



Label printer

MACH4 The Business Class.

Product type overview MACH4

One concept – three designs



B with tear off plate

The label should stick out of the printer for at least 30 mm for tearing off.

Printing method	Thermal transfer / Thermal direct		
Print resolution dpi	203	300	600
Print speed up to mm/s	200	200	100
Print width up to mm	104	105.6	105.6



P with tear off plate and dispense function

The label height when dispensing is down to 20 - 200 mm.

Printing method	Thermal transfer / Thermal direct		
Print resolution dpi	203	300	600
Print speed up to mm/s	200	200	100
Print width up to mm	104	105.6	105.6

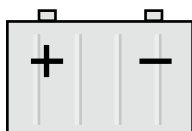


C with tear off plate and cutter

Labels or continuous material can already be cut at a height of 12 mm.

Printing method	Thermal transfer / Thermal direct		
Print resolution dpi	203	300	600
Print speed up to mm/s	200	200	100
Print width up to mm	104	105.6	105.6

Options



24 volt battery operation

For the battery operation there is a control PCB with 24 volt battery access built in instead of the power supply unit. Thus the printer can be used in a mobile way. The print speed is thereby limited to 100 mm/s. The battery capacity is sufficient for at least one working day.



RFID Read-Write Unit

The transfer printers can be additionally equipped with a RFID read and rewrite transponder in Smart-labels with 13.56 MHz according to ISO 15693.

Primary features

Detailed perfection

- The future “made by cab”: MACH4, the new label printer which sets new, innovative benchmarks.
- It offers all the features of a high class industrial printer with a wide application range.
- Labels and ribbons can be inserted from the front. The print mechanism and the cover are made of premium materials and are perfectly harmonized in their form and their functions.
- Easy and comfortable handling and high reliability were the requirements during development. The large display with white backlight offers best readability.
- The navigation pad with the additional “Enter” button simplifies the operation - thereby only the operated functions are indicated.
- The centred label path makes adjustments unnecessary and avoids wrinkling of the ribbon.
- On the high-tech electronic board all required interfaces are serially integrated and applicable for every adapter.



Innovative technology for better climate protection, energy-saving, environmentally conscious.



Convincing product advantages

1 Cover with large window

Can be opened widely. The integrated absorbability mechanism provides smooth closing. The label supply is visible at all times.

2 Media hub

The label roll is placed within the media hub and centred automatically. Materials varying in width can be easily fit within the box.

3 Ribbon retainer

The ribbon is slid onto a ribbon supply hub with spring mounted brackets. It can be centred with a movable flange and a positioning indicator. Inserting the ribbon into the print mechanism is now easy and convenient.

4 Print mechanism

It is opened at the push of a button and offers best access.

5 Printing with 203, 300 or 600 dpi

The printheads can be exchanged easily from 203 to 300 dpi. The printer automatically detects the resolution.

6 Gap sensor

To detect the beginning or end of labels the gap sensor is mounted in the centre of the label path. For multi-track labels the user can switch to another sensor which is shifted 10 mm sideways.

7 Label guidance

With the adjustment knob the user can adjust the width of the printing area. This is to centre the labels.

8 Reflex sensor

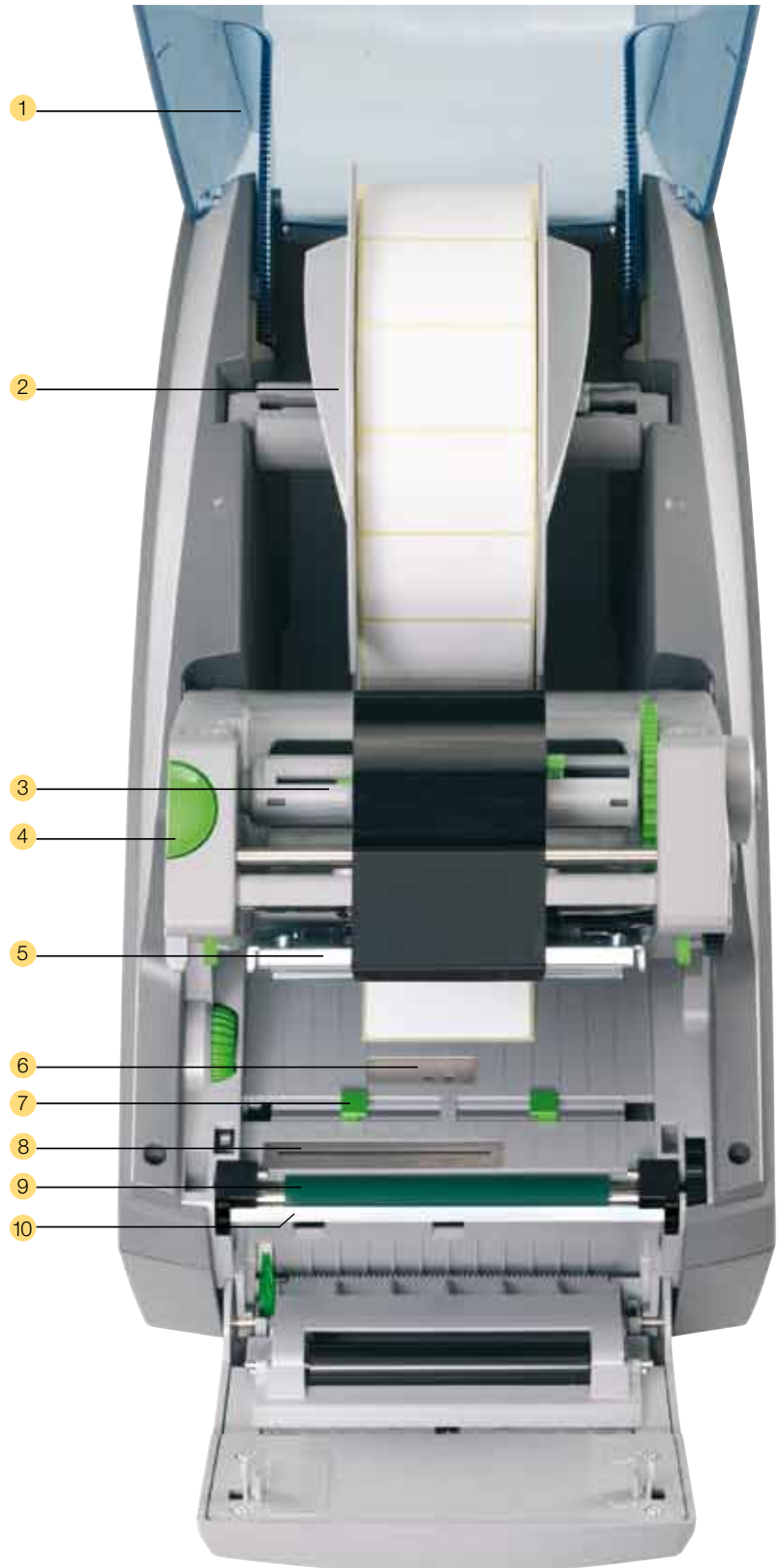
Start of label, printer's imprint and cut outs can be identified with a adjustable reflex sensor.

9 Drive roller

The drive roller can be easily removed for cleaning or replacement.

10 Peel-off-plate

The liner is guided down behind the operation panel. The label is peeled off at the peel-off-plate.



All interfaces built in

Back side of printer



- 1 RS232C interface.
- 2 USB 2.0 Slave interface.
- 3 Ethernet 10/100 Base T-interface with TCP/IP.
- 4 Slot for Wireless LAN-Wifi-card.
- 5 Two USB-Master-interfaces to connect an external operation panel, keyboard, scanner or Service Key.
- 6 Slot for memory card CompactFlash Type I.

Options



Centronics interface bi-directional acc. IEEE 1284. Interface RS422/RS485 1.200 bis 230.400 Baud/8 Bit.

The interfaces are plugged onto the PC. Connection to the printer via mini USB connection cable.



Label selection box – I/O box. Up to 16 different labels can be loaded via SPS from a memory card. Operation of four in-/outputs via Basic Interpreter.



cab WLAN card 802.11 b/g.

Accessories for the stand-alone operation



Memory card
CompactFlash Type I



Compact keyboard
Connection: USB
Number of keys: 86
L x W mm: 282 x 132
Cherry G84-4100



Standard keyboard
Connection: USB
Number of keys: 115
L x W mm: 460 x 192
Cherry G83-6105

The functions of the devices and conformity to CE-standards are only warranted by using the accessories made by cab or recommended by cab.

Stand-alone operation

Printing with a cab printer without PC.

The layout of the labels is created either with the label software or direct programming via text editor directly on the PC. Label formats, fonts and graphic data, serial data and data base contents are saved or imported on the CF memory card or the internal IFFS printer memory.

Only variable data is sent to the printer via keyboard or host computer before being printed out. Data of a barcode scanner or a scale can be additionally received by the printer.



1. Printhead		MACH4		
Printing method	Thermal transfer	■	■	■
	Thermal direct	■	■	–
Print resolution dpi		203	300	600
Print speed up to mm/s		200	200	100
Print width mm		104	105.6	105.6
2. Material				
Labels, continuous rolls or fan-folded		Paper, cardboard, textile, plastic foils PET, PE, PP, PVC, PU, Acrylat, PI		
Material thickness mm / weight g/m ²		0.055 - 0.8 / 60 - 200		
Label width ¹⁾ mm		6 - 116		
Width of carrier or of continuous material mm		25 - 120 / from 0.4 mm Material thickness 5 - 120		
Label height ¹⁾ mm		5 - 4500		
	when dispensing ¹⁾ up to mm	20		
Material height when cutting ¹⁾ mm		12		
Media roll:	Total diameter up to mm	205		
	Core diameter mm	38 - 100		
	Winding direction	outside our inside		
3. Ribbon				
Ink		outside our inside		
Roll diameter up to mm		72		
Core diameter mm		25		
Ribbon length variable up to m		360		
Width ²⁾ up to mm		114		
5. Dimensions printer				
Height x Depth x Width mm		312 x 435 x 240		
Weight kg		6		
6. Label sensor				
See-through sensor		for label edge or punching mark and end of material		
Position		centered or shifted 10 mm to the left		
Reflective sensor ³⁾		for label edge, punching or centered printing mark		
Position		adjustable 56 mm to the left / 10 mm to the right		
7. Electronics				
Processor high speed 32 Bit ColdFire/clock frequency MHz		266		
(RAM) MB		64		
Memory IFFS MB Flash		8		
Slot for memory CompactFlash-card Type I		■		
Slot for Wireless LAN-card		■		
Battery cache for		Real-time clock, printout of time and date Storage of data with shut-down		
Warning signal		Acoustic signal when error		
8. Interfaces				
Parallel Centronics bi-directional acc. IEEE 1284		<input type="checkbox"/>		
Serial RS 232 C 1.200 up to 230.400 Baud/8 Bit		■		
USB 2.0 High Speed Slave for PC-connection		■		
Ethernet 10/100 Base T, LPD, RawIP-Printing, ftp-Printing, DHCP, HTTP, FTP, SMTP, SNMP, TIME, Zeroconf, mDNS, SOAP		■		
RS422, RS485 1.200 up to 230.400 Baud/8Bit		<input type="checkbox"/>		
WLAN card 802.11b/g WEP/WPA PSK (TKIP)		<input type="checkbox"/>		
2 x USB Master		for external operation panel, keyboard, scanner, service key		
9. Operation data by		100 - 240 V	24 VDC	
Power supply		~ 50/60 Hz, PFC		
Energy consumption		max. 300 W		max. 250 W
Operation temperat.		10 - 35°C		10 - 35°C
Humidity		30 - 85% not condensing		30 - 85% not condensing
Approvals		CE, FCC class A, CB, CCC, UL		CE, more on request

¹⁾ Depending on label size, material and adhesive limitations are possible. Critical material or applications have to be tested and cleared.

²⁾ The ribbon should approximate the width of the labels in order to avoid drapery.

■ Standard Option

³⁾ Reflective sensor with RFID not available.

10. Operation panel	
Buttons/LED display	Pause, Feed, Cancel, Menu, Enter, 4 x Cursor
LCD graphic display	Width 60, Height 40 mm Text 4 lines, ca. 20 characters per line
11. Settings	
	digital or analog clock time system settings date print parameters interfaces 25 language settings security
12. Monitoring	
Stop printing if	End of ribbon End of labels Printhead open
On the Display	Data reception Clock WLAN field intensity Date sheet Ethernet state abc Debug Used memory Input buffer Temperature printhead Access to memory card Remaining quantity of ribbon
13. Test routines	
System diagnosis	When switched on with testing of printhead
Short Status, Status print	font list, device list, WLAN state, profile of label, test grid, monitor mode, PPP state
Status reports	Extensive status print with information about setting, e.g. print length counter, runtime counter etc. Request of machine state via software command. Detailed status messages on the display, e.g. network error-no link, barcode error etc.
14. Fonts	
Font types	5 Bitmap fonts incl. OCR-A, OCR-B and 3 Vector fonts Swiss 721, Swiss 721 Bold and Monospace 821 available internally, loadable TrueType fonts. Optional Chinese (simplified Chinese) Optional Thai
Character sets	Windows 1250 up to 1257, DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869, EBCDIC 500, ISO 8859-1 up to -10 and -13 up to -16, WinOEM 720, UTF-8, Macintosh Roman, DEC MCS, KOI8-R. All West and East European latin, cyrillic, greek, hebrew and arabic characters are supported. Optional Thai and Chinese
Bitmap-Fonts	Size of width and height 1 - 3 mm zoom 2-10. Orientation 0°, 90°, 180°, 270°
Vector-/TrueType fonts	Size of width and height 0.9 - 128 mm variable zoom, Orientation 360° in steps of 1°
Font formats	Bold, italic, underlined, outline, negative, grey, vertical, depending on character fonts
Font width	Variable

15. Graphics	
Graphic elements	Line, arrow, box, circle, ellipse, filled and filled with fading
Graphic formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG
16. Barcodes	
Linear Barcodes	Code 39, Code 93 Interleaved 2/5 Code 39 Full ASCII Ident- and lead Code 128 A, B, C code of german Codabar Post AG EAN 8, 13 JAN 8, 13 EAN/UCC 128 MSI EAN/UPC Appendix 2 Plessey EAN/UPC Appendix 5 Postnet FIM RSS 14 HIBC UPC A, E, E0
2D-Codes	Aztec, Codablock F, Data Matrix, PDF 417, Micro PDF 417, UPS Maxicode, QR-Code, RSS 14 truncated, limited, stacked and stacked omnidirectional, EAN-Datamatrix, GS1 Data Bar
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. Software	
Programming	J-Script direct programming ■ abc-Basic Compiler ■ Database Connector □
System diagnosis/ Administration	printer monitoring ■ Network Manager □
Label software	cablabel R2+ ■ Codesoft, Nicelabel, Easylabel ○ □ Bartender, Label Matrix, Labelview ○
Windows driver certified	32/64 bit for Windows 2000 Server 2003 Windows XP Server 2008 ■ Windows Vista Server 2008 R2 Windows 7
Mac driver	OS X printer driver from version 10.4 ■
Linux driver	Testet with Suse 9.0, CUPS based ■
Stand-alone operation	■
Standard ■ Option □ Authorized distribution by resellers ○	

External rewinder ER4



- 1 Roll diameter: max. 210 mm
- 2 Operating voltage: 100 - 240 V ~
- 3 Core diameter mm: 40 / 76

Media hub



For a quick replacement labels and ribbons can be provided in additional holders.

Ribbon holder



Removable battery 4VDC/7.2A



Operating voltage:
24 VDC / 7.2 Ah
LxWxH mm: 380 x 185 x 90
Weight: 5.5 kg

Recharger 24 V



Operating voltage:
100-240 V ~
Charging rate: max. 2 A
Charging time: 6 - 8 h
when completely recharged

Connecting cable



Length: 1.5 m
Additional lengths
on request

Connecting plug



For self cable fabrication
Powercon NAC3FCA

Memory card



CompactFlash Typ I
Label formats, fonts, texts and graphics can be saved. It can be accessed from the printer or from the PC.

Compact keyboard



Connection: USB
No. of key: 86
L x W mm: 282 x 132
Cherry G84-4100

Standard keyboard



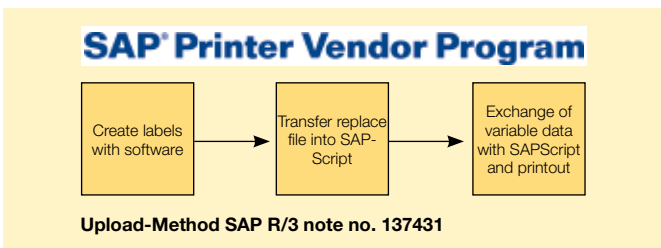
Connection: USB
No. of key: 115
L x W mm: 460 x 192
Cherry G83-6105

On this account the operation and the compliance with CE-standards is only warranted by using cab-made materials or materials recommended by cab.

J	Job Start
H 100	Speed (100 mm/s)
O R	Orientation rotated by 180°
S l1;0,0,68,70,100	Size of label (100x68 mm, gap 2 mm)
T 10,10,0,5,pt20;sample	Text object/font: Swiss bold, 20 pt
B 10,20,0,EAN-13,SC2;401234512345	Barcode EAN 13, size SC 2
G 8,3,5,0;R:30,9,0,3,0.3	Graphic, box 30 x 9 mm, Line strength 0.3 mm
A 1	Number of labels (in this example 1)

Direct programming with J-Script

The printer language is easy to understand and integrate into your host system. Linkage of variable data with host application. Label design, graphics and fonts are recorded on the compact flash card. The host computer sends only the variable data to the printer.



Integration into SAP R/3

In collaboration with SAP cab developed the so-called "Replace method" in order to control the cab printers with SAPScript from SAP/R3.

As a Silver Level-partner in SAP's Printer Vendor Program cab has access to the SAP development area for optimal printer support in a SAP environment.

SAP and R/3 are registered trademarks of SAP AG.

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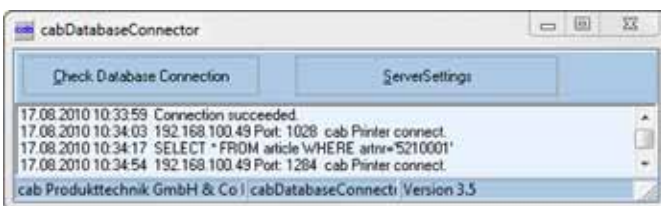
calypso.lib - Editor
Datei Bearbeiten Format Ansicht ?
<ABC>
label start
input a$
if left$(a$,15)="194300301480070" then
  print "R t2;";mid$(a$,16)
endif
if left$(a$,15)="194300300580172" then
  print "R t3;";mid$(a$,16)
endif
if left$(a$,15)="194300301970073" then
  print "R t1;";mid$(a$,16)
endif
if a$="Q0001" then
  print "A 1"
endif
goto start
  
```

abc - Basic Compiler

As an integrated element of the firmware it enables the printer to process data via BASIC programming before being transmitted to print editing. Thereby external printer languages can be replaced or data from other systems, e.g. SPS or a scale, can be transferred to be printed on different label sizes.



Example of use:
Connection to a scale



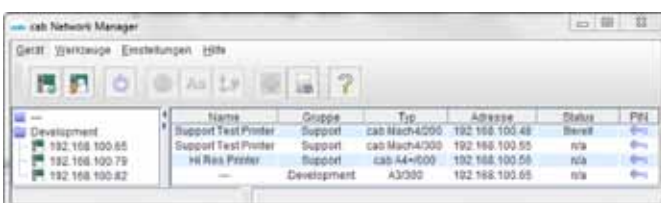
Database Connector

In the stand-alone mode with additional network connection the Database Connector enables stand-alone printers to link up data from a SQL-compatible database and to print. Data can be rewritten and modified simultaneously with the printing process.



Printer monitoring with Intra- and Internet

The integrated HTTP- and FTP-Server enables, with standard programs like web browser or FTP-clients, the print monitoring, configuration, the firmware-update and the administration of the memory card. Status signals, warning or error signals are sent to users or administrators either as email or SNMP-datagram via SNMP- and SMTP-clients. Synchronization of time and date with a time server.



Administration Network Manager

The cab Network Manager enables the user to control multiple printers across a network simultaneously. It supports monitoring, configuration, firmware updates, memory card, datasynchronization and PIN-administration centrally.



WHQL-accredited Windows printer driver for

- Windows 2000
- Windows XP
- Windows Vista
- Windows 7
- Windows Server 2003
- Windows Server 2008
- Windows Server 2008 R2

Our printer drivers are officially accredited and signed by Microsoft. They offer highest stability on your Windows operating system. The programs Word, Excel, Access, Corel Draw etc. permit the design and printing of labels.



Apple-Mac OS X® driver*

Alternatively cab offers a CUPS-based printer driver for MAC OS.

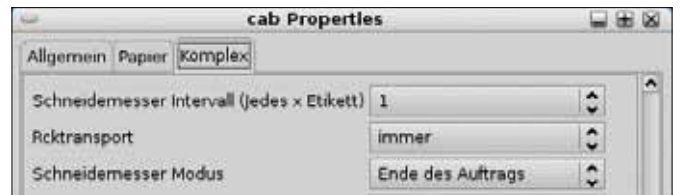
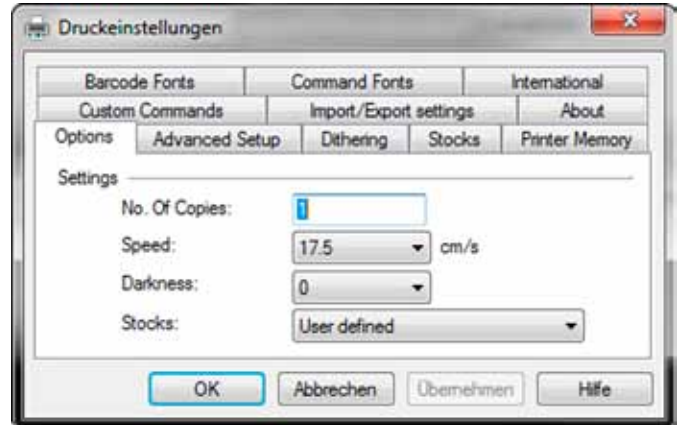


Linux driver*

Alternatively cab offers a CUPS-based printer driver for Linux.

*not for XD4M

Microsoft® is a registered trademark of Microsoft Corporation.
MAC OS® is a registered trademark of Apple Computer, Inc.



Label software

cablabel R2+

A powerful label software for free, specially designed for cab printers and print & apply systems.

The ideal design of a label is realizable by using different fonts, barcodes and graphics in variable heights, widths and printing directions.

The cab printers offer, besides the loadable MS Windows-available TrueType Fonts, a large number of internal bitmap and vector fonts. Due to the support of the most commonly used codepages country-specific special characters are also printable.

Highly productive functions permit the design and printing of complex labels within just a few minutes. cablabel R2+ supports special functions of the cab printers such as real-time clock, printer counter, stand-alone operation without PC, circular fonts or the display of the data stream into a data file. The MDI-technology permits the synchronous tensioning of several labels and the switching of different objects.



Cablabel R2+ is available in 24 different languages for the following operating systems:










- Windows XP
- Windows Vista
- Windows 7
- Windows Server 2003*
- Windows Server 2008*

















*Terminalserver / Citrix are not supported.

Additional label software...

...such as Codesoft, Nicelabel, Easylabel, Bartender, Label Matrix or Labelview support cab's transfer printers and print & apply systems.

More information is available on our homepage.

	Part. No.	Hardware	dpi
	5541082 5541083 5541086	with tear off plate Label printer MACH4/200B Label printer MACH4/300B Label printer MACH4/600B	
	5541092 5541093 5541096	with tear off plate and dispense function Label printer MACH4/200P Label printer MACH4/300P Label printer MACH4/600P	
	5541102 5541103 5541106	with cutter Label printer MACH4/200C Label printer MACH4/300C Label printer MACH4/600C	
	554xxxx.600	Label printer MACH4/xxxx-24V	
	5541xxx.102	Label printer MACH4/xxxx with RFID read-write unit 13.56 MHz	
Content of delivery:			
DVD:		Label printer, Power cable Type E+F, length 1,8 m, Connecting cable USB, length 1,8 m Operating manual de/en	
		Brief instruction Quick Start in 17 languages, Operating manual de/en/fr, Configuration manual de/en/fr, Service manual de/en, Spare part list de/en, Programming manual en, Windows printer driver 32/64 bit in 19 languages for Windows 2000 Server 2003 Windows XP Server 2008 Windows Vista Server 2008 R2 Windows 7	
		Label software cablabel R2+ in 24 languages Database Connector en	
Part. No.	Spare parts		
	5541074.001	Printhead 4/203	
	5541073.001	Printhead 4/300	
	5541077.001	Printhead 4/600	
	5540896.001	Print roll DR4	
Part. No.	Accessories		
	5540750	External rewinder ER4/210	
	5540867.001	Media hub	

	Part. No.	Accessories	
	5540866.001	Ribbon holder	
	5541219	Removable battery 24 VDC / 7.2 A	
	5541221	Recharger 24 V	
	5541222	Connecting cable 24 V length 1.5 m	
	5917904	Connecting plug	
	on request	Compact PC keyboard USB Cherry Classic Line G84-4100LCM	
	on request	Standard PC keyboard USB Cherry G83-6504 LAD	
	5561043	Memory card CompactFlash Type I	
Part. No.	Interfaces		
	5954200	Centronics Interface	
	5954201	RS422/RS485 Interface	
	5954191	ELabel selection - I/O-Box	
	5561041	WLAN-card 802.11 b/g	
Part. No.	Connecting cable		
	5550818	Cable RS232 C 9/9-pin, length 3 m	
	5918008	Patch cable KAT 5e, 3 m grey	
Part. No.	Software		
	DL 40100	Database Connector Licence	
	5580215	Administration Network Manager	
	Content of delivery	Label software cablabel R2+	
	on request	Codesoft, NiceLabel, Easylabel	
	9008486	Programming manual english, printed copy	

The specifications are according to our current technical knowledge. They are subject to change.

Please recall current data from www.cab.de

The cab delivery program

Label printer A⁺ series



Label printer XD4
for double sided printing



Label printer XC6
for two-tone printing



Label printer e4



Label printer MACH4



Labels / Ribbons



Label dispenser HS150



Print and Apply
Hermes⁺



Print module PX-series



Label software



Laser marking systems
FL-series



Laser safety housing



- Headquarter in Germany
- cab subsidiaries
350 distribution partners
in more than 80 countries.



cab is represented in every active commercial centre - worldwide.

Four your efficient process: you can count on us in your day-to-day operations.

Welcome to our website – www.cab.de

Customer proximity worldwide with perfect service and short reaction time.

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