

Configuration Manual



Label Printer

EOS

Made in Germany

2 Configuration Manual for the following products

2

Family	Type
EOS	EOS1
	EOS4

Edition: 12/2016 - **Part No.** 9009272

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

**Danger!**

Draws your attention to an exceptionally grave, impending danger to your health or life.

**Warning!**

Indicates a hazardous situation that could lead to injuries or material damage.

**Attention!**

Draws attention to possible dangers, material damage or loss of quality.

**Notice!**

Gives you tips. They make a working sequence easier or draw attention to important working processes.

**Environment!**

Gives you tips on protecting the environment.



Handling instruction



Reference to section, position, illustration number or document.



Option (accessories, peripheral equipment, special fittings).

Time Information in the display.

Choose from the following options for connecting a computer to the label printer:

- Direct connection to the Ethernet interface (4) ▷ "2.1" on page 5.
- Connection via a computer network to the Ethernet interface (4) ▷ "2.1" on page 5.
- Direct connection to the full-speed USB slave interface (3) ▷ "2.2" on page 6.
- Connection to a wireless network via optional WLAN adapter connected to an USB master interface (2).
- Connection via optional Bluetooth adapter connected to an USB master interface (2).

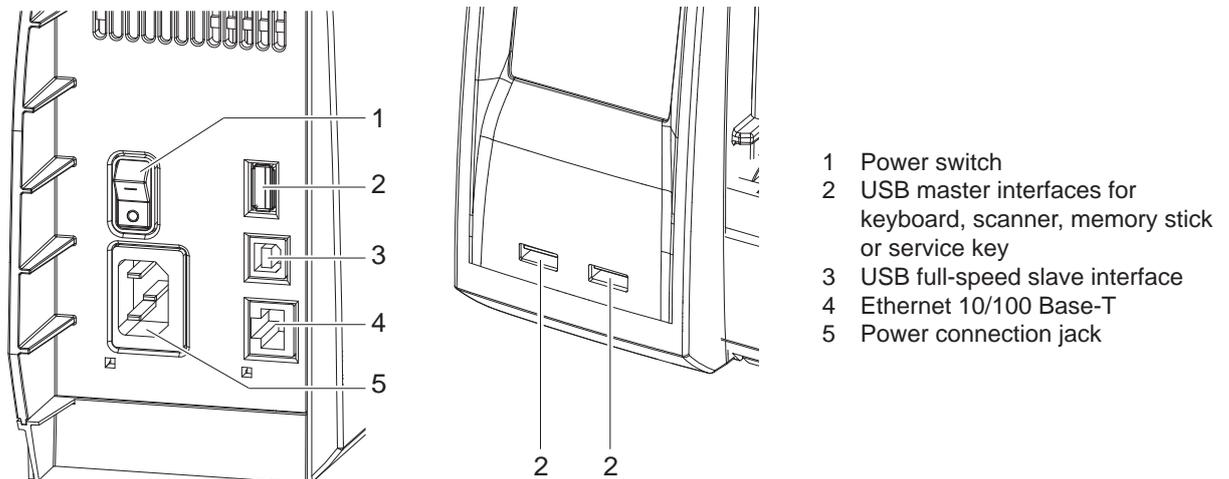


Figure 1 Connections

- 1 Power switch
- 2 USB master interfaces for keyboard, scanner, memory stick or service key
- 3 USB full-speed slave interface
- 4 Ethernet 10/100 Base-T
- 5 Power connection jack

2.1 Connecting Label Printer via Ethernet Interface

To connect the label printer to a network jack, a patch cable with an RJ45 plug for 10 Base T or 100 Base T is required. For direct connection of the printer to the Ethernet card of a local computer, use an appropriate crossover cable.



Attention!

- ▶ Use a shielded cable to connect the printer to the network.

1. Connect computer and label printer with a suitable cable.
2. Make basic settings for operation of the Ethernet interface ▷ "4.1.4" on page 16.
3. Call up the printer web interface ▷ "4.2.1" on page 18.
4. Open the "Setup" tab on the printer web interface.
5. Set the parameters described in ▷ Tab "Setup" on page 20 in the path `Setup > Interfaces > Network`.



Notice!

For changing parameter settings user name and password must be entered ▷ page 21.

User name : admin

Password (Default) : admin

6. Set up print service if necessary ▷ "2.1.1" on page 6.
7. Adjust Windows printer setting ▷ "2.1.2" on page 6.



Attention!

- ▶ Do not change the settings of the "IP" and "Gateway" on the printer web interface, as otherwise the connection to the printer may be lost.

2.1.1 Print Services Raw-IP and LPR/LPD in MS Windows

- ▶ Install a standard TCP/IP port as additional port for printing.
- ▶ During installation of the new port choose between "Raw" and "LPR"
- ▶ Raw-IP: Enter the same port address in the printer which you have selected during installation.
- ▶ LPD: "lp" (line printer) must be entered as the name of the printer on the computer (queue name).

2.1.2 Adjusting Windows Printer Setting

When the printer driver valid for your Windows version is installed on your computer, Windows standard applications can be used to edit the label contents and to start the print jobs. To use the Raw-IP or LPR/LPD print services, the Windows printer settings must be adjusted:

1. Open the folder containing the printers via Start > Settings > Printers.
2. Right-click the icon of the label printer.
A pop-up menu appears.
3. Select "Properties" in the pop-up menu.
4. Open the "Details" or "Connections" tab.
This tab contains, among other things, the connections which were also set up when the print services were installed. The names of these connections depend on the installation tool used.
5. Select the Raw-IP or LPR connection.
6. Click **OK**.

2.2 Connecting Label Printer via USB Interface

The full-speed USB interface allows the label printer to be operated via a USB interface of a computer running one of the 32bit or 64bit operating systems:

- Windows Vista
- Windows 7
- Windows 8
- Windows 8.1
- Windows 10
- Windows Server 2003
- Windows Server 2008
- Windows Server 2008 R2
- Windows Server 2012
- Windows Server 2012 R2.

A printer driver must be installed if a USB interface will be used for connection. The printer driver for your unit is found on the "Installer DVD" which is included in the scope of delivery or on the internet.

1. Switch label printer off..
2. Connect computer and label printer with an A-B cable.
3. Switch computer on.
4. Place the "Installer DVD" in the DVD drive.
5. Exit all programs currently running.
6. Switch printer on.
The Windows Installation Wizard is started automatically.
7. Follow the on-screen instructions. After successful installation, an icon for the label printer appears in the Windows "Printer" system folder.
8. Click icon in "Printer" system folder and make printer settings if necessary.

2.3 Setting Up a WLAN Connection

To set up a WLAN connection a WLAN USB Adapter (Part No. 5906225) is required.

1. Connect the WLAN USB adapter to an USB master interface.
2. Start the Offline menu.
3. Select `Setup > Interfaces > Network > WLAN`.
4. Set `DHCP` or `IP` and `Mask` and if necessary `Gateway` for WLAN operation ▷ "4.1.4" on page 16.
5. Select `Access-Point`.
6. Select `Scan`.
The display shows the available `Access-Points`.
7. Select the `Access-Point` to be used and confirm the selection with .
8. If the network is protected a prompt to enter the passkey appears in the printer display. Enter the passkey and select .
9. If the IP address is assigned by DHCP, identify the IP in the `Short status` ▷ "5.2" on page 26.
10. Call up the printer web interface ▷ "4.2.1" on page 18.
11. Open the "Setup" tab on the printer web interface.
12. Set the parameters described in ▷ Tab "Setup" on page 20 in the path `Setup > Interfaces > Network`.



Notice!

For changing parameter settings user name and password must be entered ▷ page 21.

User name : `admin`

Password (Default) : `admin`

13. Set up print service if necessary ▷ "2.1.1" on page 6.
14. Adjust Windows printer setting ▷ "2.1.2" on page 6.



Attention!

- ▶ **Do not change the settings of the "IP" and "Gateway" on the printer web interface, as otherwise the connection to the printer may be lost.**

2.4 Setting Up a Bluetooth Connection

To set up a Bluetooth connection a Bluetooth USB Adapter (Part No. 5906226) is required.



Notice!

A Bluetooth software is delivered with the Bluetooth USB Adapter.

1. Connect the Bluetooth USB adapter an to an USB master interface.
2. Switch on the printer.
3. Install the Bluetooth software on the computer.
4. Start the Bluetooth software.
5. Start "Search devices".
The printer will be shown in a list of Bluetooth devices.
6. Optional : For an well-defined connection of the devices select the printer and click "Connect Devices".
Either a passkey will be shown or a window will be opened where a passkey can be set. ▶ Set a passkey if necessary .
The display of the printer shows a prompt to enter the passkey too. ▶ Enter the passkey.
7. Select in the software "Connecting" via "Serial Bluetooth Interface".
The new interface, e.g `COM5`, will be shown
8. Install the current printer with connection via the new `COM` interface in the label software or in Windows.

3.1 Structure of the Offline Menu

The offline menu contains setting options on several levels for configuring the label printer. In addition, the offline menu features test functions for supporting the configuration or checking the function of the label printer. Using status functions, the set parameters can be displayed or printed.

1st menu level	2nd menu level	Access	
 Storage device	 Load label	* Only with storage device defined as Default storage	
	 Print directory		
	 Format	* Only with storage device defined as Default storage PIN protection possible	
	 Print file content	* Only with storage device defined as Default storage	
 Short status			
 Test	 Status print		
	 Font list		
	 Device list		
	 WiFi status	* Only with WLAN USB adapter installed	
	 ASCII Dump Mode		
	 Label profile		
	 Event log	 Only with service key inserted	
	 Local settings	PIN protection possible	
	 Machine param.		
	 Print param.		
 Interfaces			
 Status line			
 Service	 Firmware fr. storage device	* Only with storage device defined as Default storage PIN protection possible	
	 Load settings	* Only with storage device defined as Default storage	
	 Save settings	* Only with storage device defined as Default storage	
	 Reset service ctr.	 Only with service key inserted	
	 Reset passwords	 Only with service key inserted	
	 Save log files	* Only with USB memory defined as Default storage	
	 Printer model	 Only with service key inserted	
	 PPP	 Short status PPP	
		 Load PPP voucher	* Only with USB memory defined as Default storage

Table 1 Menu structure

3.2 Navigating in the Offline Menu

► Select  in the start display to start the Offline menu.

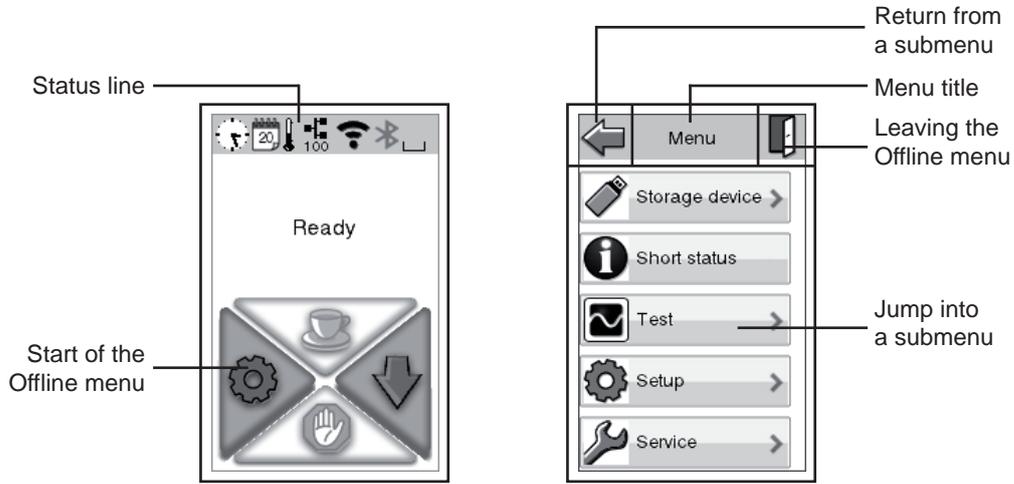


Figure 2 Navigating in the Offline Menu

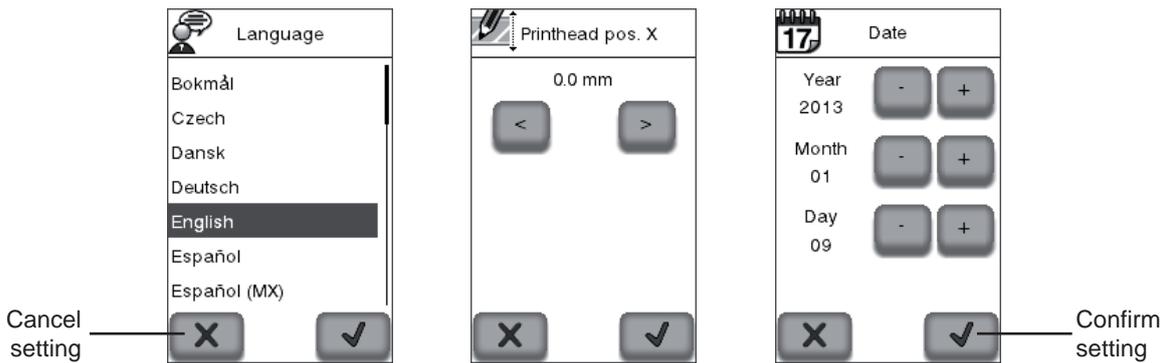


Figure 3 Examples of parameter setting



Notice!

All settings in the offline menu also can be made via the Ethernet interface (► page 20) or via direct control commands (► “Programming Manual”).



Notice!

A longer touching (>500 ms) of several widgets can cause the following actions :

	Clock	Jump to the setting Time
	Date Sheet	Jump to the setting Date
	Cutter	Jump into the submenu Cutter
	Ethernet status	Jump into the submenu Ethernet
	WLAN	Jump into the submenu WLAN

Table 2 Actions released by widget touching

3.3 Service Key

A service key is required for accessing special service functions not accessible to the operator. This key switches the printer to service mode and enables:

- Access to additional configuration parameters
- Resetting of the service counter
- Resetting of passwords
- Additional information in the status print and in the device list
- Printout of an event list
- Changing of the device name
- Access to PIN-protected configuration parameters and functions without entering the PIN
- Access to configuration parameters for optional assemblies, even if they are not currently installed



Attention!

Incorrect settings and data loss via unauthorized access.

Access protection is deactivated when the service key is inserted. Operation of the printer by unauthorized persons can lead to incorrect settings and data loss in this case.

- ▶ **Provide the service key to authorized persons only.**
- ▶ **Remove service key after service work and store it in a secure location.**

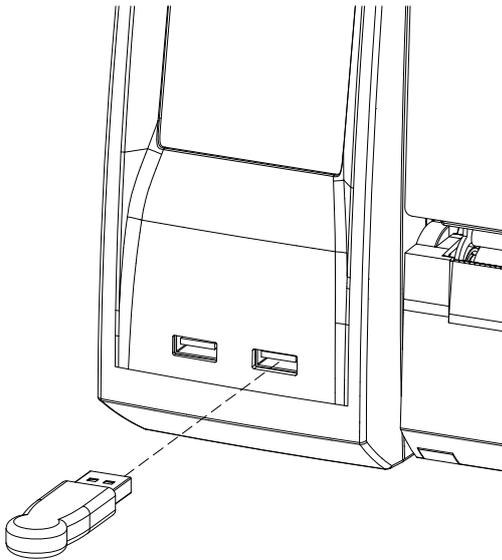


Figure 4 Inserting the service key

- ▶ Insert service key into a USB master interface of the printer.
The service key also can be inserted while the device is switched on.



Notice!

In this document, parameters and functions which are only accessible when the service key is inserted are indicated using the following note:

 **Access only with service key inserted!**

4.1 Configuration via Control Panel

A host of parameters for configuring the printer are found in the `Setup` menu of the offline menu.

- ▶ Configure the printer via the control panel during initial commissioning and when making major changes to the operational conditions.
- ▶ For changes required for processing different print jobs use software settings.



Notice!

The `Setup` menu can be protected from unauthorized access via a code number (PIN).

4.1.1 Local Settings

- ▶ Start Offline menu.
- ▶ Select `Setup > Local settings`.

Parameter	Meaning	Default
 Language	Setting the display language	English
 Country	Setting the country-specific date and time formats. The time formats can also be overwritten via software. The changes are not saved permanently, however.	Germany
 Timezone	Adaptation of the time display of the printer to the time zone in relation to UTC (Universal Time Coordinated).	UTC+1
 Daylight saving	Selection of the daylight saving regulation applicable for the region. The time is then changed automatically.	EU
 Date	Setting of the system date in the format DD.MM.YYYY. The print output of the date occurs in the format set via the <code>Country</code> parameter. The date can also be changed via software. The change is not saved permanently, however.	-
 Time	Setting the system time in the HH:MM:SS format. When changing the time, ensure that the <code>Timezone</code> , <code>Daylight saving</code> and <code>Date</code> parameters are set correctly. The time can also be synchronized automatically via the internet using the Ethernet interface. The print output of the time occurs in the format set via the <code>Country</code> parameter. The time can also be changed via software. The change is not saved permanently, however.	-
 Keyboard	Setting of the keyboard layout when using an external keyboard.  If keyboard is not connected, access only with service key inserted!	Automatic (=Setting Country)

Table 3 Parameters of the menu `Setup > Local settings`

4.1.2 Machine Parameters

- ▶ Start Offline menu.
- ▶ Select Setup > Machine param..

Parameter	Meaning	Default
 Printhead pos. X	Shifting of the entire print image perpendicular to the direction of paper flow. The absolute shifting is limited by the margins of the print zone. Those are determined by the width of the printing line on the printhead. The Printhead pos. X can also be set via software. The offset values from the Machine param. menu and the software are added together.	0,0 mm
 Printhead pos. Y	Shifting of the entire print image in the direction of paper flow. With positive values, printing begins later in the direction of paper flow. Shifting of the print image in the direction of paper flow also influences the cut position. ▶ Correct the Cut position parameters by the same value in the opposite direction. The Printhead pos. Y can also be set via software. The offset values from the Machine param. menu and the software are added together.	0,0 mm
 Tear-off pos.	Shifting of the tear-off position in the direction of paper flow. With positive values, the label strip is transported farther out of the printer.	0,0 mm
 Demand sensor	Configuration of the peel-off parameters for devices with dispenser module.  If dispenser module is not installed, access only with service key inserted	
 > Peel position	Offset of the peel position relative to the rear label edge. The Peel position can also be set via software. The offset values from the Machine param. menu and the software are added together.	0,0 mm
 > Backfeed delay	Delay time between removing the label from the peel position and the backfeed of the label.	250 ms
 > Liner tension	Setting of the peel-off tension  Access only with service key inserted	0%
 Cutter	Configuration of the cut parameters for devices with cutter.  If cutter is not installed, access only with service key inserted	
 > Cut position	Offset of the cut position relative to the rear label edge. The Cut position can also be set via software. The offset values from the Machine param. menu and the software are added together.	0,0 mm
 > Cutting depth	with perforation cutter only Setting of the perforation depth. The Cutting depth can also be set via software. The offset values from the Machine param. menu and the software are added together.	0
 Backfeed position	Offset of the backfeed movement	1,0 mm
 Brightn. LCD	Brightness of the LCD display from 1 to 8.	8
 Contrast LCD	Contrast of the LCD display from 0 to 15.	6
 Volume Speaker	Volume of the speaker : Mute, 1 or 2.	1
 Time Powersave	Time between the last operation and activation of energy-saving mode.	5 min

Parameter	Meaning	Default
 Cleaning interval	Setting of intervals for printhead cleaning in increments of 100 m media passage. If the set length of the medium (label strip, transfer ribbon) has passed the printhead and an error occurs in the flow of the medium (e.g. label end, transfer ribbon end), the <code>Clean printhead!</code> message appears in the display. The error message for the error which occurred is not displayed until the <code>Clean printhead!</code> message is acknowledged. As long as no errors occur in the medium flow, no messages are displayed and the print job is continued even if the cleaning interval has passed.	1000 m
 Debug mode	Operating mode which supports the firmware programmer when localizing errors.	Off

Table 4 Parameters of the menu `Setup > Machine param.`

4.1.3



Print Parameters

- ▶ Start Offline menu.
- ▶ Select Setup > Print param..

Parameter	Meaning	Default
 Heat level	The Heat level setting only affects the test printouts and print jobs without heat level definition in the software. Otherwise the heat level defined in the software is used.	0
 Print speed	Basic print speed setting. The print speed can be re-specified for each print job via software. The basic setting is not changed by this. The print speed setting also affects the test printouts.	50 mm/s
 Transfer print	On for thermal transfer printing: Sensor for monitoring the transfer ribbon is activated. Off for thermal direct printing: Sensor for monitoring the transfer ribbon is not activated. The setting can be overwritten for each print job via software. The basic setting is not changed by this.	On
 Warn level ribbon	Warning via the Ethernet interface by way of an SNMP message or e-mail sent when the remaining diameter of the ribbon supply roll undershoots the set value (32–74 mm).	Off
 Label sensor	Method for detecting the starting end of the label. Gap Sensor: Detection using changes in the transparency between the label and label gap. Bottom-Reflect: Detection using reflex marks on the bottom of the medium.	Gap Sensor
 Extrapolate pos.	The positions of the labels which are between the label sensor and the printhead are calculated from the first label recognized by the sensor and the programmed label distance. That way those labels can be printed.	off
 Tear-off mode	Positioning the label medium for tearing off at the tear-off plate. On: Additional advancement of the label medium which positions the label gap after the last printed label at the dispense plate. Off: Label advance stops once the last label has fully passed the print line.	On
 Backfeed	Method for backfeeding the label medium. Backfeeding is necessary in the cutting mode since the front edge of the next label has passed the print line when cutting a label. always: Backfeeding occurs independently of label contents. smart: Backfeeding only occurs when the next label is not yet fully prepared cutting the current label. Otherwise, the printing of the next label is started, interrupted and completed after cutting of the first label without backfeeding.	smart
 Single-Print mode	Peel-off mode : Behavior after removing a label from the peel position On: The next label will be printed and peeled-off after touching  Off: The next label will be printed and peeled-off immediately Cut mode : Behavior between the cuts On: After cutting the next label will be printed and cut after touching  Off: All labels will be printed and cut nonstop  If dispenser module or cutter are not installed, access only with service key inserted	Off

Parameter	Meaning	Default
 Error-Reprint	On: With a correctable error and corresponding troubleshooting, the label being printed when the error occurs is repeated. Off: Print job is continued with the next label.	On
 Reprint option	Printing of another label with the information of the previous print job by touching  . This function can be executed until the print buffer is cleared with  .	On
 Protocol error	On: Printer switches to Error mode when unknown or faulty data is received. Off: When working with older computer operating systems, it is possible that the print spooler of the operating system will reply to the printer with normal status messages of the printer (e.g. end of paper) in the form of ASCII text. The printer cannot interpret this data and outputs a large number of protocol errors. In this case, it is advantageous to set the <code>Protocol error</code> parameter to Off. Attention! If the <code>Protocol error</code> parameter is set to Off, protocol errors which can be traced back to faulty programming are also ignored. There is a risk of data loss.  Access only with service key inserted!	On
 Barcode error	On: With faulty barcode contents or size specifications, printing is interrupted. Off: Printing is not interrupted if an error occurs. If barcode contents are faulty, the printer attempts to replace the incorrect data with valid characters (e.g. zeros). If barcode size specifications are faulty, a gray area is printed instead of the barcode.	On
 Width ASCII dump	Width of the printing area in the ASCII Dump test function ▷ "5.7" on page 32. With the <code>Automatic</code> setting, the printout of the control sequences arriving at the printer occurs over the maximum printing width. The printing area width can be reduced down to 50 mm.	Automatic
 ZPL	Setting of the label parameters for ZPL data. Access only when at least one interface is set to operate ZPL data..	
 > Printing width	Setting the print width	100,0 mm
 > Label length	Setting the label length	150,0 mm

Table 5 Parameters of the menu Setup > Print param.

4.1.4  Interfaces

- ▶ Start Offline menu.
- ▶ Select Setup > Interfaces.

Parameter	Meaning	Default
 Network	Configuration parameters of the network interfaces Additional configuration parameters for the network interfaces can be accessed via the web interface ▷ "Setup Tab" on page 20.	
 > Ethernet	Configuration of the Ethernet interface	
 >> DHCP	Method of issuing IP address On: Dynamic issuing of IP address by the DHCP server Off: Direct issuing of the IP address by the operator	On
 >> IP	IP address of the label printer. Only valid with DHCP = Off.	-
 >> Mask	Subnet mask (classification and address range) of the local network. Only valid with DHCP = Off.	-
 >> Gateway	Connection address between the local network and other networks. The IP address of the connecting computer (router) on the network is used for this. The address of the router can also be issued via DHCP.	Off
 > WLAN	Configuration of the optional WLAN interface * Configuration only with WLAN interface connected	
 >> Access-Point	Selection of the Access Point to setting up the WLAN connection.	-
 >> DHCP	▷ Ethernet > DHCP	On
 >> IP	▷ Ethernet > IP	-
 >> Mask	▷ Ethernet > Mask	-
 >> Gateway	▷ Ethernet > Gateway	On
 > Network error	Printer switches to Error mode when problems with the network connection occur.	Off
 Default storage	Definition of the default storage, which can be operated by the control panel USB Memory : USB flash drive at USB master interface IFFS : Internal Flash File System.	USB Memory
 Character set	Selection of the character set table for adaptation to the computer system used. Switching the character set via software is not possible. Characters not available in the selected character set can be accessed using the Unicode table.	UTF-8
 Interpreter	Menu for choosing between the programming languages JScript and ZPL individually for the respective interfaces  Access only with service key inserted	JScript

Table 6 Parameters of the menu Setup > Interfaces

4.1.5 Status Line

Select the parameters (widgets) to be displayed in Ready mode.

- ▶ Start Offline menu.
- ▶ Select Setup > Status line.
- ▶ Activate the desired widgets.



Notice!

Because of the limited width of the display it is not possible to display all widgets simultaneously.

Widget	Meaning	Default
 Clock	Displays the current time.	On
 Date sheet	Displays the current calendar day.	On
 Date/time digital	Digital display of current date and time	Off
 Temperature	Displays the current printhead temperature.	Off
 Ribbon supply	Displays the current ribbon supply in the form of a horizontal bar.	Off
 Cutter	Displays a cutter connected	On
 Ethernet Status	Displays the Ethernet status	Off
 WLAN	Displays the WLAN status - grey symbol if WLAN adapter is installed - black symbol if WLAN adapter is connected to an Access Point	Off
 Bluetooth	Displays the Bluetooth status - grey symbol if Bluetooth adapter is installed - black symbol if Bluetooth connection is active (paired, serial port open)	Off
 Data transfer	Displays the current data transfer in the form of a falling drop.	On

Table 7 Parameters of the menu Setup > Status line

4.1.6 Security

By activating a PIN, the Setup menu, certain storage device functions and the firmware update can be protected from unauthorized access.

The protected menu items are then only accessible after the PIN is entered.

- ▶ Start Offline menu.
- ▶ Select Setup > Security.

Parameter	Meaning	Default
 Security	Status of the PIN activation	Off
 PIN	Setting of the PIN	0000

Table 8 Parameters of the menu Setup > Security

4.2 Configuration via the Web Interface

The parameters accessible via the control panel can also be set via the web interface contained in the firmware of the printer. In addition, other parameters for the Ethernet and WLAN interfaces are accessible there.

The printer web interface can be accessed with a browser (e.g. Microsoft Internet Explorer, Mozilla Firefox) with JavaScript activated via the Ethernet interface or the optional WLAN interface.

4.2.1 Calling Up the Web Interface



Attention!

Whenever settings are changed via the web interface you are requested to enter the user name "admin" and a password. The default value of the password is also "admin". The password can be changed via the web interface (▷ "Setup Tab" on page 20).

- ▶ Start the browser.
- ▶ Call the web interface by entering the IP address via HTTP (e.g. `http://192.168.100.208`).
The "Status" tab is open on the home screen.

4.2.2 Description of the Web Interface

The web interface contains the following tabs:

- Status: general status description ▷ "Status tab" on page 19.
- Setup: configuration parameter settings ▷ "Setup tab" on page 20.
- Interpreters: Interface setting to the interpretation of JScript or ZPL data ▷ "Interfaces tab" on page 46.
- Notifications: Activation of sounds and status or error messages via SNMP or e-mail
▷ "Notifications tab" on page 23.
- Devices: list of the hardware and optional components ▷ "Devices tab" on page 24.
- Fonts: overview of the available fonts ▷ "Fonts tab" on page 24.

Status tab

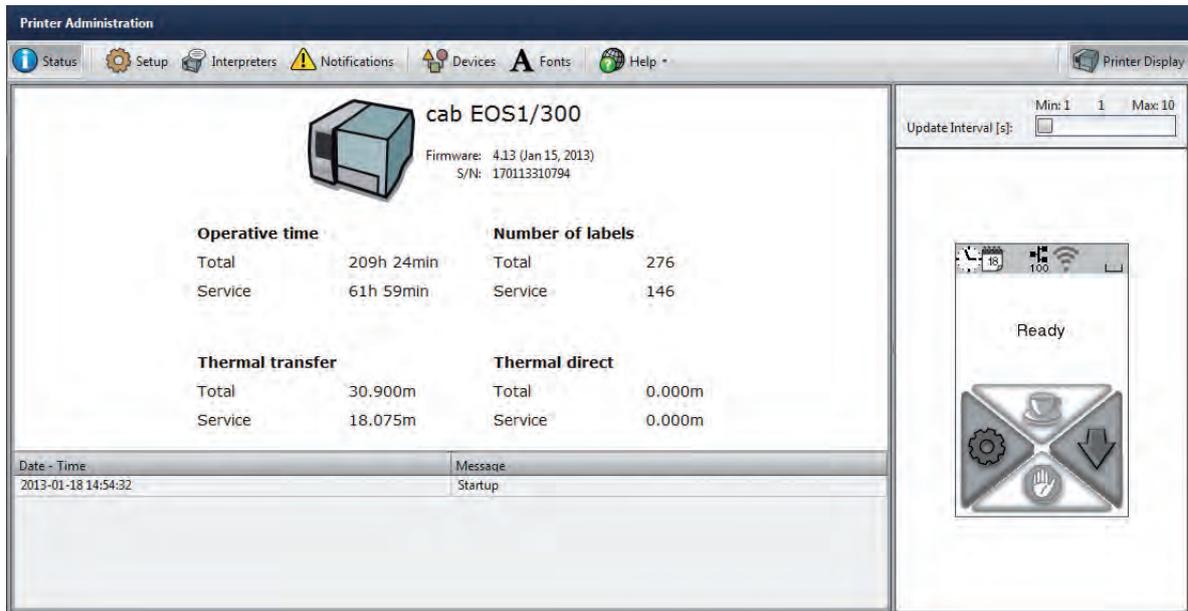


Figure 5 "Status" tab on the printer web interface

The following information is contained in the left top section of the "Status" tab:

- Printer type
- Firmware version
- Serial number of the PCB CPU
- Operative time of the printer
- Number of labels printed since commissioning
- Previously printed paper length with thermal transfer printing
- Previously printed paper length with thermal direct printing

A list of the events which have occurred since the printer was switched on is to be found in the left bottom section of the tab.

The right section of the tab shows the current printer display information.



Notice!

By clicking the buttons the printer can be operated in the same manner as by using the touchscreen on the device.

When the printer display is selected by mouse click, it is possible to use the computer keyboard in the same manner like an External Keyboard (▷ "10.3" on page 46) e.g. for entering variable input data.

Setup tab

On the "Setup" tab all the configuration parameters can be set which are also accessible via the control panel in the Setup menu. In addition, other parameters for the Ethernet interface or the WLAN interface can be set (see below).

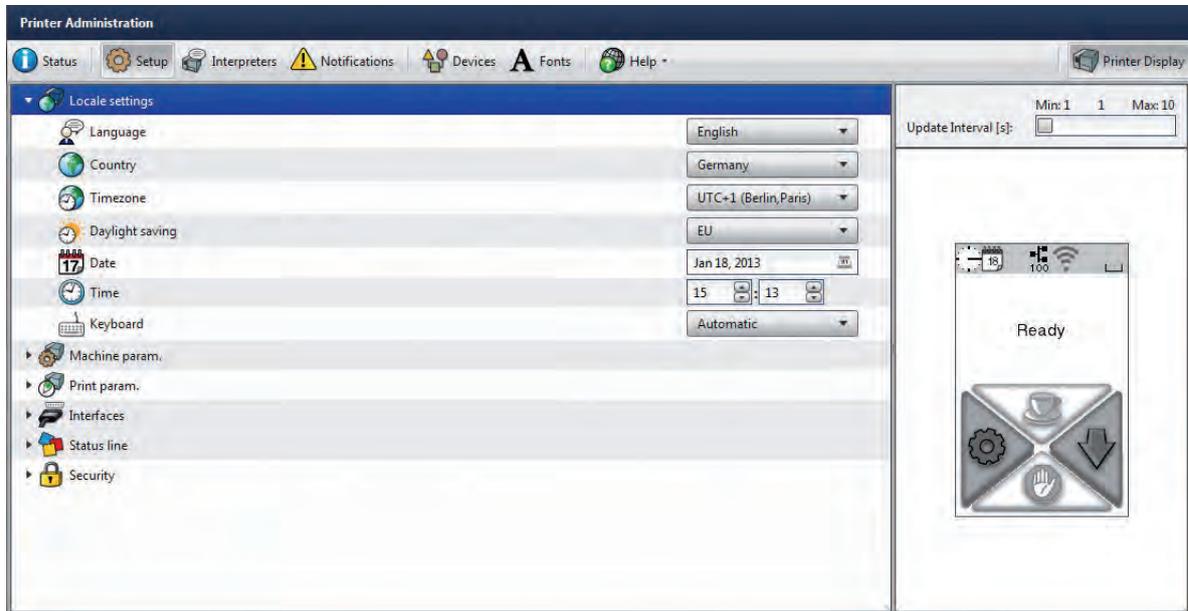


Figure 6 "Setup" tab on the printer web interface

To change a parameter:

1. Locate parameter in the tree structure.
2. Set the value of the parameter at the right end of the concerning line.
A prompt to enter user name and password appears ▷ page 21.
3. Enter user name and password and click **OK**.

The following parameters for the Ethernet or WLAN interface can only be accessed via the web interface:

Parameter	Meaning	Default
 Hostname	Printer name for identification in the network	generated from OEM name and the last six numbers of the MAC address
 Raw-IP-Port	Service for printing on the network ▷ "2.1.1" on page 6. ▶ Select a predefined port address.	9100
 LPD	Activation of the network printing service LPD ▷ "2.1.1" on page 6: ▶ Set parameter to "On". ▶ Typically activate the queue name "lp". Several print spoolers work without queue name.	Off
 LPD queue name	Activation of the LPD queue name	lp
 SNMP	Data exchange between printer and management station via SNMP (Simple Network Management Protocol). To activate: ▶ Set parameter to "On". ▶ Assign the "Community" parameter the value "public".	Off
 SOAP	Activation of the protocol SOAP (Simple Object Access Protocol)	Off
 Time service	Activation of a service to synchronize date and time of the printer.	NTP
 Time server	IP address of the time server	Off

Table 9 Additional network parameter

The following passwords can be set in the Setup tab :

Parameter	Meaning	Default
 PIN	Password to protect certain parameters and functions accessible by the control panel.	0000
 Web interface	Password for parameter setting via the web interface ▶ Logon as admin	admin
 FTP print	Password for FTP printing ▶ Logon as ftpprint	print
 FTP card	Password for FTP access to storage devices (USB stick, IFFS) ▶ Logon as ftpcard	card
 FTP admin	Password for FTP firmware update ▶ Logon as ftpadmin	admin

Table 10 Passwords

Interpreters tab

On the "Interpreters" tab the interfaces can individually be set to the interpretation of JScript or ZPL data.

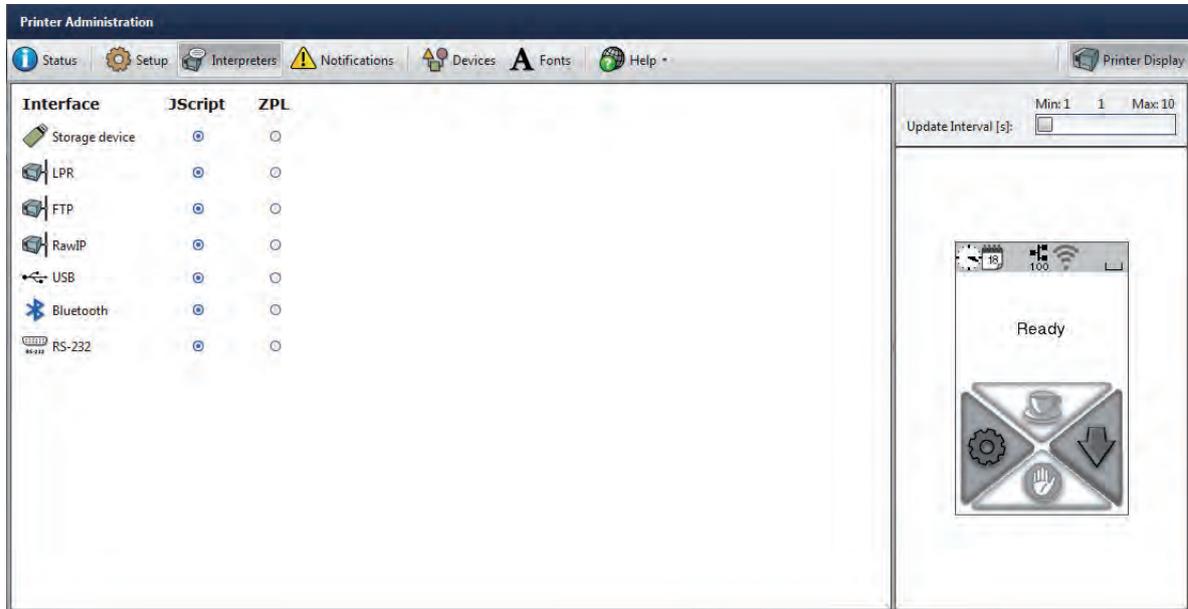


Figure 7 "Interpreters" tab on the printer web interface

To change a parameter:

- Click the desired selection button.

Notifications tab

The "Notifications" tab allows to send status and error messages automatically to a SNMP manager or via e-mail to selected addresses via the Ethernet interface or WLAN. Furthermore sounds can be assigned to the several messages.

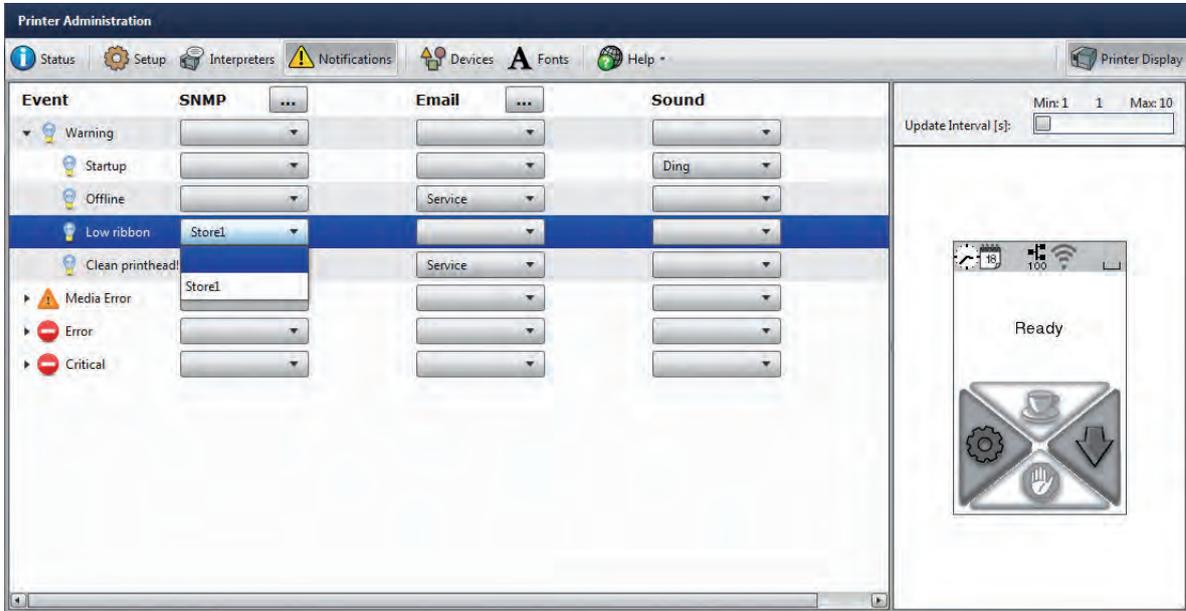


Figure 8 "Notifications" tab on the printer web interface

To change settings:

1. If necessary expand the tree structure.
2. Locate and click the message in the tree structure.
3. Select management station, e-mail address or sound.
4. If the selection at SNMP or e-mail is empty, click the  button next to the concerning title and define the SNMP sinks or e-mail addresses.

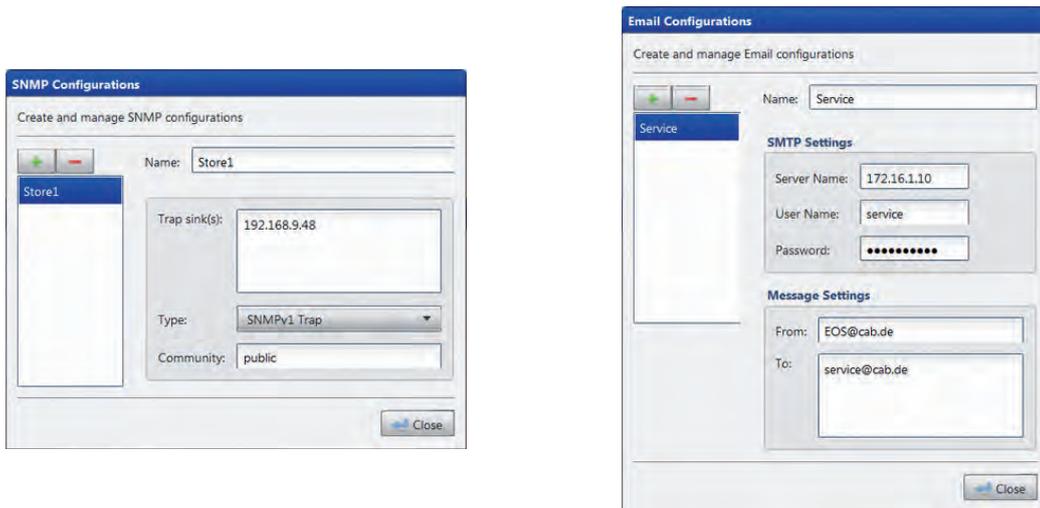


Figure 9 Dialog boxes for SNMP and e-mail configuration

Devices tab

The "Devices" tab provides an overview of the most important hardware components installed in the printer and the optional devices connected.

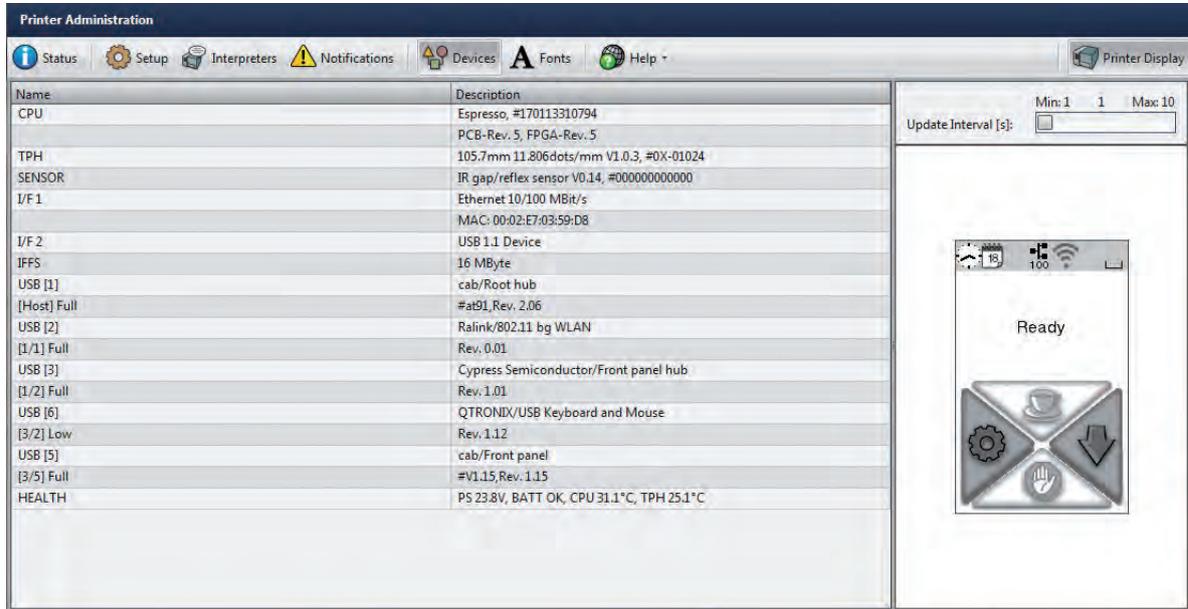


Figure 10 "Devices" tab on the web interface

The contents of the display correspond with those of the `Device list` ▷ "Table 14" on page 30.

Fonts tab

The most important parameters of the fonts available in the printer are listed on the "Fonts" tab. The table contains both the original fonts in the printer and other fonts loaded into the printer.

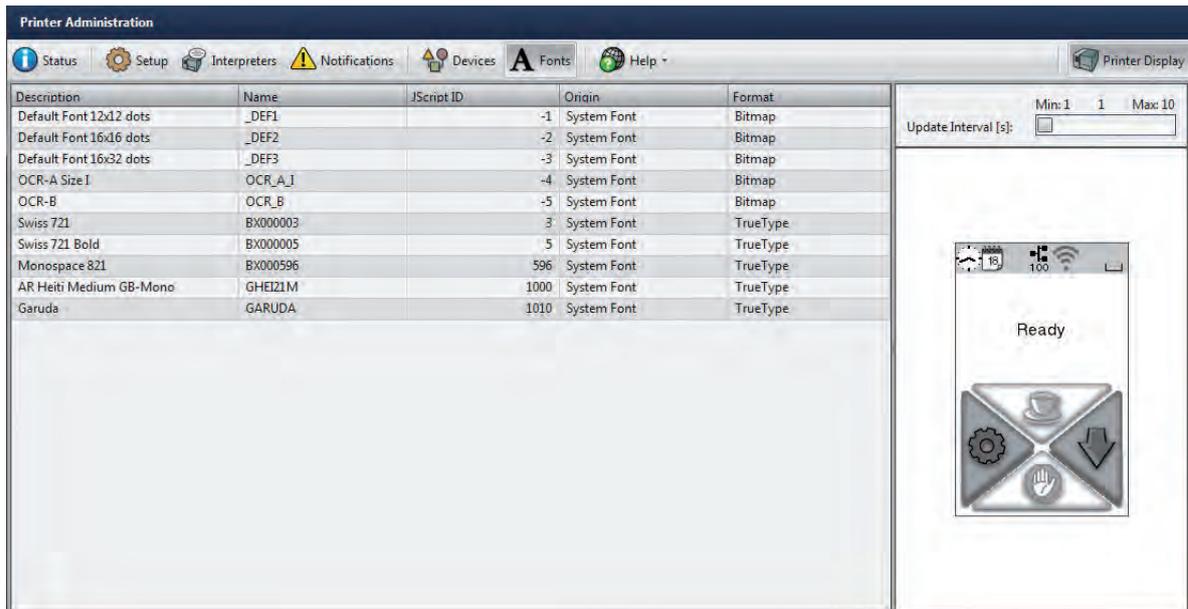


Figure 11 "Fonts" tab on the web interface

The parameters correspond to those in the `Font list` ▷ "Table 13" on page 29

Help menu

Independent from the chosen tab some help functions can be selected :

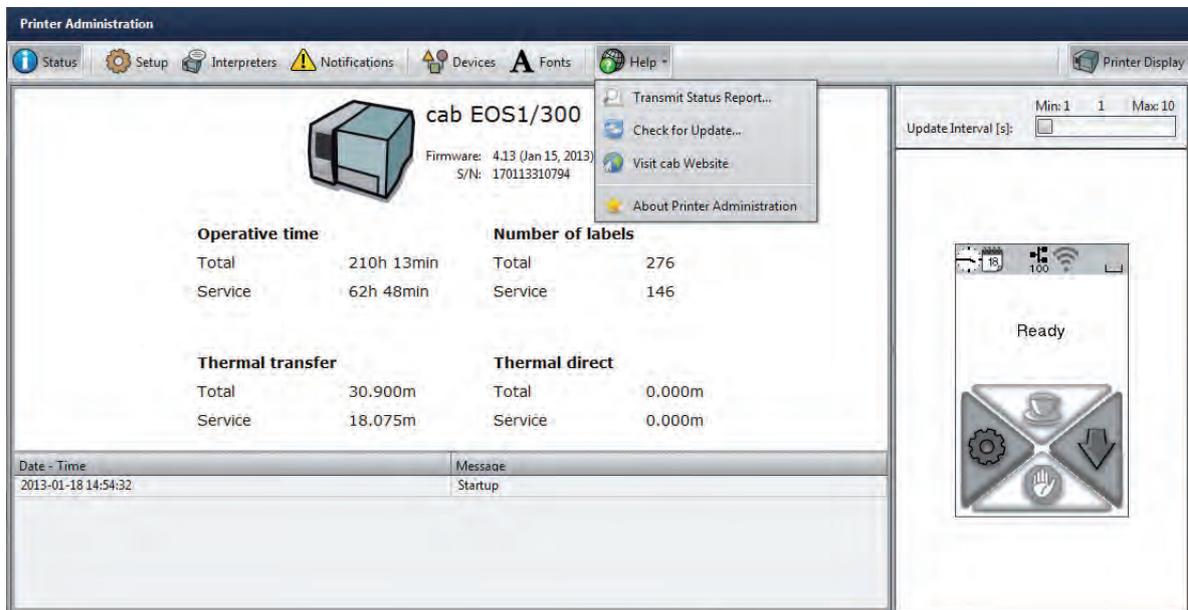
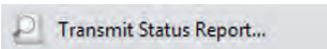
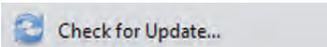


Figure 12 "Help" menu on the web interface

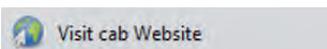


Transmission of a printer status report to the service/support department.

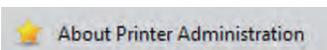
- Send the status report after request of the service/support department only.



Check of the firmware version and offer for update.



Visit the cab-Website.



Information about the version and the latest alterations of the web interface.

5.1 Overview

The printer is equipped with different test functions providing information on:

- the most important configuration parameters
- the fonts available in the printer
- important hardware components and connected peripheral devices
- the print image quality and state of the thermal printhead
- the function of label detection in conjunction with the optical properties of the label medium
- the label data sent from the computer or read out from the storage device

5.2 Short Status

The `Short status` provides an overview of important status information in the display of the printer.

- ▶ Start `Offline` menu.
- ▶ Select `Short status`.
- ▶ Exit the `Short status` menu with `Close`.

The following parameters are displayed in the `Short status` menu:

Line	Meaning	Example
1	Printer type	EOS1/300
2	Version number and creation date of the printer operating system (firmware)	Firmware V4.13 Jan 15 2013
3	Serial number of the PCB CPU	S/N 170113310794
4	Operative time and number of printed labels	Hours/no. of labels 178h/2444
5	Previously printed paper lengths with thermal direct printing / thermal transfer printing	Thermal/Transfer 96,77m/4,03m
6	IPv4 address of the printer when connected to a network via Ethernet	eth0 IPv4 192.168.9.48
7	IPv6 address of the printer when connected to a network via Ethernet	eth0 IPv6 fe80::202:e7ff:fe03:59d8
8	MAC address of the network adapter on the PCB CPU	eth0 MAC 00:02:e7:03:59:d8
9	IPv4 address of the printer when connected to a network via WLAN	wlan0 IPv4 10.20.2.200
10	IPv6 address of the printer when connected to a network via WLAN	wlan0 IPv6 fe80::210:60ff:fe31:7c4
11	MAC address of the WLAN adapter	wlan0 MAC 00:10:60:31:07:c4
12	Resolution, number of dots and revision of the printhead	TPH 300dpi, 1248dots Rev. 1.0.3
13	Version number of the label sensor firmware	Label Sensor Rev 0.14
14	Revision of PCB CPU and the FPGA	PCB Rev. 5 FPGA Rev. 5
15	Copyright	

Table 11 Content of the `Short status`

5.3  Status Print

The `Status print` function prints a test image containing information on the configuration and status of the printer. The printout occurs using the heat level and print speed specified in the `Setup > Print param.` menu.



Notice!

The printout occurs without taking the label gaps into consideration. This is why endless media are most suitable for this purpose.

- ▶ Insert printable medium (labels, endless paper) which extends across the entire printing width.
- ▶ If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
- ▶ Start Offline menu.
- ▶ Select `Test > Status print`.

The printout can be cancelled with .

Status print

Thu Jun 13 15:10:05 2013
EOS1/300
Firmware V4.14 (Jun 07, 2013) - #170113310794

 Local settings	
Language	English
Country	Germany
Timezone	UTC+1 (Berlin,Paris)
Daylight saving	EU
Date	13.06.2013
Time	15:10:05
Keyboard	Automatic
 Machine param.	
Printhead pos. X	0,0 mm
Printhead pos. Y	0,0 mm
Tear-off pos.	0,0 mm
<i>Demand sensor</i>	
<i>Peel position</i>	0,0 mm
<i>Backfeed delay</i>	250 ms
<i>Liner tension</i>	0 %
<i>Cutter</i>	
<i>Cut position</i>	0,0 mm
<i>Cutting depth</i>	0
Backfeed position	0,0 mm
Brightn. LCD	8
Contrast LCD	4
Volume Speaker	1
Time Powersave	5 min
Cleaning interval	Off
Debug mode	Off
 Print param.	
Heat level	0
Print speed	30 mm/s
Transfer print	On
Warn level ribbon	32 mm
Label sensor	Gap Sensor
Extrapolate pos.	Off
Tear-off mode	On
Single-Print mode	Off
Backfeed	smart
Error-Reprint	On
Reprint option	On
Protocol error	On
Barcode error	On
Width ASCII dump	Automatic
 Interfaces	
Network	
Ethernet	
DHCP	Off
IP-Adresse	192.168.9.48
Maske	255.255.255.0
Gateway	Off

 WLAN	
Access-Point	-
DHCP	Off
IP-Adresse	-
Maske	255.255.255.0
Gateway	Aus
Hostname	cab-0359d8
RawIP-Port	9100
LPD	On
LPD queue name	lp
Time service	NTP
SNMP	Off
SOAP	Off
Time server	-
Network error	Off
Default storage	USB Memory
Character set	Windows 1252
Interpreter	
Storage	JScript
LPR	JScript
FTP	JScript
RawIP	JScript
USB	JScript
Bluetooth	JScript
 Status line	
Clock	On
Date sheet	On
Date/time digital	Off
Temperature	Off
Ribbon supply	Off
Cutter	Off
Ethernet status	On
WLAN	Off
Bluetooth	Off
Data transfer	On
 Security	
Security	Off
 Printer info	
Operative time	
Total	498h 01min
Service	28h 12min
Number of labels	
Total	1451
Service	267
Thermal transfer	
Total	189,204m
Service	24,330m
Thermal direct	
Total	10,427m
Service	0,000m

Figure 13 Status print
Parameters marked *italic* are only printed when the printer is equipped with the respective optional assembly or when the service key is inserted

The `Status print` contains the following information :

Symbol	Information
	<ul style="list-style-type: none"> • Date and time of the printout • Device type • Version and creation date of the firmware • Serial number of the PCB CPU
	Current values of selected local settings ▷ "4.1.1" on page 11.
	Current values of selected machine parameters ▷ "4.1.2" on page 12.
	Current values of selected print parameters ▷ "4.1.3" on page 14.
	Current values of selected interface parameters ▷ "4.1.4" on page 16.
	Status of PIN activation ▷ "4.1.6" on page 17.
	<ul style="list-style-type: none"> • Operative time • Number of labels printed • Printed length with thermal transfer printing and thermal direct printing

Table 12 Information in `Status print`

5.4 **A** Font List

The `Font list` function prints the most important parameters of the fonts available in the printer in tabular form. The table contains both the original fonts in the printer and other fonts loaded into the printer. The printout occurs using the heat level and print speed specified in the `Setup > Print param.` menu.



Notice!

The printout occurs without taking the label gaps into consideration. This is why endless media are most suitable for this purpose.

- ▶ Insert printable medium (labels, endless paper) which extends across the entire printing width.
- ▶ If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
- ▶ Start Offline menu.
- ▶ Select `Test > Font list`.

The printout can be cancelled with .

Font list			
Mon Jan 21 07:43:56 2013			
EOS1/300			
Firmware V4.13 (Jan 15, 2013) - #170113310794			
Nr.	Name	Type	Description
-1	_DEF1	Bitmap	Default Font 12x12 dots
-2	_DEF2	Bitmap	Default Font 16x16 dots
-3	_DEF3	Bitmap	Default Font 16x32 dots
-4	OCR_A_I	Bitmap	OCR-A Size I
-5	OCR_B	Bitmap	OCR-B
3	BX000003	TrueType	Swiss 721
5	BX000005	TrueType	Swiss 721 Bold
596	BX000596	TrueType	Monospace 821
1000	GHEI21M	TrueType	AR Heiti Medium GB-Mono
1010	GARUDA	TrueType	Garuda

Figure 14 Font list

Column	Meaning
No.	ID number of the font required for programming (command T).
Name	Name with which the font is saved internally.
Type	Type of font generation. It provides information on the variability of the font and is important when programming (command T).
Description	Explanations of the font: size, font family. The printout occurs in the appropriate font.

Table 13 Parameters of the `Font list`

5.5  Device List

The Device list function prints out the most important information on hardware components of the printer and connected devices. The printout occurs using the heat level and print speed specified in the Setup > Print param. menu.



Notice!

The printout occurs without taking the label gaps into consideration. This is why endless media are most suitable for this purpose.

- ▶ Insert printable medium (labels, endless paper) which extends across the entire printing width.
- ▶ If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
- ▶ Start Offline menu.
- ▶ Select Test > Device list.

The printout can be cancelled with .

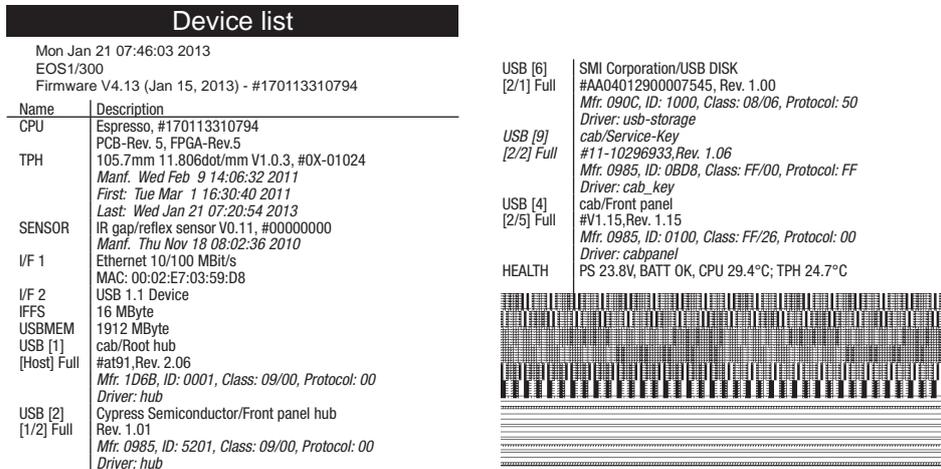


Figure 15 Device list
Parameters marked *italic* are only printed when the service key is inserted

Name	Information
CPU	Type and serial number of the PCB CPU Revision of PCB CPU and FPGA
TPH	Print width and resolution of the installed thermal printhead
SENSOR	Type, firmware version and serial number of the label sensor
IF [x]	Type of interfaces installed x : Number of interface
IFFS	Size of the Internal Flash File System
USBMEM	Size and type of an installed external storage device
USB [a] [b/c] Speed	Type and revision of installed USB devices a : number of USB device b : number of USB device to which device a is connected c : number of interface of device b to which device a is connected Speed : data transfer speed (low, full, high) The following properties are only displayed when the service key is inserted: Mfr. : Manufacturer ID. This identifies the manufacturer of the USB device Class : Code for the USB device class Protocol : Code for the type of communication with the USB device Phase : Internal value for troubleshooting
HEALTH	Printhead voltage, charge state of the lithium battery on the PCB CPU, temperature of CPU and printhead
Line pattern	Lines differing in thickness at various distances. They are used to evaluate the print quality.

Table 14 Parameters of the Device list

5.6  WiFi Status

* **Access only when a WLAN adapter is installed!**

The `WiFi status` function prints out a list the most important parameters of the accessible Wireless Access Points. The printout occurs using the heat level and print speed specified in the `Setup > Print param.` menu.



Notice!

The printout occurs without taking the label gaps into consideration. This is why endless media are most suitable for this purpose.

- ▶ Insert printable medium (labels, endless paper) which extends across the entire printing width.
- ▶ If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
- ▶ Start Offline menu.
- ▶ Select `Test > WiFi status`.

The printout can be cancelled with .

WiFi status			
Mon Jan 21 07:49:49 2013			
EOS1/300			
Firmware V4.13 (Jan 15, 2013) - #170113310794			
Channel	Name/BSS ID	Signal level	Encryption
1	default	●●●●	WPA-PSK-TKIP
	00:24:b2:36:98:60		
1	cab-firma	●●●●	WPA-PSK-TKIP
	00:24:b2:36:98:61		
1	cab-gast	●●●●	WPA-PSK-TKIP
	00:24:b2:36:98:62		
11	default	●●●●	WPA-PSK-TKIP
	00:24:b2:36:98:60		
11	cab-firma	●●●●	WPA-PSK-TKIP
	00:24:b2:36:98:61		
11	cab-gast	●●●●	WPA-PSK-TKIP
	00:24:b2:36:98:62		

Figure 16 WiFi status

The parameters have the following meaning :

Column	Meaning
Channel	Channel; frequency range of the Access Point
Name/BSS ID	Name of the wireless LAN MAC address of the Access Points
Signal level	Scale of the WiFi signal strength
Encryption	Type of data encryption

Table 15 Parameters of the `WiFi status`

5.7 ASCII Dump Mode

```

01000
00001
01010

```

ASCII Dump Mode offers the option of checking incoming control sequences at an interface. The commands are printed out as text. In addition, a corresponding error message is printed out immediately after an error occurs.

The printout occurs using the heat level and print speed specified in the `Setup > Print param.` menu.



Notice!

The printout occurs without taking the label gaps into consideration and without transfer ribbon checking. This is why endless media are most suitable for this purpose.

If only media (labels, endless paper) is available which does not cover the entire printing width, the width of the printout can continuously be reduced down to 50 mm with the `width ASCII dump` parameter ▷ "4.1.3" on page 15.



Notice!

In case of questions about programming, keep a printout of your label file which was created in ASCII Dump Mode handy. The printout can be transmitted clearly via fax.

- ▶ Load printable medium (labels, endless paper).
- ▶ If the printout is to occur using thermal transfer printing, insert transfer ribbon.
- ▶ If the printable medium and/or the transfer ribbon does not cover the entire printing width, reduce the width of the printout accordingly with the `width ASCII dump` parameter ▷ "4.1.3" on page 15.
- ▶ Start Offline menu.
- ▶ Select `Test > ASCII Dump Mode`.
- ▶ Send print jobs.
- ▶ Press  to cancel the printout or switch to the Ready mode.

Example:

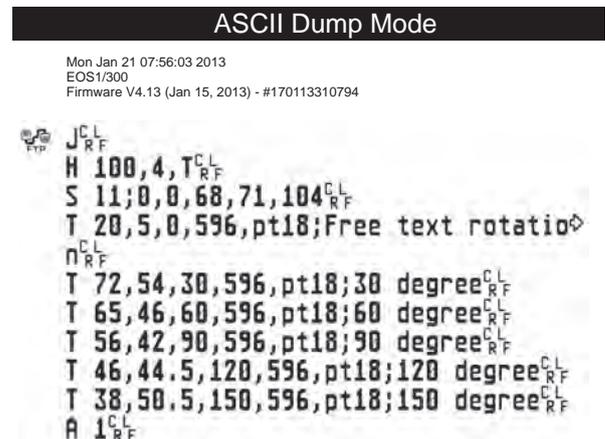
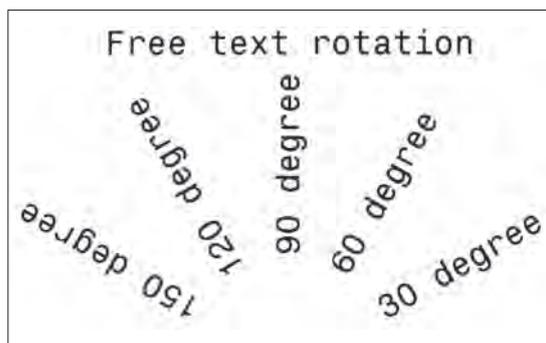


Figure 17 Example label printed normally (left) and in ASCII Dump Mode (right)

The control characters (ASCII-Code 00...31) are presented in stylized design.

e.g. : L_F : Code 10 (0A) - line feed
 C_R : Code 13 (0D) - carriage return

5.8  Label Profile

The Label profile function carries out a longer label advance. It saves the values measured by the label sensor here and then prints them out in a diagram. The printout is used to check label detection in conjunction with the optical properties of the label medium. The printout occurs using the heat level and print speed specified in the Setup > Print param. menu.



Notice!

The printout of the diagram occurs without taking the label gaps into consideration. This is why endless media are most suitable for the printout.

- ▶ Select the label sensor to be tested in the menu Setup > Print param. ▷ "4.1.3" on page 14.
- ▶ Load the label medium to be tested into the printer.
- ▶ Start Offline menu.
- ▶ Select Test > Label profile.
The printer performs a longer label advance. The label sensor measures the transparency/reflection capacity of the label material here. The message Insert appears in the display once the advance is complete.
- ▶ Insert printable medium (labels, endless paper) which extends across the entire printing width.
- ▶ If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
- ▶ Start the diagram printout with Continue.

The printout can be cancelled with .

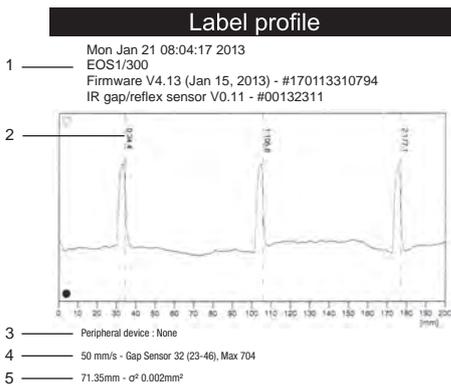


Figure 18 Label profile

No.	Information
1	Date and time of the printout Device type Version and creation date of the firmware Serial number of the PCB CPU Firmware version and serial number of the label sensor
2	Coordinate in the direction of paper flow at which the label start was detected
3	Type of peripheral device connected
4	Print speed, method of label detection (Gap sensor / Bottom-reflect sensor) and service information of label adjustment
5	Average value and variation of label distances

Table 16 Information in Label profile

5.9 Event Log



Access only with service key inserted!

The label printer saves the following events in the `Event log`:

- Hardware fault
- Printhead replacement
- Firmware updates
- Resetting of the service counters

The printout occurs using the heat level and print speed specified in the `Setup > Print param.` menu.



Notice!

The printout occurs without taking the label gaps into consideration. This is why endless media are most suitable for this purpose.

- ▶ Insert service key into a USB master interface.
- ▶ Insert printable medium (labels, endless paper) which extends across the entire printing width.
- ▶ If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
- ▶ Start `Offline` menu.
- ▶ Select `Test > Event log`.

Event log	
Mon Jan 21 08:13:57 2013	
EOS1/300	
Firmware V4.13 (Jan 15, 2013) - #170113310794	
Date	Description
23.11.11 11:14	Clear service counters
30.11.11 10:42	Firmware update -> V4.04 (0000)
28.03.12 08:08	Firmware update -> V4.07 (0000)
25.08.12 11:12	New printhead, 8 dots/mm, #04-007
06.09.12 14:39	New printhead, 12 dots/mm, #0X-01024
03.01.13 13:01	Clear service counters
15.01.13 08:40	Firmware update -> V4.13 (0000)

Figure 19 Event log

6.1 Firmware Update from Storage Device



Notice!

The firmware file can be obtained from the internet.



*** Access only with storage device defined as Default storage !**

1. Select `Setup > Interfaces > Default Storage > USB Memory` ▷ "4.1.4" on page 16.
2. Format USB flash drive in the printer ▷ "9.5.3" on page 44.
The directories "fonts", "images", "labels" and "misc" are created on the storage device here.
3. Copy the firmware file to the "misc" directory of the storage device. This can be done on a computer or via FTP on the printer.
4. Insert the prepared storage device into the printer.
5. Start `Offline` menu.
6. Select `Service`.
If the menu is protected via a PIN a prompt appears in the display. Enter the code number and confirm with `OK`.
7. Select `Firmware fr. storage device`.
The names of the firmware files found on the storage device are shown in the display.
8. Select the desired file and confirm with .
The selected firmware file is copied. A progress indicator is displayed while the firmware is being copied. After completion the printer will be re-started.



Notice!

The firmware update also can be done via `FTP printer management` ▷ "8.4" on page 41.

6.2 Load Settings



*** Access only with storage device defined as Default storage !**

A printer configuration previously saved to a storage device (USB flash drive, Internal Flash File System) can be loaded with the `Load settings` function.

1. If the printer configuration was saved to an USB flash drive, select `USB Memory as Default Storage` and insert USB flash drive into an USB master interface.
If the printer configuration was saved on the Internal Flash File System, select `IFFS as Default Storage`.
2. Start `Offline` menu.
3. Select `Service`.
If the menu is protected via a PIN a prompt appears in the display. Enter the code number and confirm with `OK`.
4. Select `Load settings`.
5. Select the desired file.
6. Confirm with .
Loading of the configuration data starts. Do not remove the USB flash drive until the loading procedure is complete. The printer returns to the `Service` menu.

If an error occurs during the loading procedure, an error message appears in the display. Restart the loading procedure in this case. If an error occurs again, the configuration parameters must be entered via the control panel.

6.3 Save Settings

*** Access only with storage device defined as Default storage !**

With the `Save settings` function the printer configuration can be saved to a storage device (USB flash drive, Internal Flash File System). The configuration will be saved as XML file in the folder `\MISC` of the storage device. The current date is used as file name `YYYYMMDD.XML` (e.g. 20130104.XML for a file saved on 01-04-2013).

1. If the printer configuration should be saved to an USB flash drive, select `USB Memory as Default Storage` and insert USB flash drive into a USB master interface.
If the printer configuration should be saved on the Internal Flash File System, select `IFFS as Default Storage`.
 2. Start `Offline` menu.
 3. Select `Service`.
If the menu is protected via a PIN a prompt appears in the display. Enter the code number and confirm with `OK`.
 4. Select `Save settings`.
 5. Saving of the configuration data starts. When the entire saving procedure is complete the name of the created file appears in the display.
 6. Confirm with .
- The printer returns to the `Service` menu.

An error message appearing during the saving procedure may be caused by an unreadable medium (e.g. unknown medium, unformatted USB flash drive) ▷ "9.5.3" on page 44.

6.4 Default Settings



Access only with service key inserted!

With the `Default settings` function all setup parameters excepting the passwords ▷ page 21 can be reset to the default values.

1. Insert service key into an USB master interface.
 2. Start `Offline` menu.
 3. Select the `Service` menu.
 4. Select `Default setting`.
The display shows `Set to factory defaults?`.
 5. Confirm with .
- The setup parameters will be reset and printer returns to the `Service` menu.

6.5  **Reset Service Counter**

 **Access only with service key inserted!**

The printer has total and service counters.

- Total counter: The total counter contains the values for the entire service life of the printer up to now. The values of the total counter are displayed in the `Short status` and in the `Status print`.
- Service counter: The service counter can be reset after more substantial maintenance or repair work with the service key inserted. Here, it provides information on the printing output since the last reset. The values of the service counter are displayed in the `Status print`.

The following data is recorded in both counters:

Data	Description
Operative time	Printer switch-on time
Number of labels	Number of labels printed
Transfer printing	Length of medium printed with transfer printing
Thermal printing	Length of medium printed with thermal direct printing

Table 17 Total and service counter data

1. Insert service key into an USB master interface.
 2. Start Offline menu.
 3. Select `Service > Reset service counter`.
The display shows `Reset service counter?`.
 4. Select .
- The data recorded by the service counter is set to the value 0.

The status print can be used to check whether the values were reset.

6.6  **Reset Passwords**

 **Access only with service key inserted!**

The function `Reset passwords` allows to reset all passwords for the access to the web interface and the FTP functions to the default values.

1. Insert service key into an USB master interface.
 2. Start Offline menu.
 3. Select `Service > Reset passwords`.
The display shows `Reset passwords?`.
 4. Confirm with .
- The printer returns to the `Service` menu.

Function	User name	Password
Web interface access	admin	admin
FTP printing	ftpprint	print
FTP access to storage devices	ftpcard	card
FTP firmware update	ftpadmin	admin

Table 18 Default passwords

6.7 Save Log files

* Access only with storage device defined as Default storage !

The function `Save log files` saves a file with the name `export.log` on the storage device. That file contains the printer settings and the executed processes since the last startup. The function supports the firmware programmer in localizing errors.

1. If the log file should be saved to an USB flash drive, select `USB Memory as Default Storage` and insert USB flash drive into a USB master interface.
If the log file should be saved on the Internal Flash File System, select `IFFS as Default Storage`.
2. Start `Offline menu`.
3. Select `Service`.
If the menu is protected via a PIN a prompt appears in the display. Enter the code number and confirm with `OK`.
4. Select `Save log files`.
The file `export.log` will be saved in the root of the storage device.
5. Confirm with .
The printer returns to the `Service` menu.

6.8 Printer Model



Access only with service key inserted!

The device designation can be changed with the `Printer model` function.

1. Start `Offline menu`.
2. Select `Service > Printer model`.
3. Select the desired model.
The printer returns to the `Service` menu.

Following all test printout, the short status and the web interface show the chosen printer model.

PPP™ stands for „Pay-per-print“. cab established for distributors a secure internet portal, which can be used to transfer data for:

- pay-per-print leasing/rental services
- online-purchase of printer features (like database connector)
- online-purchase of services (e.g. unlocking printer PIN)

Typically for each transaction an encrypted data packet (voucher) of the **.ppp** type is created, which can be loaded to the printer with several methods (▷ "7.2" on page 39).

7.1 Short status PPP

The Short status PPP menu provides an overview of important PPP status information in the display of the printer.

- ▶ Start Offline menu.
- ▶ Select `PPP > Short status PPP`.
- ▶ Exit the `Short status PPP` menu with `Close`.

7.2 Load PPP Voucher

7.2.1 Load PPP Voucher from USB Memory

1. Connect an USB flash drive, which was formatted in printer, to a computer.
2. Copy the PPP voucher to the "misc" directory.
3. Set the parameter `Default storage` to `USB Memory` (▷ "4.1.4" on page 18).
4. Insert the prepared USB flash drive into the printer.
5. Start Offline menu.
6. Select `PPP™ > Load PPP voucher` menu. A list of the available vouchers will be shown.
7. Select a PPP voucher.
8. Confirm with . The action arranged in the voucher will be executed.

7.2.2 Load PPP Voucher via Interface

A PPP voucher can be handled like a JScript print file.

Therefore a voucher can be copied via interface with several methods e.g. :

- per FTP via Ethernet or optional WLAN interface

Alternatively the vouchers can be loaded using the `cabFirmwareUpdater` ▷ "11" on page 47.

The File Transfer Protocol (FTP) allows to manage and transfer files on the network via the Ethernet or WLAN interface. An FTP program (FTP client) is required which supports the "binary" transfer mode to manage the printer. The printer functions as an FTP server.

FTP printer management is comprised of four functions:

- direct printing via copying JScript files
- management of the storage devices installed in the label printer
- IFFS management
- printer firmware update ▷ "8.4" on page 41

8.1 FTP Logon

To establish an FTP connection, the client must be logged on to the server. The logon type depends on the client. The following information must be specified in any case, however:

- IP address of the label printer
- User name and password

Access to the printer management functions depends on the user name:

Function	User name	Default password
FTP printing, loading PPP vouchers	ftpprint	print
FTP access to storage devices	ftpcard	card
FTP firmware update	ftpadmin	admin

Table 19 Default passwords



Notice!

- ▶ The passwords can be changed in the "Setup" tab of the web interface ▷ page 20.

After logging on the FTP server is accessible in a manner similar to a Windows folder.

8.2 FTP Printing

Label files in cab JScript format (▷ Programming Manual) can be printed directly via FTP connection:

- ▶ Establish a FTP connection with the user name `ftpprint` and the defined password (Default: `print`). An empty folder of the FTP server will be shown.
- ▶ Copy a label file in JScript format to the folder of the FTP server. Printing of the label file is started immediately. The corresponding file is deleted once the print job is complete.
- ▶ Close the FTP connection.

8.3 FTP Access to Storage Devices

FTP connection allows to manage data of a storage device:

- ▶ Establish a FTP connection with the user name `ftpcard` and the defined password (Default: `card`). The content of the storage device will be shown. The files are separated into several subfolders accordingly based on their type.
- ▶ Manage the files as necessary. When copying files to the folder, type-based sorting occurs automatically in the subfolders.
- ▶ Close the FTP connection.

8.4 FTP Firmware Update

FTP allows to carry out a firmware update:

- ▶ Establish a FTP connection with the user name `ftpadmin` and the defined password (Default: `admin`).
An empty folder of the FTP server will be shown.
- ▶ Copy a valid firmware file (e.g. `413_3115.cfw`) to the folder.
The status of the saving procedure is shown by a progress indicator in the display. The printer resets automatically after the update is carried out successfully.
- ▶ Close the FTP connection.

Whether the firmware update was carried out successfully can be checked on the "Status" tab of the web interface.

Label descriptions, graphics, fonts, and database information can be saved for the long-term on memory media.



Notice!

- ▶ **Always create a backup copy of external devices in case of a malfunction.**

9.1 Suitable Storage Devices

External Devices

- USB flash drive at USB master interface.

Internal Devices

- approx. 16 MByte flash memory inside the printer (Internal Flash File System IFFS)

9.2 Installation

* For external storage devices only!

1. Insert USB flash drive into an USB master interface.
2. Start Offline menu.
3. Check if the menu `Storage device` is shown on the display.

If the menu `Storage device` is not shown, the used device is possibly not selected as `Default storage`
▷ 4.1.4 on page 16.



Attention!

Risk of data loss !

- ▶ **Do not remove the storage device while it is being accessed.**

9.3 Directory Structure

On USB flash drives connected to the printer, some folders are automatically generated when uploading files to the flash drive :

Folder name	Contents
..	export.log
fonts	Font files
images	Graphic files
labels	Label description files
misc	Firmware, Setup and TMP files

Table 20 Directory structure of storage devices

9.4 Writing

The storage devices can be written to in several ways. The most functionally secure way is writing to the storage device via a data interface.



Attention!

The device selected as `Default storage` is written to by default. To write to another device specify the path name of the device in the file name (▷ “Programming Manual”).

Example:

With direct programming, the command sequence for saving a label (file XYZ) has the following form:

Ms LBL; XYZ	Command for saving the file XYZ
J	
H 100,0,T	
S l1;0,0,68,71,104	Contents of the file XYZ
T 10,10,0,3,pt15;memory card	
A 1[NOPRINT]	
Ms LBL	End of save command

- After transfer of the command sequence, the file XYZ is saved with the commands from J to A.
- Only one label is printed each time the file XYZ is called up.
- The [NOPRINT] parameter in command A suppresses the printing of a label when the file is saved.
- To print the label a variable number of times, use command A [?].

9.5 Storage Device Functions in the Offline Menu

Accessing the `Storage device` menu is only possible if a storage device is installed and defined as `Default storage` ▷ "4.1.4" on page 16.

9.5.1 Load Label

Labels whose descriptions are saved on the storage device can be printed using the `Load label` function.

1. Start Offline menu.
2. Select `Storage device > Load label`.
The content of the folder "labels" will be shown.
3. Select the desired label.
4. Confirm with .
If a label is selected which was saved with a fixed contents and fixed label quantity, the print job is started immediately.
If additional input on the label description is required, the display requests to enter the variable data.
For label descriptions with a variable label quantity, a prompt to enter the label quantity is displayed.
Enter the label quantity/variable data.
5. Select to start the print job.

9.5.2 Printing Directory

The `Print directory` function creates a list of the files stored on the default storage device.

1. Insert printable medium (labels, endless paper) which extends across the entire printing width.
2. If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
3. Start Offline menu.
4. Select `Storage device > Print directory`.
The directory of the storage device will be printed.

Content of the printout:

- the name of the storage device
- information on the saved files
- the size of the available memory area

9.5.3 Formatting Storage Device

* For external storage devices only!

The `Format` function can be used to delete all data from a storage device. This reformats the storage device. This is why you can also use the `Format` function if the `Unknown card` or `Structural err.` error message was output when using the device.

1. Insert USB flash drive into a USB master interface.
2. Start Offline menu.
3. Select `Storage device > Format`.
If the function is protected via a PIN a prompt appears in the display. Enter the code number and confirm with `OK`.
The display shows `Delete all files`.
4. Confirm with .
The storage device will be formatted.
Do not remove the device from the printer during the deleting procedure.
The printer returns to the `Storage device` menu.

9.5.4 Printing File Content

The label files found on a storage device consist of a sequence of printer commands. These command sequences can be printed in the form of text with the `Print file content` function.

1. Insert printable medium (labels, endless paper) which extends across the entire printing width.
2. If the printout is to occur using thermal transfer printing, insert transfer ribbon with the maximum width.
3. Insert storage device.
4. Start Offline menu.
5. Select `Storage device > Print file content`.
The content of the folder "labels" will be shown.
6. Select the desired label.
7. Confirm with .
A printout in the ASCII dump mode (▷ "5.7" on page 32) will be created.

The printout can be cancelled with .

An external keyboard or a compatible input device (e.g. barcode scanner) can be connected directly to the printer. Using an external keyboard facilitates the entry of variable data while processing print jobs and printing from storage devices.

Input prompts and the data received from the keyboard are shown in the display.

10.1 Connecting External Keyboard

Any HID compatible USB keyboard can be connected to the printer.

- ▶ Insert connection cable of the keyboard into a USB master interface of the printer.

10.2 Keyboard Assignment

- ▶ If necessary set the parameter Setup > Local Settings > Keyboard matching to the used keyboard.



Notice!

- ▶ **If the parameter Keyboard is set to Automatic, the keyboard assignment will be defined by the setting of the parameter Country.**

The following Country settings have special keyboard assignment :

Country	Keyboard
China	USA
South Africa	USA
Taiwan	USA
Mexico	Latin America
Egypt	Arabic

Table 21 Special assignments Country - Keyboard

For the following Keyboard settings can be switched between two assignments by pressing the CTRL key and the SHIFT key:

Keyboard	First assignment	Second assignment
Bulgaria	Cyrillic	Latin
Greece	Greek	Latin
Iran	Persian	Latin
Macedonia	Cyrillic	Latin
Russia	Cyrillic	Latin
Thailand	Thai	Latin
Arabic	Arabic	Latin

Table 22 Keyboard settings with double assignment

10.3 Special Key Functions

General :

[F1]	Executes the Load label storage device function.
[F2]	Prints an additional label from the last print job. Corresponds  .
[F3]	Repeats the last print job with renewed polling of the variable data and polling of the label quantity.
[Shift][F5]	ASCII dump mode
[Shift][F6]	Status print
[F7]	Short status
[F8]	Functions in the same manner as  .
[Enter]	Switches to the offline menu.
[Esc]	Functions in the same manner as  .
[Space]	Functions in the same manner as  . Not for continuing after an error.

Table 23 Special key functions: general

In the offline menu and for entry of variable data:

[Enter]	Confirms the input.
[Esc]	Cancels the input and returns.
[Shift][Entf]	Clears the input line.

Table 24 Special key functions: offline menu and data input

**Attention!**

When using a scanner operated as keyboard emulation ensure that the same character set is set for both the scanner and the printer.

The cabFirmwareUpdater, which can be downloaded free of charge from the cab Website, offers an easy way to transfer firmware and PPP files from the computer to the printer.



Figure 20 cabFirmwareUpdater

With the cabFirmwareUpdater it is possible to start a firmware update or to load a PPP voucher via USB, Ethernet or the optional serial interface :

1. Start the cabFirmwareUpdater.
2. Select the printer model "EOS1, EOS4".
3. Select the interface (Port).
4. Choose "Firmware" or "PPP".
5. Locate the firmware or PPP file and select it.
6. Click "Update".

The selected file will be uploaded to the printer.

If a firmware file was selected, a firmware update will be started automatically.

After the upload of a PPP file the action arranged in the voucher will be executed.

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