postnet, Plessy, HIBC, Telepen, FIM		
2D-Codes	MaxiCode, PDF417*, Datamatrix		
* available in eLabel			
All codes variable in height, module width and ratio. Orientation 0°, 90°, 180°, 270°. Optionally with check digit, printed characters and Start/Stop code, depending on code type.			
17. Operation data			
Power supply, external device		100~240 V, 50/60 Hz	
Operation temperature		10° C - 40° C	
Humidity not condensing		5% - 85%	
Safety regulations		CE, CCC	

#### eLabel free full version



The e4 comes with the free PC label design software "eLabel". This full version allows the professional design of labels, incl. serial numbers, barcodes, time and date specification, fix and variable fields, database connection and much more.

eLabel	2.0
Label samples	■
On-line documentation with tutorials	■
Multi-level Undo	■
Number of levels	20
Hidden (unprintable) objects	■
Import of graphic formats (BMP, GIF, JPG)	■
True-Type fonts	■
Graphic barcodes with specific fonts	■
Number	13
Object positioning	■
Inverse	■
Four print directions	■
Serial numbers	■
Label preview	■
Graphics preview	■
Languages: D, GB, RUS, F	■
Data base	
Base ASCII	■
Data base manager	■
Variables	
Flexible date and time stamping	■
Input of programming commands	■
User input field	
Definition of input format	■
Minimum input length	■
Multiline input	■
Field blocking	■
Adjustment of fields	■
Field highlighting	■
Automatic input demand	■

#### Windows driver 2000, 2003, XP

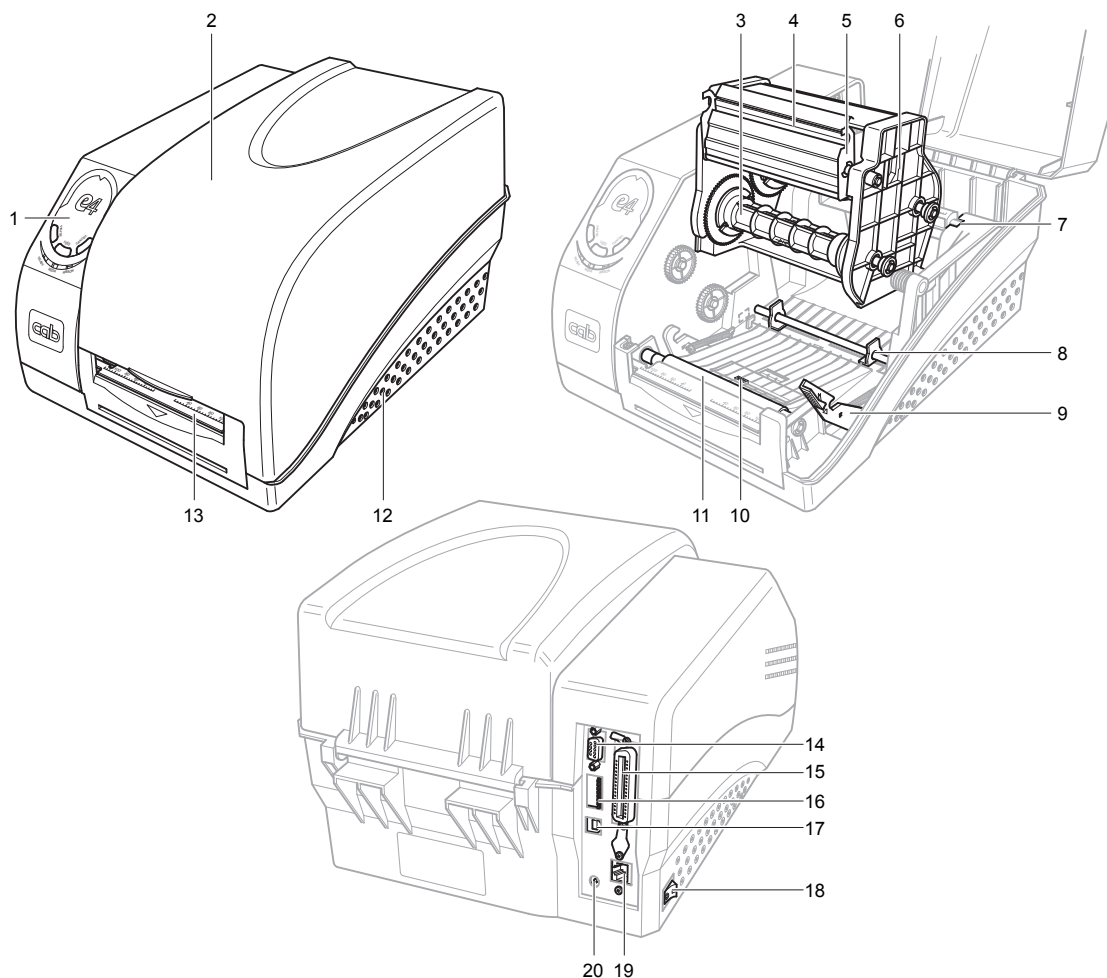
With every Windows program like MS Word, MS Excel or others you also can print your labels directly.

#### cablabel R2 Lite, Pro

Use the multifunctional possibilities of cablabel R2. Powerful functions allow you to design and print complex labels. Start with the free of charge Lite version. Challenging applications can be handled with cablabel R2 Pro. For details go to: [www.cabgmbh.com](http://www.cabgmbh.com).

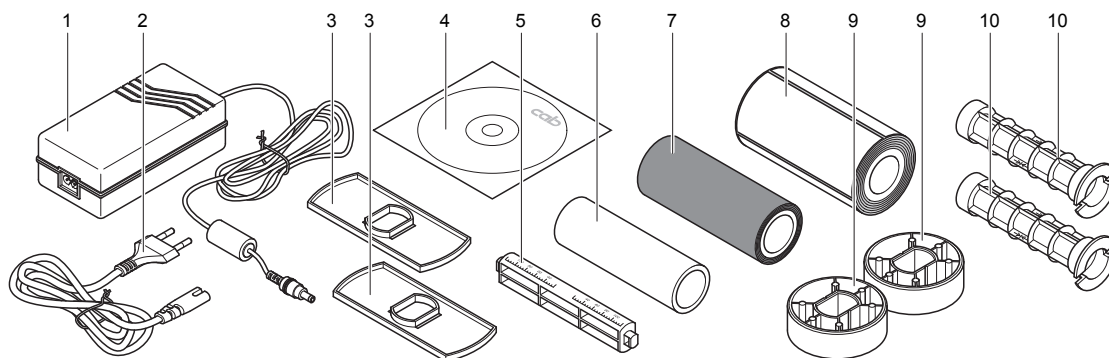
## 2 Product Description

### 2.2 Device Overview



- |                         |  |                      |                       |
|-------------------------|--|----------------------|-----------------------|
| 1 Control panel         | 6 Print module                         | 11 Media feed roller | 16 DIP switches       |
| 2 Cover                 | 7 Media holder                         | 12 Bottom case       | 17 USB port           |
| 3 Ribbon unwinding unit | 8 Media guide                          | 13 Media exit path   | 18 Main switch        |
| 4 Printhead             | 9 Unlocking button of the print module | 14 Serial port       | 19 Ethernet port      |
| 5 Printhead holder      | 10 Media sensor                        | 15 Parallel port     | 20 Power input socket |

### 2.3 Accessories



- |                       |                        |                         |                                  |
|-----------------------|------------------------|-------------------------|----------------------------------|
| 1 Power unit          | 4 CD ROM with software | 7 Ribbon roll           | 10 2 Ribbon spindles             |
| 2 Power cable         | 5 Media spindle        | 8 Media roll            | 11 Operator's manual (not shown) |
| 3 2 Media roll guides | 6 Empty ribbon core    | 9 2 Media core adapters |                                  |



When unpacking the device, check that the delivery is complete and that there has been no transport damage.



### **Warning!**

**Risk of material damage.**

**Please ensure the following before starting up the printer:**

1. Set up the printer in a place where there is adequate space available for inserting the transfer ribbon and media.
2. Ensure that there is adequate ventilation for the device, and keep it out of direct sunlight.
3. Do not operate the printer in a wet environment or in the vicinity of corrosive chemicals.
4. Do not exceed the maximum length of cable (according to interface), and ensure that all plugs are easily accessible.

## 3.1 Connecting the Printer



### **Warning!**

**Risk of material damage.**

**The printer must be switched off, power switch in position 0.**

### Power supply

1. Plug the power adapter into the power unit.
2. Plug the output plug of the power adapter into the power input socket on the side of the printer.
3. Plug the power cable into the power socket.

### Interfaces

The printer and PC can be connected by either a serial or parallel cable, a USB cable or an Ethernet link. If you have any queries, please contact a specialist dealer.

1. The printer recognizes the selected interface automatically.
2. The default settings of the interface can be seen on the self-test printout.
3. The cable configurations for the serial (RS 232 C) and parallel (Centronics) interfaces are listed in the appendix.
4. To avoid transmission problems, ensure that the length of the interface cable does not exceed the specifications for the relevant interface.

## 3.2 Installing the Printer Driver

The printer driver supports the Windows operating systems 2000/2003/XP.

It is on the supplied CD, or can be downloaded under <http://www.cabgmbh.com>.



An already installed driver must be uninstalled before a newer driver version can be installed.  
Switch the printer on before starting the installation.

1. Select "Start" -> "Settings" -> "Printer and Faxes" -> "Add a printer".
2. Select "Network Printer" or "Local Printer".
3. Select the corresponding connection, e.g. LPT1 (parallel port).
4. Select "Have Disk..." and go to the directory containing the printer driver.
5. Select the printer model, e.g. cab e4/200, and follow the instructions.



## 3 Getting Started

### 3.3 The Label designing Software eLabel

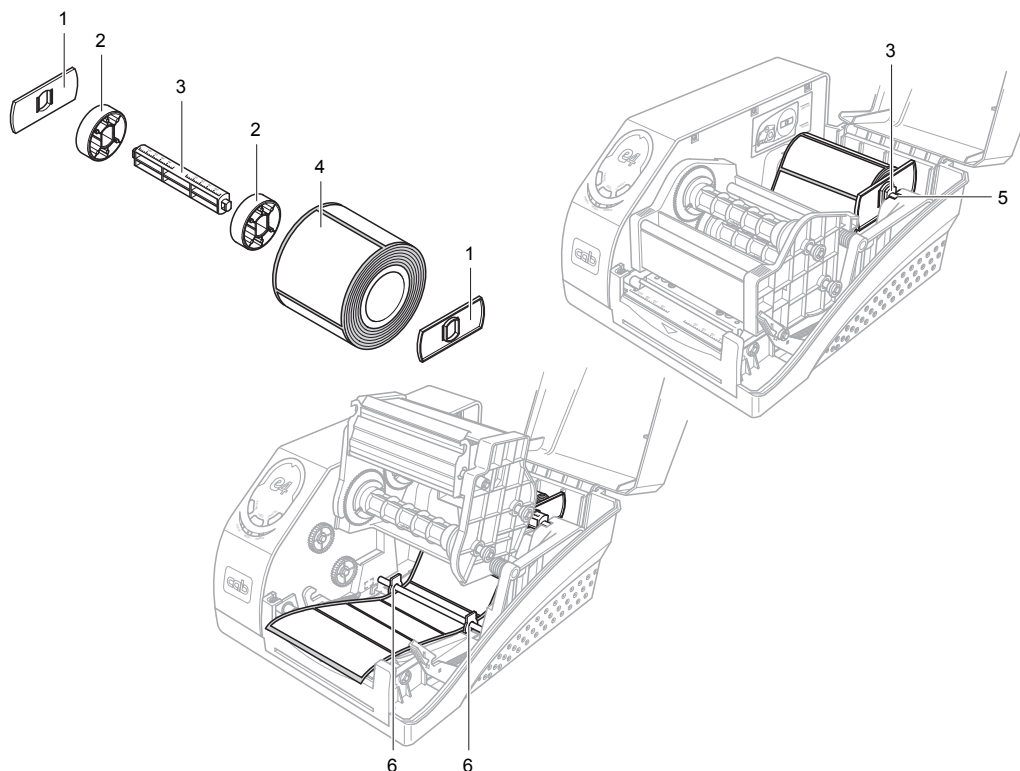
Each e4 printer is supplied with eLabel, a high-performance label designing software application.



The printer driver has to be installed before eLabel can be installed.

The software is on the supplied CD ROM. Updates can be downloaded from <http://www.cabgmbh.com> as and when required. Start the installation via the user interface on the CD, and follow the instructions of the wizard.

### 3.4 Loading Labels



1 Media roll guides  
2 Media core adapters

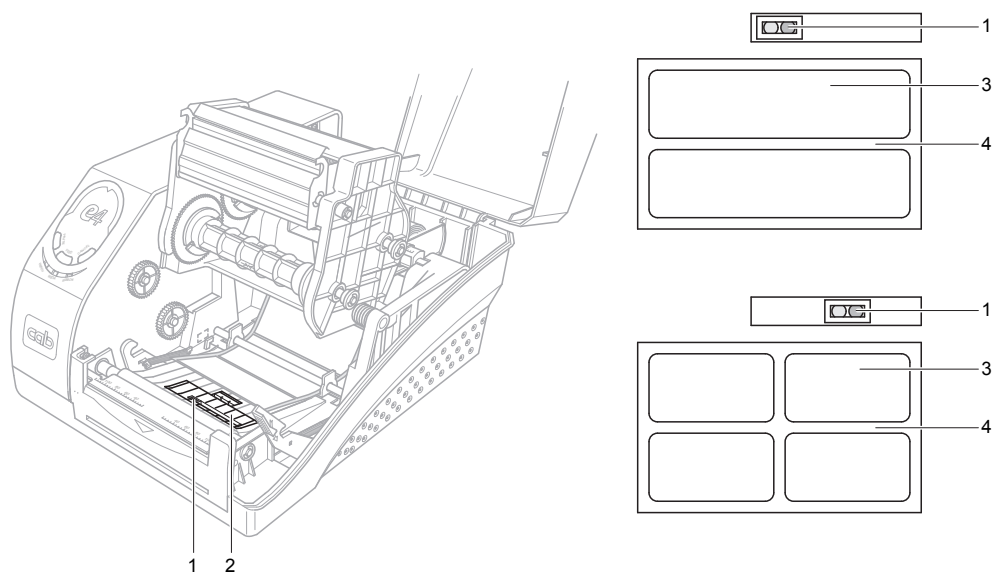
3 Media spindle  
4 Media roll

5 Media holder  
6 Media guides

1. Open the cover.
2. For media rolls with a core diameter between 40 and 75 mm, slide the two core adapters (2) onto the media spindle (3).
3. Place the media roll (4) on the media spindle (3) with the core adapters.
4. Slide the media roll guides (1) onto the spindle, with their smooth sides facing the media, until they touch the edges of the roll.
5. Insert the spindle with media and guides into the media holder (5), make sure it locks in properly.
6. Position the media roll in the center of the spindle with the aid of the scale.
7. Release the printhead module and swing it up.
8. Feed the media under the axle of the media guides (6) and pull it forwards.
9. Slide the media guides (6) up to the edges of the media.
10. Set the position of the media sensor to match the width of the media (see Positioning the Media Sensor).
11. Close the printhead module by pressing it down until it locks in.
12. Close the cover, and calibrate the media sensor.

### 3 Getting Started

#### 3.5 Positioning the Media Sensor



1 Media sensor  
2 Media sensor cover

3 Media  
4 Spaces between labels

1. Release the printhead module and swing it up.
2. Take the cover (2) off the media sensor (1).
3. Position the media sensor (1) so that the relevant labels pass centrally over it, and the sensor can alternately detect labels and the spaces between them. See the two examples on the right of the illustration.
4. Replace the cover on the media sensor.
5. Close the printhead module by pressing it down until it locks in.



## 3 Getting Started

### 3.6 Loading the Transfer Ribbon

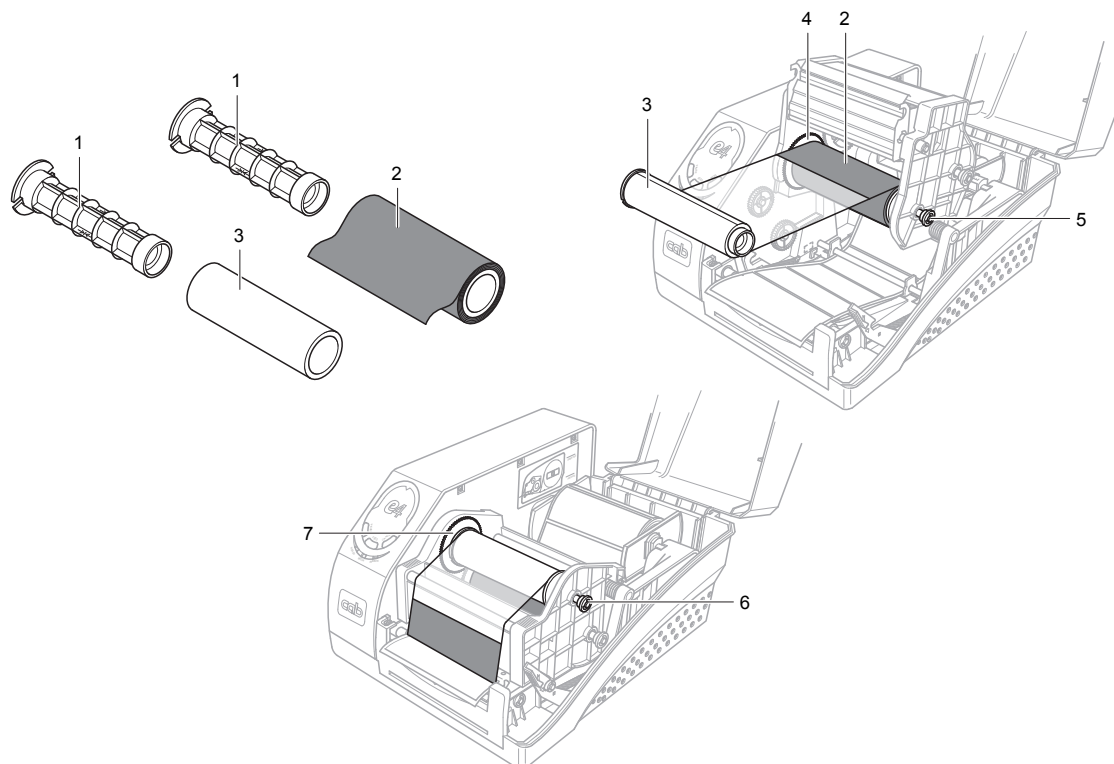


#### Warning!

Risk of material damage.

When inserting the transfer ribbon ensure that the coated side faces the labels, as otherwise the printhead can become soiled.

Ensure that the media is winding in the same direction as shown in the illustration.



- 1 Ribbon spindle
- 2 Ribbon roll
- 3 Empty transfer ribbon core
- 4 Ribbon supply holder

- 5 Ribbon loading knob
- 6 Ribbon rewind knob
- 7 Ribbon rewind holder

1. Open the cover.
2. Release the printhead module and swing it up.
3. Slide the ribbon roll (2) onto one of the ribbon spindles (1), and put the empty core (3) on the other spindle (1). If the roll is less than 110 mm wide, position the roll and core in the middle of the spindle.
4. Pull out the knob (5), insert the ribbon roll (2) together with the spindle into the supply holder (4), allow the knob to slot in again.



When inserting the two spindles (1) ensure that the wider side is placed in the respective holder (4, 7), and slots in.

5. Attach the end of the ribbon to the empty core (3) with adhesive tape.
6. Lead the ribbon round the printhead module as shown in the illustration.
7. Pull out the knob (6), insert the core and spindle into the rewind holder (7), allow the knob to slot in again.
8. Turn knob (6) clockwise to take up the slack in the ribbon.
9. Close the printhead module by pressing it down until it locks in.
10. Close the cover.

## 4 Operation

### 4.1 Operator Controls

#### Power Switch

The power switch is located on the left-hand side of the printer.

Position 0: Off

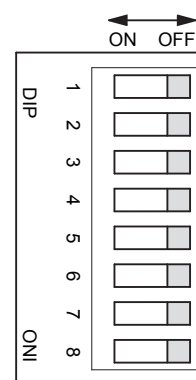
Position I: On

#### DIP Switches



Switch off the printer before setting the DIP switches.

DIP switch	Functions	Remarks
1	ON: Direct thermal print OFF: Thermal transfer print	Print settings Default: OFF
2	ON: Enables back feed (tear-off mode) OFF: Disables back feed	Back feed (tear-off mode) Default: OFF
3	Reserved	Always OFF
4	Reserved	Always OFF
5	Reserved	Always OFF
6	Reserved	Always OFF
7, 8	8   7 0   0 – 9600,n,8,1 0   1 – 19200,n,8,1 1   0 – 38400,n,8,1 1   1 – 57600,n,8,1	Serial interface RS 232 Baud rate setting 0: OFF, 1: ON Default: 00



#### Control Panel

The operating panel consists of three LEDs and three multifunction buttons.

##### LEDs

They indicate the status of the printer.

READY	Lights	Standard printer status
MEDIA	Lights	Standard printer status
	Flashes simultaneously with READY	Media roll has run out
	Flashes	PAUSE status
RIBBON	Lights	Standard printer status
	Off	Direct thermal printing (no transfer ribbon inserted)
	Flashes simultaneously with READY	Ribbon roll has run out

##### Multifunction buttons

The printer is either in standard or system mode.

	Normal mode	System mode
PAUSE	Pause print job Continue print job after pause	Self-test
FEED	Feed one label	Calibrating the media sensor
CANCEL	Cancel print job Continue printing after rectifying fault	Reset

## 4 Operation

### 4.2 Operating Functions

#### Normal mode

FEED	A label is fed forward.
PAUSE	The current print job has paused, MEDIA flashing. Paused print job resumed.
CANCEL	The current print job has been stopped. Continue printing after rectifying fault.

#### System mode



In system mode, the printer cannot accept any commands from the PC.

#### Activate system mode:

Press the CANCEL button and keep it pressed for four seconds. The three flashing LEDs indicate that the printer is in system mode.

#### Exit system mode:

System mode is exited automatically if no command is input within four seconds of starting.

#### Self-test

1. Press the PAUSE button in system mode.
2. The three LEDs flash.  
The device prints a configuration report.
3. The three LEDs are continually lit.  
The printer is in standard status again.
4. The following information is printed out:
  - List of fonts
  - Hardware configuration and status
  - DIP switch settings
  - Label parameters
  - Firmware version

#### Calibrating the media sensor

The media sensor must be recalibrated when a new type of media is loaded.

1. Press the FEED button in system mode.
2. The three LEDs flash.  
The printer advances the media about 200 mm.
3. The three LEDs are continually lit.  
The printer is in standard status again.

#### Reset

1. Press the CANCEL button in system mode.
2. The following parameters are reset to the factory settings:
  - Label parameters
  - Heat level
  - Print speed
  - Other special settings
3. The three LEDs light up.  
The printer is in standard status.



The printed label counter cannot be reset.

**Danger!****Danger from electric shock!****Switch off the printer before starting any maintenance work.****Warning!****Risk of damage!****Only use cleansers approved by the manufacturer. The manufacturer shall not be liable for damage caused by the use of other cleansers.**

- Remove dust and paper fluff from the interior with a soft brush or vacuum cleaner.
- The cover of the printer can be cleaned with a standard cleanser.

## 5.1 Cleaning the Printhead

The printhead is easily damaged due to its precision configuration. Dirt may collect on the printhead during printing, which affects the printed image and damages the printhead.

Therefore use high-quality consumables and clean the printhead regularly (after every roll of ribbon or every three rolls of media).

**Warning!****Printhead damage!****Do not use sharp objects for cleaning the printhead.****Warning!****Danger from hot printhead!****The printhead can become very hot during operation, allow it to cool before starting maintenance work.**

1. Release the printhead module and swing it up.
2. Remove ribbon (if used).
3. Clean the printhead with a cotton swab moistened with alcohol.

## 5.2 Cleaning the Media Feed Roller

Remove debris and dirt from the media feed roller after each roll of media.

1. Release the printhead module and swing it up.
2. Turn the platen roller and remove the dirt with a cotton swab moistened with alcohol.

## 6 Troubleshooting

### 6.1 Error Messages

A fault is indicated by one or two of the three LEDs flashing.

	Possible cause	Recommended solutions	Remarks
READY and MEDIA LEDs flashing simultaneously	Failure to detect gap between labels or reflective marks	Check media path	Check the software setting if using continuous material
		Check the position of the media sensor	
		Calibrate the media sensor	
	Media roll has run out	Load labels	
	Media jam	Clear media jam	
READY and RIBBON LEDs flashing simultaneously	Media sensor error	Replace media sensor	
	Ribbon roll has run out	Loading the transfer ribbon	
	Ribbon jam	Clear ribbon jam	
READY flashes	Ribbon sensor error	Replace ribbon sensor	Must be done by service personnel
	Serial interface error	Check the baud rate and DIP switch settings	
	Memory overflow	Restart printer	
		Perform reset	

### 6.2 Miscellaneous Faults

#### Vertical unprinted area (vertical white line)

Continuous, vertical white lines in the printed image indicate a dirty or defective printhead.



If the problem cannot be solved by cleaning the printhead, it must be replaced.

#### PC indicates: "Printer Timeout"

1. Check whether the printer connecting cable is connected between the PC and the printer.
2. Check whether the printer is switched on.

If these actions do not eliminate the fault, contact your dealer or technical customer service.

#### Data has been sent to the printer, but there is no printout

1. Check whether the correct Windows printer driver has been selected.
2. Perform reset.

If these actions do not eliminate the fault, contact your dealer or technical customer service.

#### Print quality problems

1. Check the heat level settings.
2. Adjust the print speed.
3. Clean the printhead and platen roller.
4. Ensure that the correct media and ribbon have been loaded into the printer.
5. Only use high quality media material.

#### Reset printer

After carrying out the above-mentioned actions, press CANCEL to reset the error. The printer is ready for use again.

#### Miscellaneous

If problems occur which are not described here, contact your dealer or technical customer service.

## 7.1 RS 232 Serial





Baud rate: 9600, 19200, 38400, 57600  
(Setting by DIP switches 7 - 8)

Data format: Always 8 data bits, 1 start bit and 1 stop bit

Parity: Always non parity

Flow control: RTS/CTS (Hardware flow control),  
If you are using software or drivers under the Windows® environment, the flow control must be set to "hardware".

### Pin assignment

Printer		Host 1				Host 2			
9-pin interface		25S		9S		25S		9S	
TX	2	RX	3	RX	2	RX	3	RX	2
RX	3	TX	2	TX	3	TX	2	TX	3
CTS	4	RTS	4	RTS	7				
GND	5	GND	7	GND	5	GND	7	GND	5
RTS	6	CTS	5	CTS	8		4		4
DSR	7	DTR	20	DTR	4		5		6
DTR	8	DSR	6	DSR	6		6		7
							20		8

## 7.2 Parallel (Centronics)

The parallel port is a 36-pin Centronics interface. Its pin assignments are as follows:

Pin	Direction	Definition	Pin	Direction	Definition
1	In	/STROBE	13	Out	SELECT
2	In	Data 1	14,15		NC
3	In	Data 2	16	-	Ground
4	In	Data 3	17	-	Ground
5	In	Data 4	18		NC
6	In	Data 5	19~30	-	Ground
7	In	Data 6	31		NC
8	In	Data 7	32	Out	/Fault
9	In	Data 8	33~36	-	NC
10	Out	/ACK			
11	Out	BUSY			
12	Out	PE			

Any communications port can transmit data from the host (Centronics, RS 232, Ethernet, and USB).

Preliminary communications settings are not required since the printer will automatically detect which port is active.



**Never send data from 2 ports at the same time.  
Then data corruption and print errors may occur.**



## 7 Interfaces

15

### 7.3 Ethernet Interface

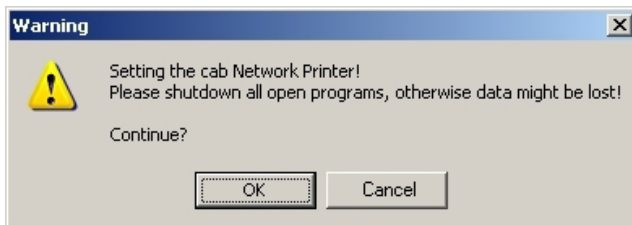
Handshake: TCP/IP  
Connector type: RJ45  
Standard IP address: 199.9.9.196.



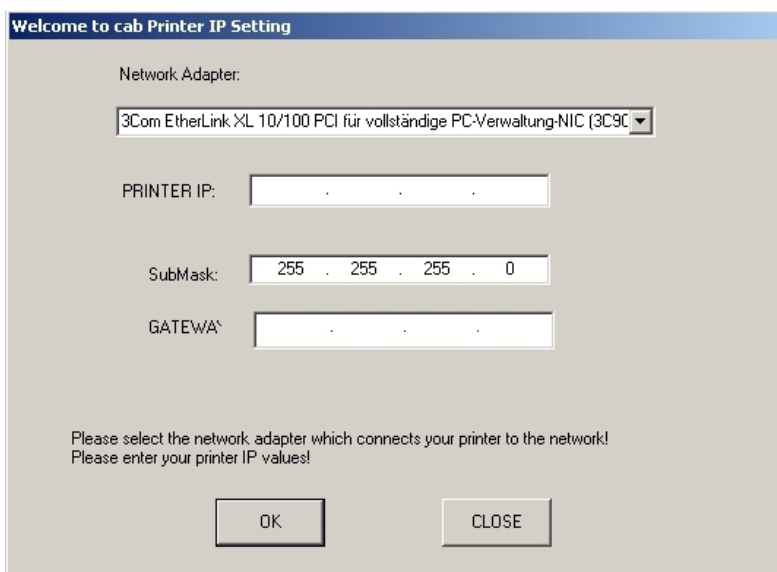
Only connect the printer if the standard IP address has not been assigned elsewhere, change the other assignment if necessary.

#### Configure the IP address of the printer

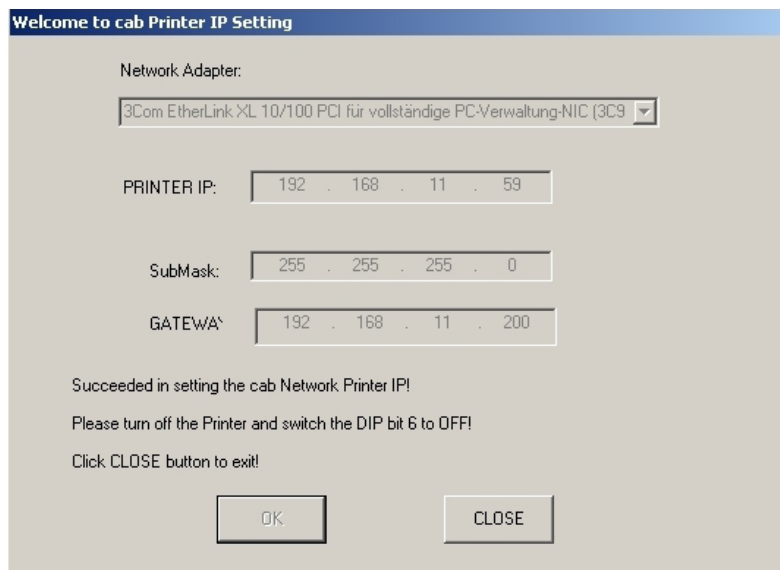
1. Switch off printer.
2. Set DIP switch 6 to ON.
3. Switch on printer.
4. Close all application programs on the PC.
5. Start the program IPSETUP.EXE to set the IP address from CD.



6. Press OK.



7. Select a network adapter and printer IP, enter gateway if necessary. Confirm with OK.
8. Setup is now executed. An error message appears if an IP address cannot be entered, in this case check the network connection.  
The following window appears when the setup has been finished successfully.



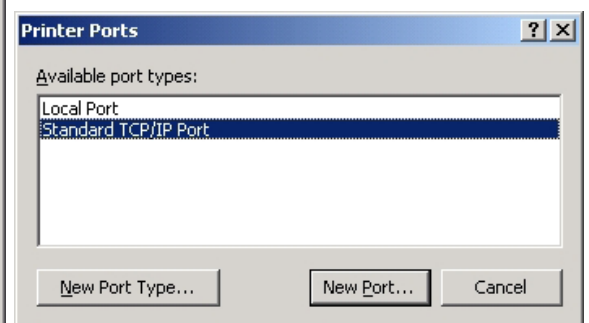
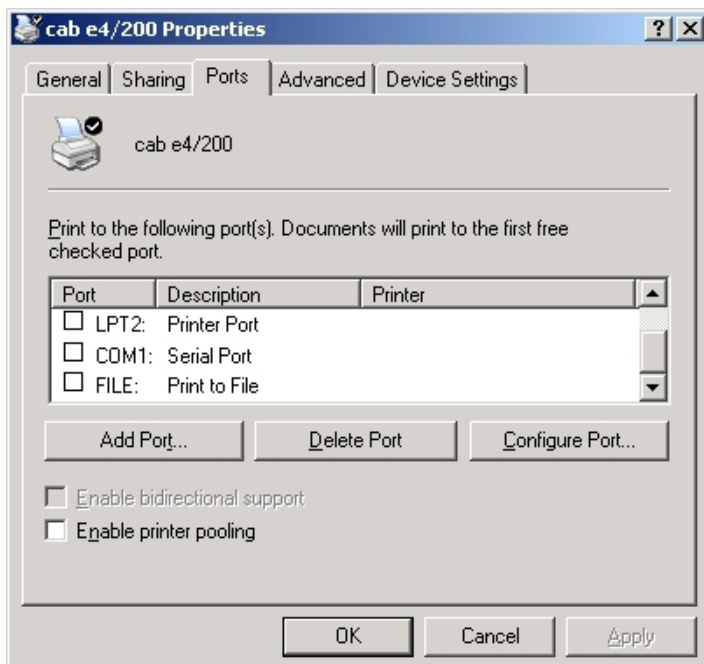
9. Confirm with CLOSE.
10. Switch off printer.
11. Set DIP switch 6 to OFF.



The IP address of the printer can be checked by a self-test printout.

#### Setting up the printer driver

1. Select the cab printer driver in the operating system under "Start" -> "Settings" -> "Printers and Faxes", and add a new standard TCP/IP connection in the properties under "Ports".



2. Enter the IP address of the printer in the wizard to add a TCP/IP connection.

3. Enter standard as the device type, and follow the further instructions of the wizard.

## 7.4 ASCII Table

	0	1	2	3	4	5	6	7
0	NUL			0	@	P	'	p
1	SOH	XON	!	1	A	Q	a	q
2	STX		"	2	B	R	b	r
3		XOFF	#	3	C	S	c	s
4			\$	4	D	T	d	t
5	NAK		%	5	E	U	e	u
6	ACK		&	6	F	V	f	v
7	BEL		'	7	G	W	g	w
8	BS		(	8	H	X	h	x
9			)	9	I	Y	i	y
A	LF		*	:	J	Z	j	z
B		ESC	+	;	K	[	k	{
C	FF		,	<	L	\	l	
D	CR		-	=	M	]	m	}
E	SO	RS	.	>	N	^	n	~
F	SI	US	/	?	O	_	o	DEL

<b>A</b>		<b>L</b>		Printhead holder .....	5
Accessories .....	5	Labels		Printhead resolution .....	4
ASCII table .....	17	Height .....	4	Printing method .....	4
<b>B</b>		Loading .....	7	Print module .....	5
Barcodes .....	4	Material .....	4	Print quality problems .....	13
Bottom case .....	5	Material thickness .....	4	Print speed .....	4
<b>C</b>		Material weight .....	4	Print width .....	4
CANCEL .....	10	Material width .....	4	Processor .....	4
Cleaning .....	12	Media roll .....	4	Product description .....	4
Configuration report .....	11	Width .....	4		
Control panel .....	5, 10	LED .....	10	<b>R</b>	
Cover .....	5			RAM .....	4
<b>D</b>		<b>M</b>		READY .....	10
Device overview .....	5	Main switch .....	5	Reset .....	11
DIP switches .....	5, 10	MEDIA .....	10	RIBBON .....	10
Disposal in an eco-friendly manner .....	3	Media exit path .....	5	Ribbon spindle .....	5
<b>E</b>		Media feed roller .....	5	Ribbon unwinding unit .....	5
eLabel .....	4	Cleaning .....	12	ROM .....	4
Environment .....	3, 6	Media guide .....	5	<b>S</b>	
Error messages .....	13	Media holder .....	5	Safety	
Ethernet port .....	5	Media roll .....	5	Instructions .....	3
<b>F</b>		Media roll guide .....	5	Regulations .....	4
Faults .....	13	Media sensor .....	5	Self-test .....	11
FEED .....	10	Calibrating .....	11	Serial port .....	5
Font types .....	4	Positioning .....	8	Service work .....	3
<b>G</b>		Media spindle .....	5	Software	
Getting started .....	6	Multifunction buttons .....	10	Capacity .....	4
Graphic elements .....	4	<b>N</b>		Installation .....	7
Graphic formats .....	4	Normal mode .....	10, 11	System mode .....	10, 11
<b>H</b>		<b>O</b>		<b>T</b>	
Humidity .....	4	Operating functions .....	11	Technical data .....	4
<b>I</b>		Operation temperature .....	4	Transfer ribbon	
Important information .....	3	Operator controls .....	10	Core diameter .....	4
Intended use .....	3	<b>P</b>		Loading .....	9
Interface		Parallel port .....	5	Roll diameter .....	4
Ethernet .....	15	PAUSE .....	10	Running length .....	4
Parallel .....	14	PAUSE status .....	10	Width .....	4
Serial .....	14	Power cable .....	5	Winding direction .....	9
Interfaces		Power input socket .....	5	Transmission problems .....	6
Connecting .....	6	Power supply .....	3		
Default settings .....	6	Connecting .....	6	<b>U</b>	
IP address		Power switch .....	10	Unlocking button of the print module .....	5
Check .....	16	Power unit .....	5	USB port .....	5
Configuring .....	15	Printer		<b>V</b>	
		Dimensions .....	4	Voltage .....	4
		Weight .....	4	<b>W</b>	
		Printer driver		Warning stickers .....	3
		Installation .....	6	Work going beyond .....	3
		Setting up .....	16		
		Printer timeout .....	13		
		Printhead .....	5		
		Cleaning .....	12		