Configuration Manual


# Label Printer

# EOS

# Configuration Manual
## for the following products

| Family | Type |
|---|---|
| EOS | EOS1 |
| | EOS4 |

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# 1 Introduction



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.

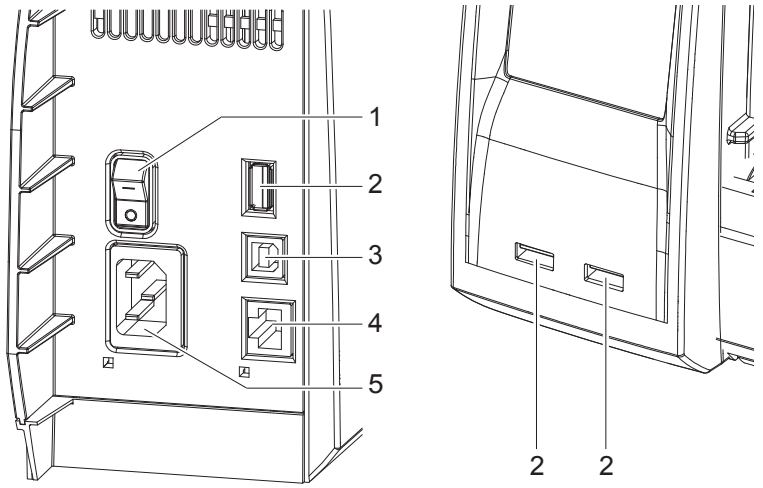
∗ Option (accessories, peripheral equipment, special fittings).

`Time` Information in the display.

# 2 Connecting Label Printer to Computer

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 via optional RS-232 interface adapter connected to an USB master interface (2).
- 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).




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

Fig. 1 Connections

## 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 the operating system Windows XP 32bit / 64bit, Windows Server 2003 32bit / 64bit, Windows Vista 32bit / 64bit, Windows Server 2008 32bit / 64bit, Windows Server 2008 R2 64 bit, Windows 7 32bit / 64bit and Windows 8 32bit / 64bit.

A printer driver must be installed if an USB interface will be used for connection. The printer driver for your unit is found on the Printer 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 Printer DVD in the DVD drive.
5. Exit all programs currently running.
6. Switch printer on.
   The Windows Installation Wizard is started automatically.

Follow the on-screen instructions. The source of the installation file is

"D:\windrv\win32\" for Windows XP 32bit / Windows Server 2003 32bit / Windows Vista 32bit / Windows Server 2008 32bit / Windows 7 32bit / Windows 8 32bit or

"D:\windrv\win64\" for Windows XP 64bit / Windows Server 2003 64bit / Windows Vista 64bit / Windows Server 2008 64 bit / Windows Server 2008 R2 64 bit / Windows 7 64bit / Windows 8 64bit

where D is the letter of the DVD drive used.

After successful installation, an icon for the label printer appears in the Windows "Printer" system folder.

7. Click icon in "Printer" system folder and make printer settings if necessary.

## 2.3 Connecting Label Printer via Optional RS-232 Interface

An optional RS-232 interface adapter is available for the printer. The interface must be connected to an USB master interface of the printer.

**Notice!**

**For detailed information see the Operating Instructions of the optional interface.**

## 2.4 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.**

## 2.5 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<br>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 |
| Setup | Local settings | PIN protection possible |
| | Machine param. | |
| | Print param. | |
| | Interfaces | |
| | Status line | |
| | Security | |
| Service | Firmware fr. storage device | ∗ Only with storage device defined as Default storage<br>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.

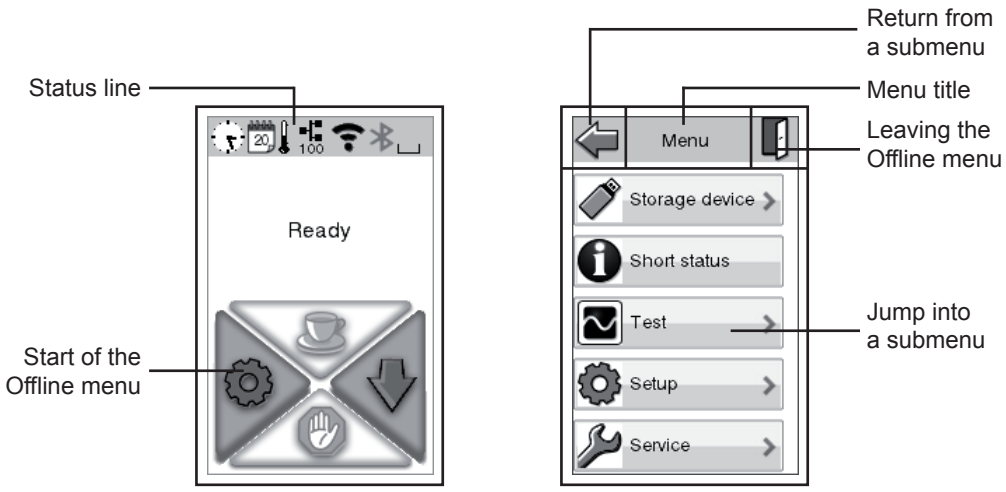



Fig. 2 Navigating in the Offline Menu

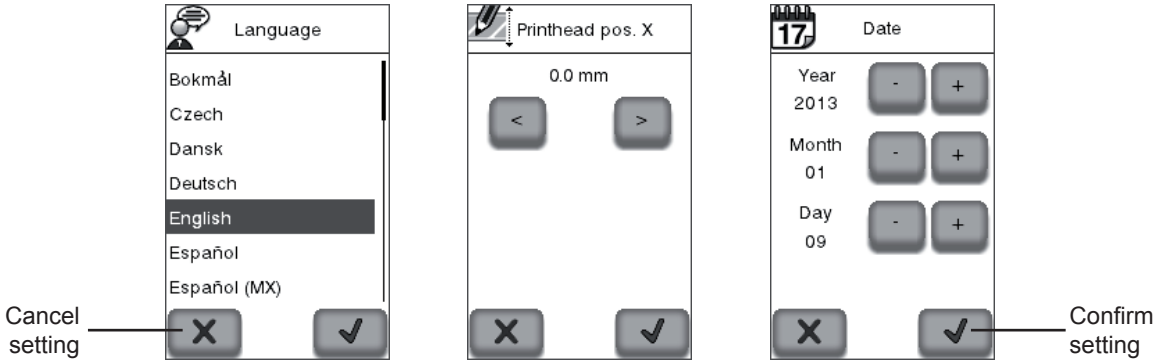



Fig. 3 Examples of parameter setting

**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
- Saving and loading of configuration settings
- 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.**

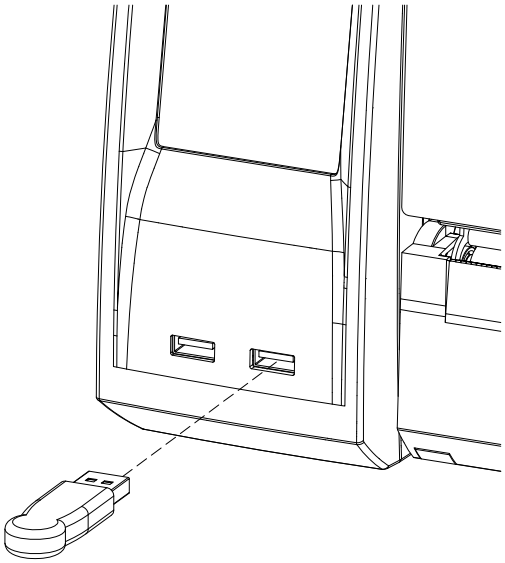


Fig. 4 Inserting the service key

▶ 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.<br>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.<br>The print output of the date occurs in the format set via the `Country` parameter.<br>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 `Timezone`, `Daylight saving` and `Date` parameters are set correctly.<br>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 `Country` parameter.<br>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.<br>**If keyboard is not connected, access only with service key inserted!** | `Automatic`<br>(=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.<br>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.<br>Shifting of the print image in the direction of paper flow also influences the cut position.<br>▶ Correct the `Cut position` parameters by the same value in the opposite direction.<br>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.<br>**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.<br>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<br>**Access only with service key inserted** | `0%` |
| `Cutter` | Configuration of the cut parameters for devices with cutter.<br>**If cutter is not installed, access only with service key inserted** | |
| `> Cut position` | Offset of the cut position relative to the rear label edge.<br>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**<br>Setting of the perforation depth.<br>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.<br>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 `Clean printhead!` message appears in the display.<br>The error message for the error which occurred is not displayed until the `Clean printhead!` 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.<br>Otherwise the heat level defined in the software is used. | `0` |
| `Print speed` | Basic print speed setting.<br>The print speed can be re-specified for each print job via software. The basic setting is not changed by this.<br>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.<br>`Off` for thermal direct printing: Sensor for monitoring the transfer ribbon is not activated.<br>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.<br>`Gap Sensor`: Detection using changes in the transparency between the label and label gap.<br>`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.<br>`On`: Additional advancement of the label medium which positions the label gap after the last printed label at the dispense plate.<br>`Off`: Label advance stops once the last label has fully passed the print line. | `On` |
| `Backfeed` | Method for backfeeding the label medium.<br>Backfeeding is necessary in the cutting mode since the front edge of the next label has passed the print line when cutting a label.<br>`always`: Backfeeding occurs independently of label contents.<br>`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<br>`On`: The next label will be printed and peeled-off after touching<br>`Off`: The next label will be printed and peeled-off immediately | `Off` |
| | Cut mode : Behavior between the cuts<br>`On`: After cutting the next label will be printed and cut after touching<br>`Off`: All labels will be printed and cut nonstop | |
| | **If dispenser module or cutter are not installed, access only with service key inserted** | |

| Parameter | Meaning | Default |
|---|---|---|
| Error-Reprint | On: With a correctable error and corresponding troubleshooting, the label being printed when the error occurs is repeated.<br>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.<br>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 Protocol error parameter to Off.<br>**Attention!**<br>**If the Protocol error 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.**<br>**Access only with service key inserted!** | On |
| Barcode error | On: With faulty barcode contents or size specifications, printing is interrupted.<br>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.<br>With the Automatic 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.<br>**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<br>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<br>`On`: Dynamic issuing of IP address by the DHCP server<br>`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<br>*** 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` |
| `RS-232` | Configuration of the optional RS-232 interface<br>**If interface is not installed, access only with service key inserted** | |
| `> Baud rate` | Speed (in Baud) of data transfer | `57.600` |
| `> Handshake` | Data transfer protocol | `RTS/CTS` |
| `Default storage` | Definition of the default storage, which can be operated by the control panel<br>`USB Memory` : USB flash drive at USB master interface<br>`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 | `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<br>- grey symbol if WLAN adapter is installed<br>- black symbol if WLAN adapter is connected to an Access Point | `Off` |
| `Bluetooth` | Displays the Bluetooth status<br>- grey symbol if Bluetooth adapter is installed<br>- 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

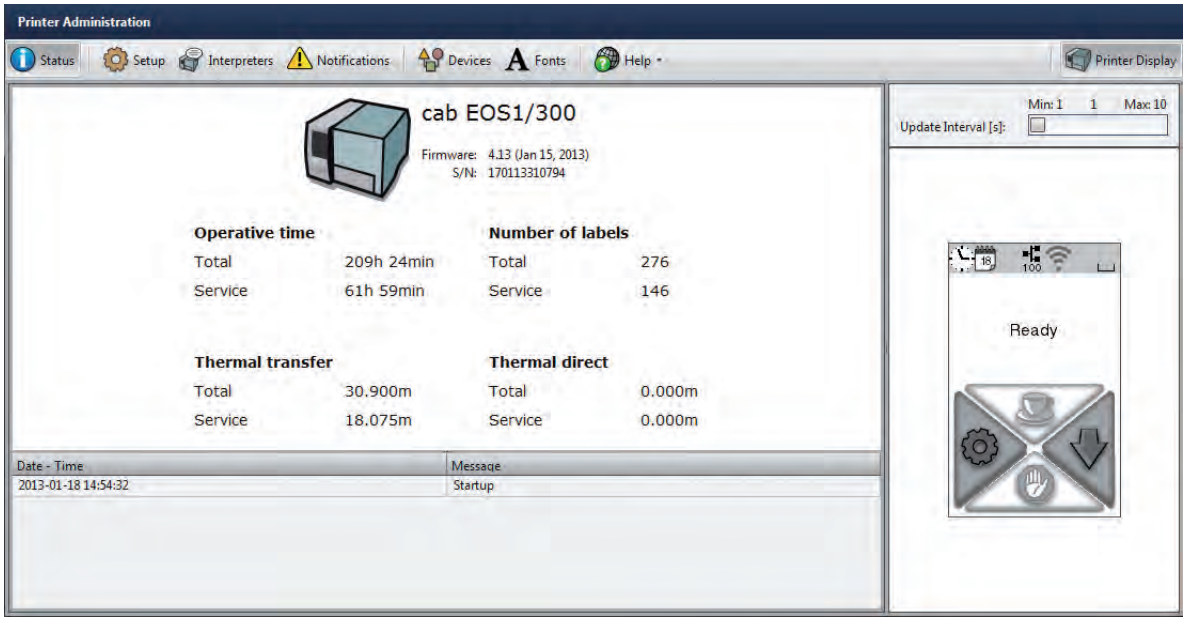



Fig. 5 "Status" tab on the printer web interface

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).

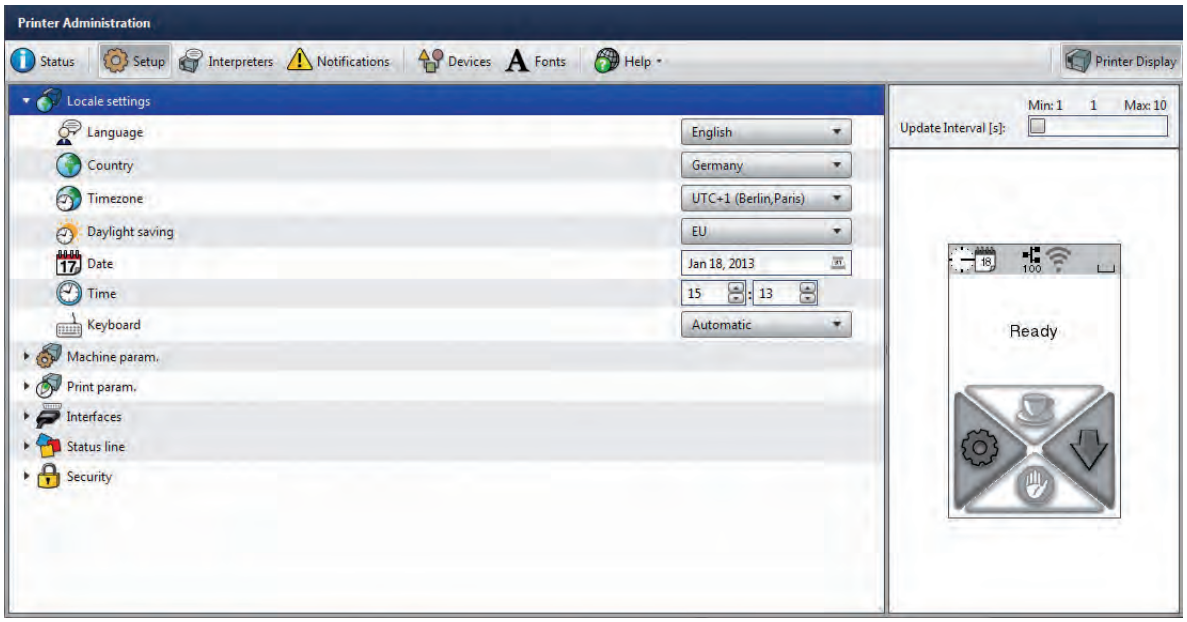



Fig. 6 "Setup" tab on the printer web interface

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.<br>▶ Select a predefined port address. | 9100 |
|  | LPD | Activation of the network printing service LPD ▷ ”2.1.1” on page 6:<br>▶ Set parameter to "On".<br>▶ 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:<br>▶ Set parameter to "On".<br>▶ 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<br>▶ Logon as admin | admin |
|  | FTP print | Password for FTP printing<br>▶ Logon as ftpprint | print |
|  | FTP card | Password for FTP access to storage devices (USB stick, IFFS)<br>▶ Logon as ftpcard | card |
|  | FTP admin | Password for FTP firmware update<br>▶ 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.

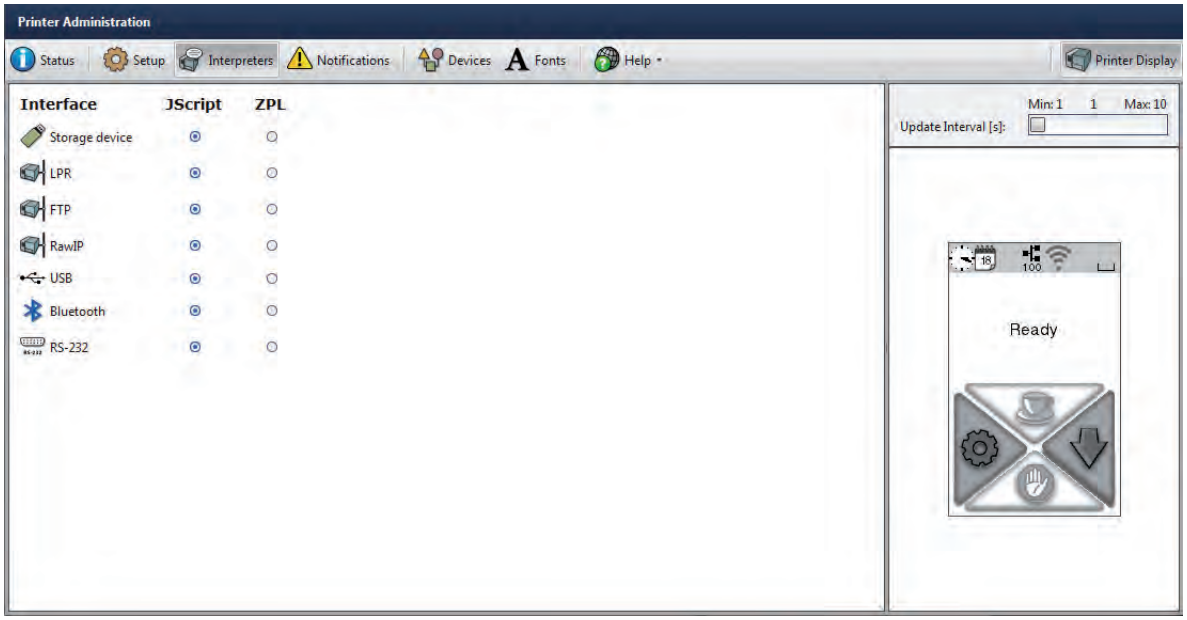



Fig. 7 "Interpreters" tab on the printer web interface

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.

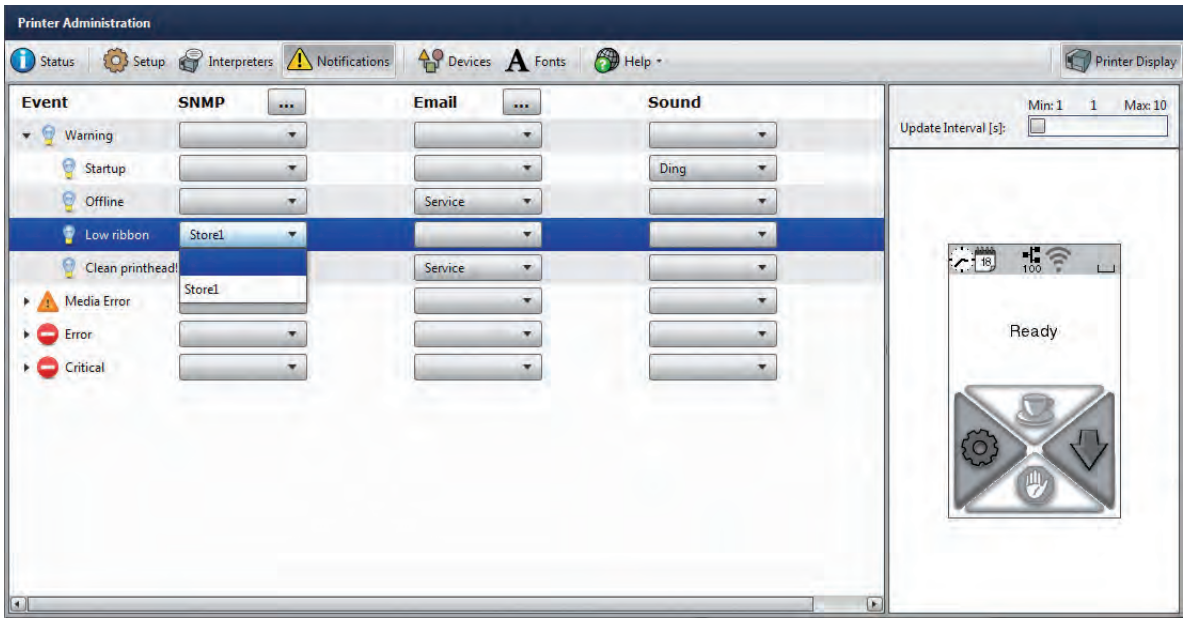



Fig. 8 "Notifications" tab on the printer web interface

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.

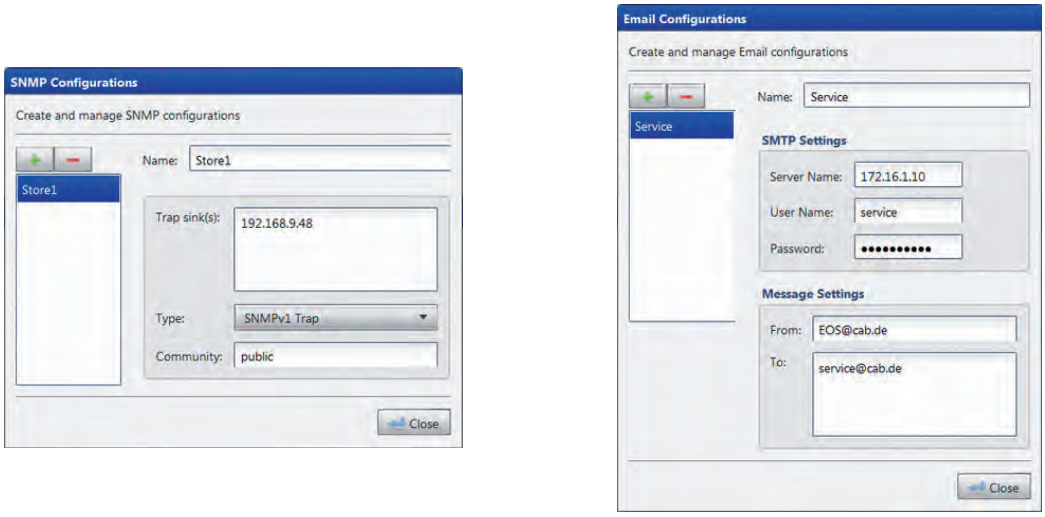



Fig. 9 Dialog boxes for SNMP and e-mail configuration

### Devices tab

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

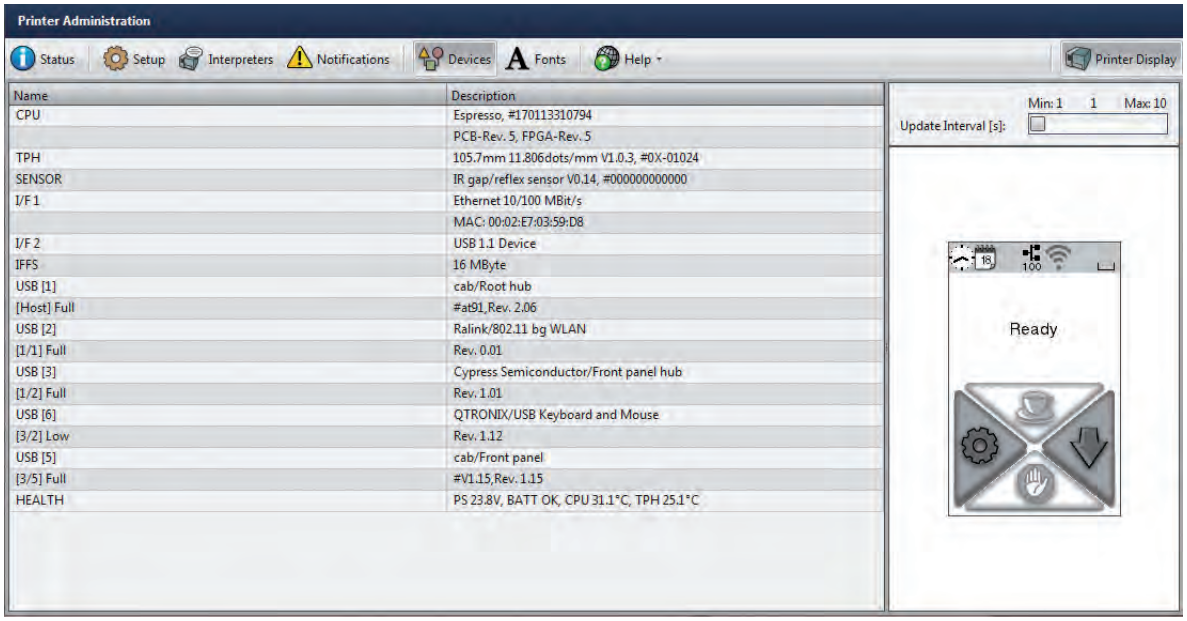



Fig. 10 "Devices" tab on the web interface

The contents of the display correspond with those of the `Device list` and are described in ▷ 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.

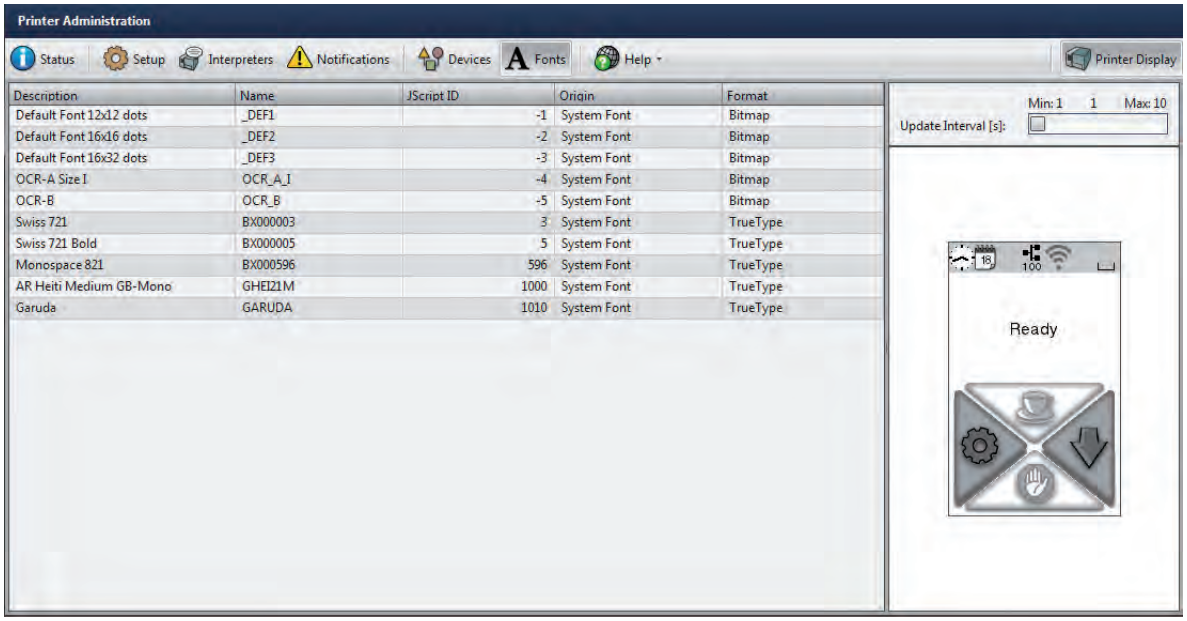



Fig. 11 "Fonts" tab on the web interface

The parameters correspond to those in the `Font list` and are described in ▷ table 13 on page 29.

### Help menu

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

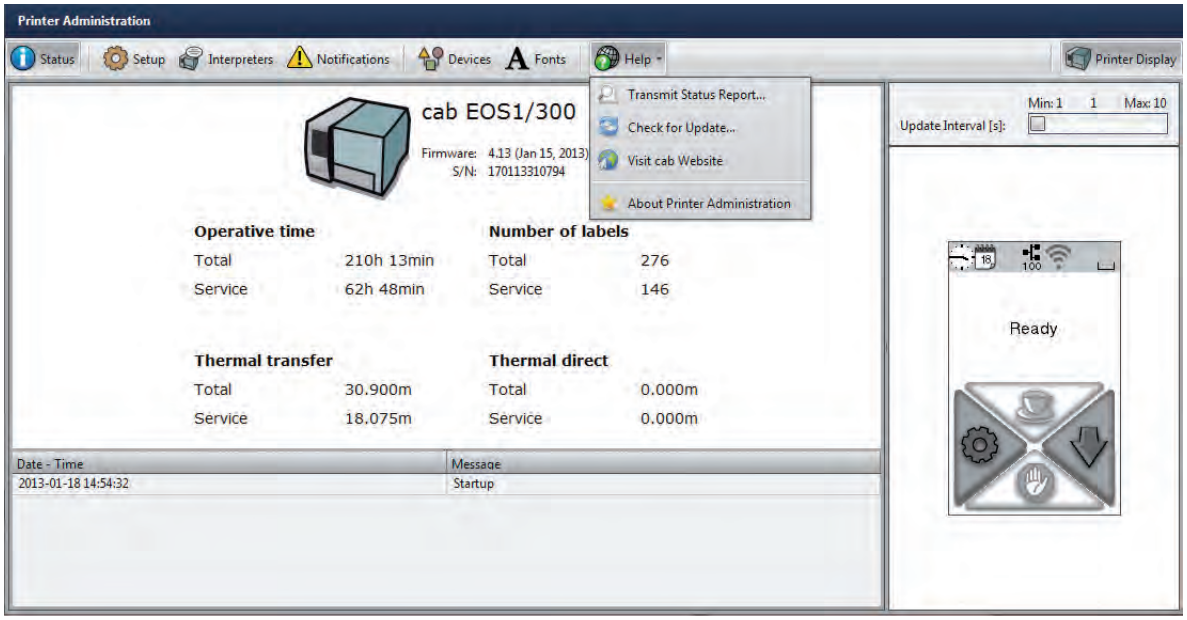
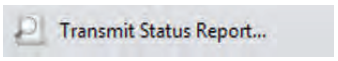
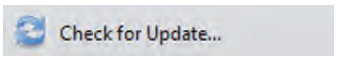



Fig. 12 “Help” menu on the web interface

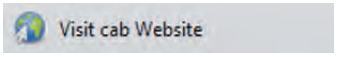



Transmission of a printer status report to the service/support department.

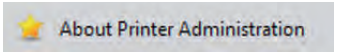
▶ Send the status report after request of the service/support department only.




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`<br>`Jan 15 2013` |
| 3 | Serial number of the PCB CPU | `S/N`<br>`170113310794` |
| 4 | Operative time and number of printed labels | `Hours/no. of labels`<br>`178h/2444` |
| 5 | Previously printed paper lengths with thermal direct printing / thermal transfer printing | `Thermal/Transfer`<br>`96,77m/4,03m` |
| 6 | IPv4 address of the printer when connected to a network via Ethernet | `eth0 IPv4`<br>`192.168.9.48` |
| 7 | IPv6 address of the printer when connected to a network via Ethernet | `eth0 IPv6`<br>`fe80::202:e7ff:fe03:59d8` |
| 8 | MAC address of the network adapter on the PCB CPU | `eth0 MAC`<br>`00:02:e7:03:59:d8` |
| 9 | IPv4 address of the printer when connected to a network via WLAN | `wlan0 IPv4`<br>`10.20.2.200` |
| 10 | IPv6 address of the printer when connected to a network via WLAN | `wlan0 IPv6`<br>`fe80::210:60ff:fe31:7c4` |
| 11 | MAC address of the WLAN adapter | `wlan0 MAC`<br>`00:10:60:31:07:c4` |
| 12 | Resolution, number of dots and revision of the printhead | `TPH`<br>`300dpi, 1248dots`<br>`Rev. 1.0.3` |
| 13 | Version number of the label sensor firmware | `Label Sensor`<br>`Rev 0.14` |
| 14 | Revision of PCB CPU and the FPGA | `PCB Rev. 5`<br>`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 |
| *Demand sensor* | |
| *Peel position* | *0,0 mm* |
| *Backfeed delay* | *250 ms* |
| *Liner tension* | *0 %* |
| *Cutter* | |
| *Cut position* | *0,0 mm* |
| *Cutting depth* | *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 |
| *RS-232* | |
| *Baud Rate* | *115200* |
| *Handshake* | *RTS/CTS* |
| Interpreter | |
| Storage | JScript |
| LPR | JScript |
| FTP | JScript |
| RawIP | JScript |
| USB | JScript |
| *Bluetooth* | *JScript* |
| *RS-232* | *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 |

Fig. 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 |
|---|---|
| | • Date and time of the printout<br>• Device type<br>• Version and creation date of the firmware<br>• 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. |
|  | • Operative time<br>• Number of labels printed<br>• Printed length with thermal transfer printing and thermal direct printing |

Table 12 Information in `Status print`

## 5.4 Font List

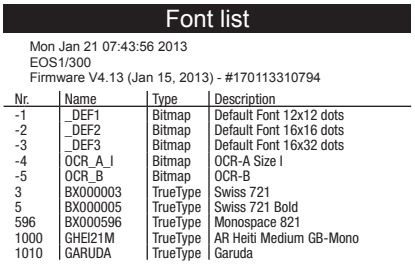
The `Font list` function prints the most important parameters of the fonts available in the printer in tabular form. The table contains both the original fonts in the printer and other fonts loaded into the printer. The printout occurs using the heat level and print speed specified in the `Setup > Print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

Fig. 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 .

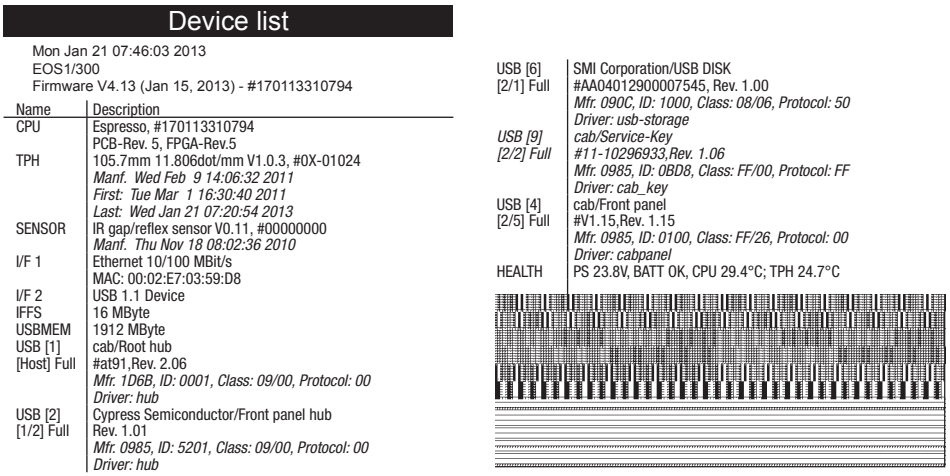



Fig. 15 Device
Parameters marked *italic* are only printed when the service key is inserted

| Name | Information |
|---|---|
| CPU | Type and serial number of the PCB CPU<br>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<br>**x**: Number of interface |
| IFFS | Size of the Internal Flash File System |
| USBMEM | Size and type of an installed external storage device |
| USB [a]<br>[b/c] Speed | Type and revision of installed USB devices<br>**a**: number of USB device<br>**b**: number of USB device to which device a is connected<br>**c**: number of interface of device b to which device a is connected<br>**Speed**: data transfer speed (low, full, high)<br>The following properties are only displayed when the service key is inserted:<br>**Mfr.**: Manufacturer ID. This identifies the manufacturer of the USB device<br>**Class**: Code for the USB device class<br>**Protocol**: Code for the type of communication with the USB device<br>**Phase**: Internal value for troubleshooting |
| HEALTH | Printhead voltage, charge state of the lithium battery on the PCB CPU,<br>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!**

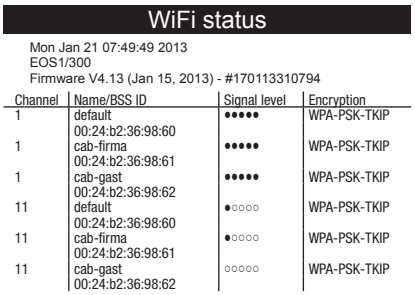
The `WiFi status` function prints out a list the most important parameters of the accessible Wireless Access Points. The printout occurs using the heat level and print speed specified in the `Setup > Print param.` menu.

**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<br>00:24:b2:36:98:60 | ●●●●● | WPA-PSK-TKIP |
| 1 | cab-firma<br>00:24:b2:36:98:61 | ●●●●● | WPA-PSK-TKIP |
| 1 | cab-gast<br>00:24:b2:36:98:62 | ●●●●● | WPA-PSK-TKIP |
| 11 | default<br>00:24:b2:36:98:60 | ●○○○○ | WPA-PSK-TKIP |
| 11 | cab-firma<br>00:24:b2:36:98:61 | ●○○○○ | WPA-PSK-TKIP |
| 11 | cab-gast<br>00:24:b2:36:98:62 | ○○○○○ | WPA-PSK-TKIP |

Fig. 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<br>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

`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.**

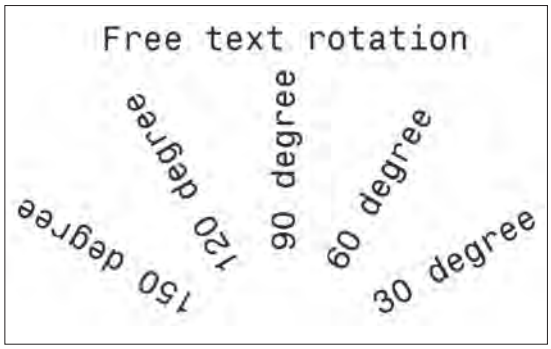
**If only media (labels, endless paper) is available which does not cover the entire printing width, the width of the printout can continuously be reduced down to 50 mm with the `Width ASCII dump` parameter ▷ "4.1.3" on page 15.**

**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:**



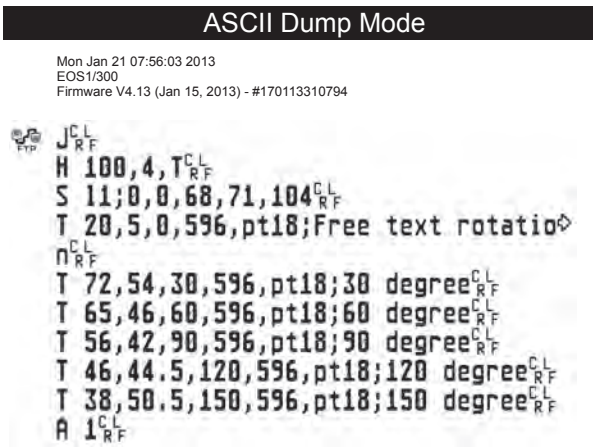




Fig. 17 Example label printed normally (left) and in `ASCII Dump Mode` (right)

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  .

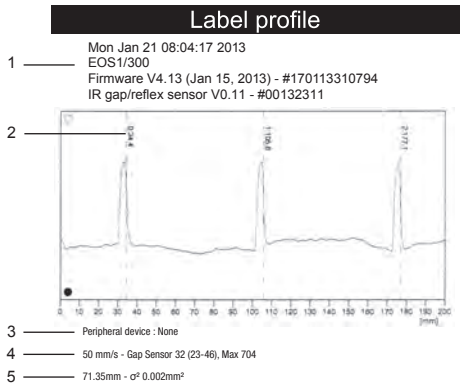



Fig. 18 Label profile

| No. | Information |
|---|---|
| **1** | Date and time of the printout<br>Device type<br>Version and creation date of the firmware<br>Serial number of the PCB CPU<br>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)<br>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`:

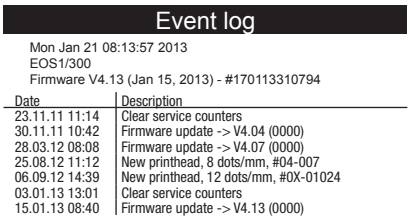
- Hardware fault
- Printhead replacement
- Firmware updates
- Resetting of the service counters

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) |

Fig. 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 an 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.

# 7 Pay-per-Print

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
- per COPY command via optional RS-232 or Bluetooth 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 I1;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  .

# 10 External Keyboard

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 `Keyboerd` 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.**

# 11 cabFirmwareUpdater

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.


Fig. 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.