User Manual

UM EN BLUEMARK LED

Order No.: —

UV LED printer for printing plastic labels for labeling terminal blocks, conductors, and devices

PHŒNIX CONTACT

INSPIRING INNOVATIONS

User manual

**UV LED printer for printing plastic labels
for labeling terminal blocks, conductors, and devices**

Designation: UM EN BLUEMARK LED

Revision: 01

Order No.:   —

This user manual is valid for:

Designation	Firmware	Order No.
BLUEMARK LED	≥ 2.31	5147888

Please observe the following notes

In order to ensure the safe use of the product described, you have to read and understand this manual. The following notes provide information on how to use this manual.

User group of this manual

The use of products described in this manual is oriented exclusively to qualified electricians or persons instructed by them, who are familiar with applicable standards and other regulations regarding electrical engineering and, in particular, the relevant safety concepts.

Phoenix Contact accepts no liability for erroneous handling or damage to products from Phoenix Contact or third-party products resulting from disregard of information contained in this manual.

Explanation of symbols used and signal words

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

DANGER
This indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING
This indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION
This indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

The following types of messages provide information about possible property damage and general information concerning proper operation and ease-of-use.

NOTE
This symbol and the accompanying text alerts the reader to a situation which may cause damage or malfunction to the device, either hardware or software, or surrounding property.

This symbol and the accompanying text provides additional information to the reader. It is also used as a reference to other sources of information (manuals, data sheets, literature) on the subject matter, product, etc.

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1 Safety and the environment

1.1 Description of the BLUEMARK LED

The BLUEMARK LED is a UV printer for labeling marking elements used in the field of electrical engineering. These include in particular plastic injection-molded parts and plastic plates. The printing method is based on a printhead with a UV Unit for hardening the fluid.

The printer is controlled via a PC. A printer driver for Windows XP, Windows 2000, Windows Vista and Windows 7 is supplied with the printer.

CLIP PROJECT advanced special planning and marking software from Phoenix Contact is also supplied as standard with the printer. In addition, the sheets can be labeled using popular Microsoft Office products.

1.2 Intended use

The BLUEMARK LED is a state-of-the-art device which complies with the recognized safety-related rules and regulations. Despite this, danger to the user or third parties could arise and the BLUEMARK LED or other property could be damaged while operating the device.

WARNING: Danger to health due to incorrect usage

The BLUEMARK LED may only be used while in proper working order and for the intended purpose. Users must act safely and must comply with the operating instructions. Errors, in particular those which affect safety, must be removed immediately.

Unauthorized modifications, which exceed the scope of replacing the Fluid Cartridge or Cleaning Cartridge, and changes to the BLUEMARK LED are not permitted for reasons of safety.

Only carry out the actions described in these operating instructions. Other tasks may only be performed by trained personnel or service engineers.

NOTE: The BLUEMARK LED is solely intended to print suitable media approved by Phoenix Contact.

Only print on media with complete rows, as missing rows can damage the printhead.

In addition, only use consumables from Phoenix Contact. For the order numbers of the Fluid Cartridge and Cleaning Cartridge, please refer to page A-2.

Intended use includes observing the operating instructions.

1.3 Please observe the following notes

1.3.1 Dangers to health

⚠	**WARNING: Danger - mains voltage** Never open the printer forcibly and do not carry out any repairs yourself.

⚠	**WARNING: Danger due to incorrect operation** Normally, the printer may only be opened via the menu. Prior to opening, it must be ensured that the UV Unit is switched off and has cooled down, and that the fluid valves are closed. Otherwise UV light, heat or moving parts could pose a danger to health.

⚠	**WARNING: Danger of crushing** There are moving parts inside the printer. Never operate the BLUEMARK LED without its cover in place and do not attempt to access the inside of the device through the device openings during operation.

✖ Xi	**Irritation due to the fluid** The fluid that is used contains substances which can cause irritation and inflammation of the skin, eyes, and respiratory system. Do not inhale vapor and avoid contact with the skin and eyes. If your skin comes into direct contact with the fluid, wash the affected area thoroughly with water and soap.

1.3.2 Risk of damage to the device

NOTE: Damage to the device: Observe the capacity

Observe the maximum capacity when loading sheets. If too many sheets are loaded, the transport module may be unable to start up and this can result in damage to the printer.

NOTE: Do not touch printhead

Make sure that you do not touch the printhead. This can damage the printhead or adversely affect the print image quality.

NOTE: Do not touch surface of UV Unit

Make sure that you do not touch the surface of the UV Unit. This can damage the UV Unit.

NOTE: Notes on power supply connection

The BLUEMARK LED is designed for power supplies with an AC mains voltage of 100 V to 240 V. Only connect the BLUEMARK LED to sockets with a ground conductor contact.

Only connect the BLUEMARK LED to devices that have a SELV.

Before establishing or disconnecting connections, switch off all affected devices (computer, printer, accessories).

NOTE: Protect the BLUEMARK LED against moisture

Only operate the BLUEMARK LED in a dry environment and do not expose it to any moisture (splash water, mist, etc.).

NOTE: Always secure the printer prior to transport

If you want to transport the printer, secure the printhead first so that it is not damaged.

You will also need to replace the Fluid Cartridge with an empty dummy Fluid Cartridge. Ensure that the Cleaning-Cartridge is inserted. Otherwise, fluid can leak from the printhead and contaminate the printer or render it unusable.

Use the original packaging when transporting or sending the printer over long distances.

Notes on use

NOTE: Limited durability of the fluid

The UV-hardening fluid has limited durability. Once the expiry date is reached, the Fluid Cartridge must be changed. The printer will notify you that the durability period is about to expire (see page 3-5).

The Fluid Cartridge is designed for single use and cannot be refilled.

Notes on storage

NOTE: For optimum durability, store the Fluid Cartridge at 0°C ... 20°C.

1.4   Notes on disposal

Dispose of the Fluid Cartridge correctly

Empty Fluid Cartridges can be disposed of with domestic waste. Used Fluid Cartridges that are not empty must be disposed of as hazardous waste, in the same way as ink residue, for example. Please observe the local regulations.

Dispose of the Cleaning Cartridge correctly

The Cleaning Cartridge must be disposed of as hazardous waste, in the same way as ink residue, for example. Please observe the local regulations.

Dispose of used devices correctly

The BLUEMARK printer contains valuable recyclable materials, which should be utilized after the useful life (lifecycle) of the printer has ended.

The PCB of the BLUEMARK is equipped with a lithium battery. Please dispose this battery according to the local regulations.

Please support us in this and contact your Phoenix Contact sales office to determine the best way of returning the old device. Phoenix Contact will then handle the necessary recycling and disposal measures.

2 Setting up and connecting the printer

2.1 Checking the scope of supply

Check the scope of supply.

The following should be supplied in the box with the BLUEMARK LED:

– Mains cable (Europe and US)
– CD-ROM with driver and these operating instructions
– USB cable
– CLIP PROJECT advanced planning and marking software
– Hexagonal screwdriver

Retain the packaging for subsequent transport. The original packaging can also be ordered separately (see "Ordering data" on page A-2).

2.2 Removing the transportation safeguard and inserting the Fluid Cartridge

A transportation safeguard is fitted inside the BLUEMARK LED when supplied. For safety reasons, the printer is also delivered with an empty Fluid Cartridge.

The first step is to remove the transportation safeguard and replace the empty Fluid Cartridge with a full Fluid Cartridge (BLUEMARK FLUID-CARTRIDGE, Order No. 5147421).

Removing the transportation safeguard

• Connect the printer to the mains using the corresponding mains cable.
  The printer has a wide-range power supply unit (100 V AC ... 240 V AC), which means that no voltage switch-over is required on the device.
• Switch on the printer.
  "`Fluid Cartridge Missing`" appears in the display.
  Press the ● key (2 in Figure 2-1) to unlock the cover.
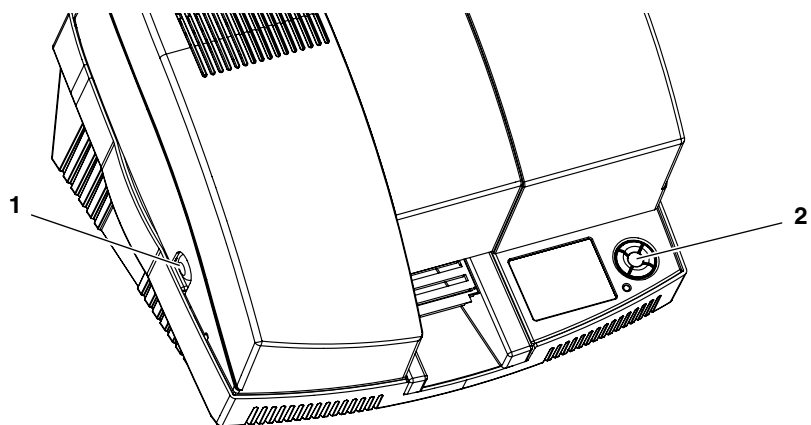
Figure 2-1   Opening the cover

• Press the pushbuttons (1) on both sides of the printer and open the cover.
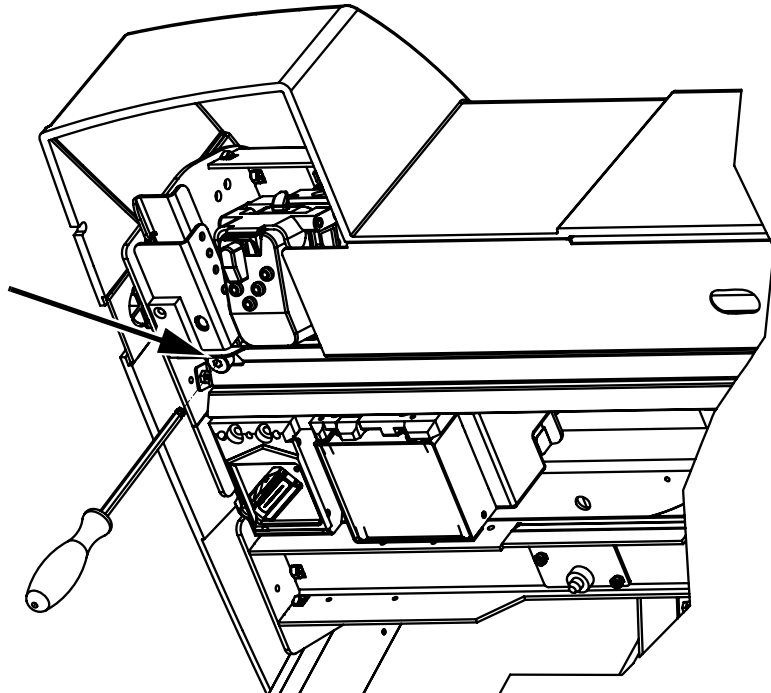
Figure 2-2   Unscrewing the transportation safeguard screw

When the cover is opened, you will see the head of an Allen screw in the middle on the left-hand side.

•   Unscrew this Allen screw completely using the hexagonal screwdriver provided.

The screw cannot be removed and can remain in the holder after being unscrewed.

Notes on transport

NOTE: If you want to transport the BLUEMARK LED again following initial startup, the transportation safeguard must be locked again.

You will also need to replace the Fluid Cartridge with the dummy Fluid Cartridge (see page 2-3) and use the original packaging.

The dummy Fluid Cartridge and the original packaging can also be ordered as replacement parts (see "Ordering data" on page A-2).

For additional notes, see "Preparing the printer for transport" on page 4-5.

Inserting the Fluid Cartridge

For safety reasons, the BLUEMARK LED is delivered with an empty fluid cartridge ("dummy fluid cartridge"). Replace this with a BLUEMARK FLUID-CARTRIDGE (Order No. 5147421).
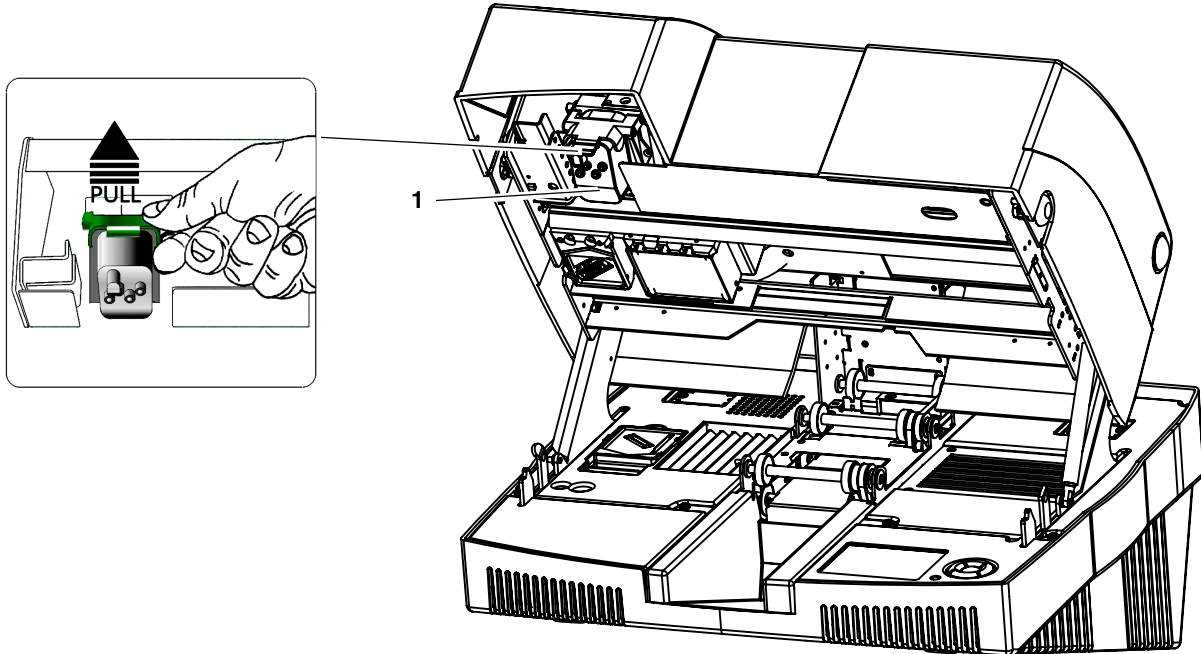
Figure 2-3   View of the Fluid Cartridge (1)

• Release the green locking latch and remove the empty Fluid Cartridge by pulling it slightly away from and upwards out of the guide.
• Insert the new Fluid Cartridge as a reverse of the above, press it down firmly into the diagonal guide rail until it engages with a click. Now press it upwards and lock the green latch again until this engages with a click.
• Close the cover again.

i | Retain the empty Fluid Cartridge. It is clearly marked "DUMMY". It should be inserted before the device is shipped.

The fluid system is filled automatically. This takes around 1 minute. The drivers must then be installed (see "Connecting the printer" on page 2-6).

2.3   About the printer
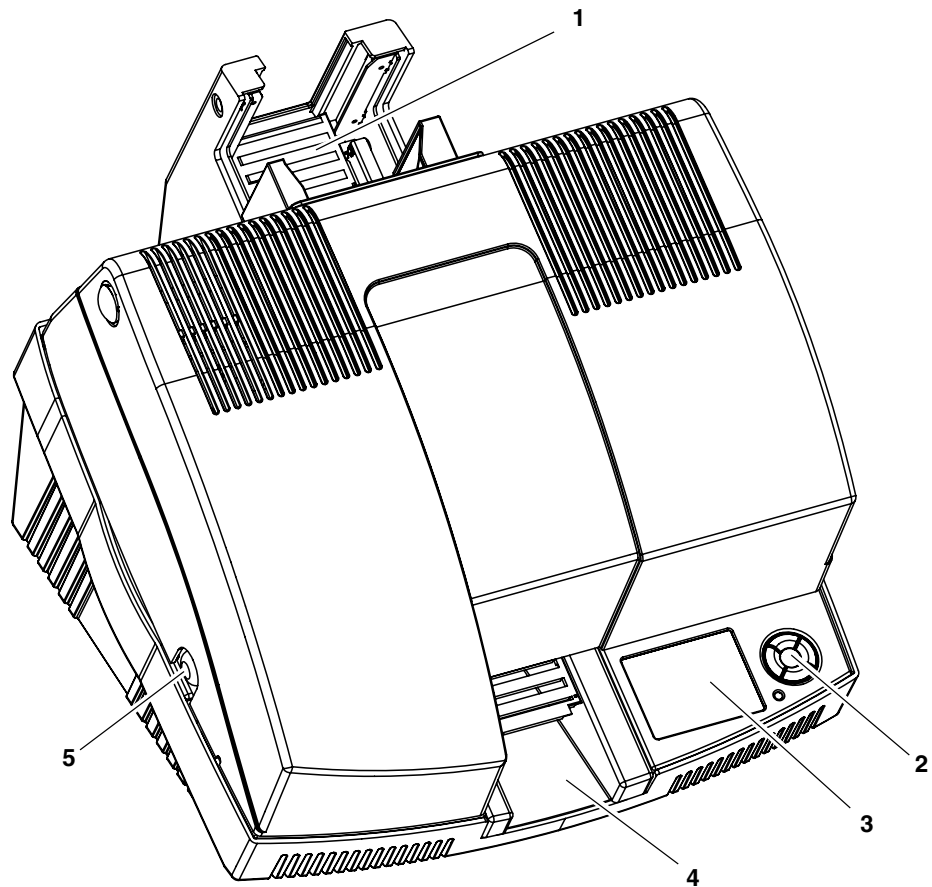
Figure 2-4   Operating elements of the printer

1   Transport module for holding sheets
2   Keypad
3   Display
4   Output tray
5   Unlocking the cover (pushbutton on both sides of the printer)

Normally the cover can only be opened if the printer has already been unlocked via the menu (see page 5-7).
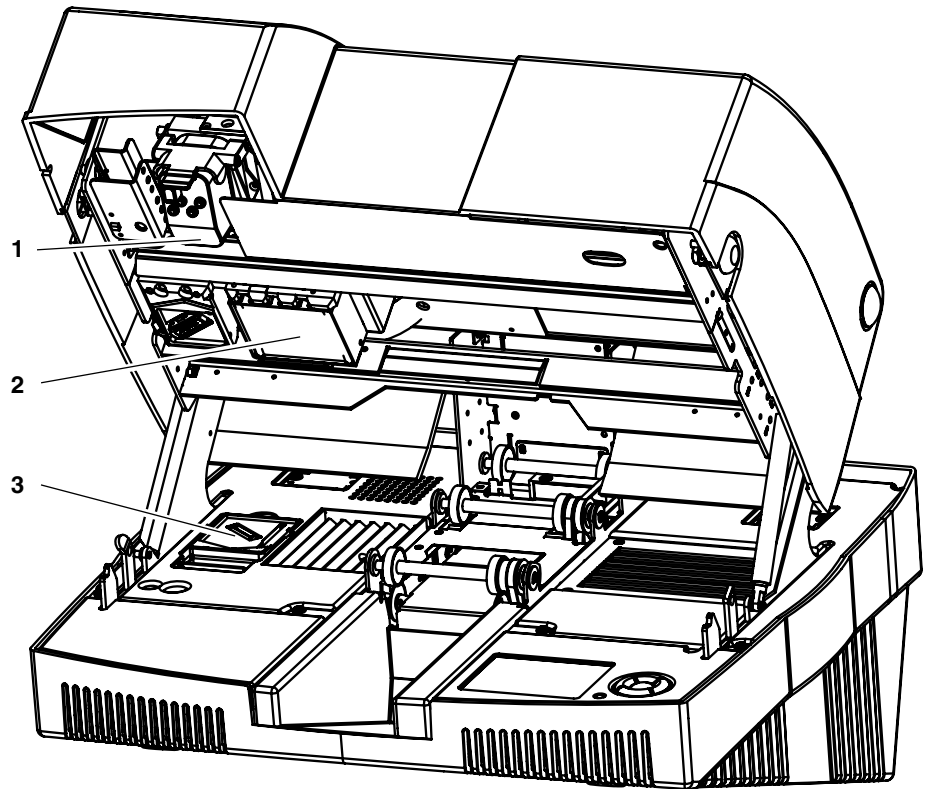
Figure 2-5   View inside

1   Fluid Cartridge
2   UV Unit
3   Cleaning Cartridge

2.4   Setting up the printer

⊘	**NOTE: Set up the printer in a clean, dry location.** The following are not suitable: – Damp or dusty locations – Locations exposed to high levels of heat, direct sunlight or low temperatures (operating range: 5°C to 35°C)

i	To ensure excellent print quality, the device must be set up on a completely level surface.

•   Unpack the printer and set it up in a suitable location on a solid and level surface.

2.5 Connecting the printer
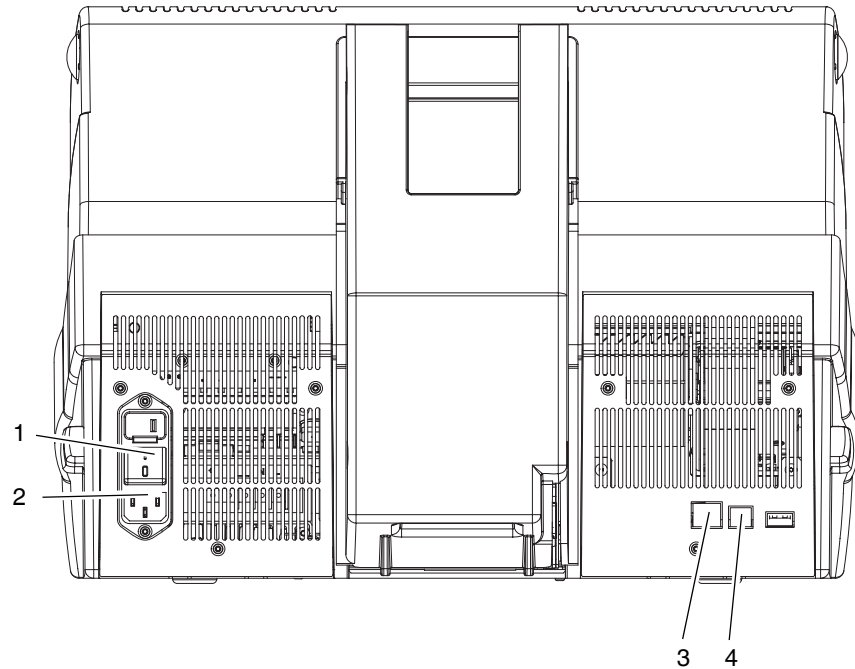
Figure 2-6   Connections on the back of the printer

1 On/off switch

2 Mains connection

3 Ethernet connection (LAN)

4 USB connection

2.5.1 Mains connection

• Connect the printer to the mains using the corresponding mains cable.
 The printer has a wide-range power supply unit (100 V AC ... 240 V AC), which means that no voltage switch-over is required on the device.

The BLUEMARK LED can be connected to the computer via USB, Ethernet (LAN) or Bluetooth.

The BLUEMARK LED automatically selects the interface via which it receives data.

The interface can also be preset via the menu (see "Setting the interface" on page 3-10).

2.5.2 USB connection

Requirements Prior to driver installation, the following points must be met:
– The transportation safeguard has been removed.
– The dummy Fluid Cartridge has been replaced with a normal Fluid Cartridge.
– The BLUEMARK LED is installed in a suitable location.
– The BLUEMARK LED is connected to the power supply, but is switched off.
– The BLUEMARK LED is **not** yet connected to the PC.

Start driver installation with the supplied installation program, which uninstalls any existing older BLUEMARK LED drivers and copies the new drivers.
• Insert the supplied CD-ROM and start the
  "[Drive]:\Bluemark Installer\setup.exe" file.

The following window appears:
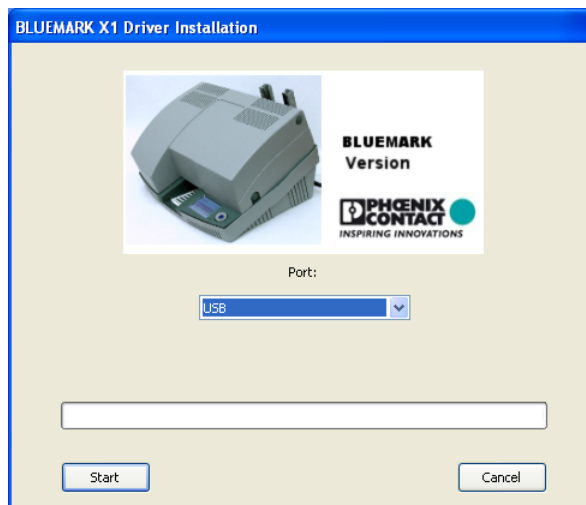
Figure 2-7   BLUEMARK LED driver installation (USB)

• Select "USB" from the drop-down menu and click on "Start".

Any older BLUEMARK LED drivers are uninstalled and the new drivers are copied. Once this is done, a message window appears.
• Confirm the message with "OK".
• Connect the printer to the PC using the USB cable supplied.
  The smaller USB connector (USB B, bottom connector in the figure) is connected to the printer and the wider connector (top connector in the figure) is connected to the PC.

Figure 2-8   USB cable

- Switch on the printer.
  After a few seconds the message "**Initialisation**" appears in the display followed by "**Ready**".
  The PC then responds with "Found New Hardware" and prompts driver installation.
  New hardware (a BLUEMARK DFU device) is detected first and a corresponding driver is installed automatically. The BLUEMARK DFU device is required for future firmware updates (firmware updates are available at www.phoenixcontact.net/catalog).

> **i** The following applies to Windows XP.

① **Found New Hardware Wizard**

Welcome to the Found New Hardware Wizard

Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).

Read our privacy policy

Can Windows connect to Windows Update to search for software?

○ Yes, this time only
○ Yes, now and every time I connect a device
● No, not this time

Click Next to continue.

[< Back] [Next >] [Cancel]

② **Found New Hardware Wizard**

This wizard helps you install software for:

Bluemark DFU device

ⓘ **If your hardware came with an installation CD or floppy disk, insert it now.**

What do you want the wizard to do?

● Install the software automatically (Recommended)
○ Install from a list or specific location (Advanced)

Click Next to continue.

[< Back] [Next >] [Cancel]

③ **Found New Hardware Wizard**

Completing the Found New Hardware Wizard

The wizard has finished installing the software for:

↔ Bluemark DFU device

Click Finish to close the wizard.
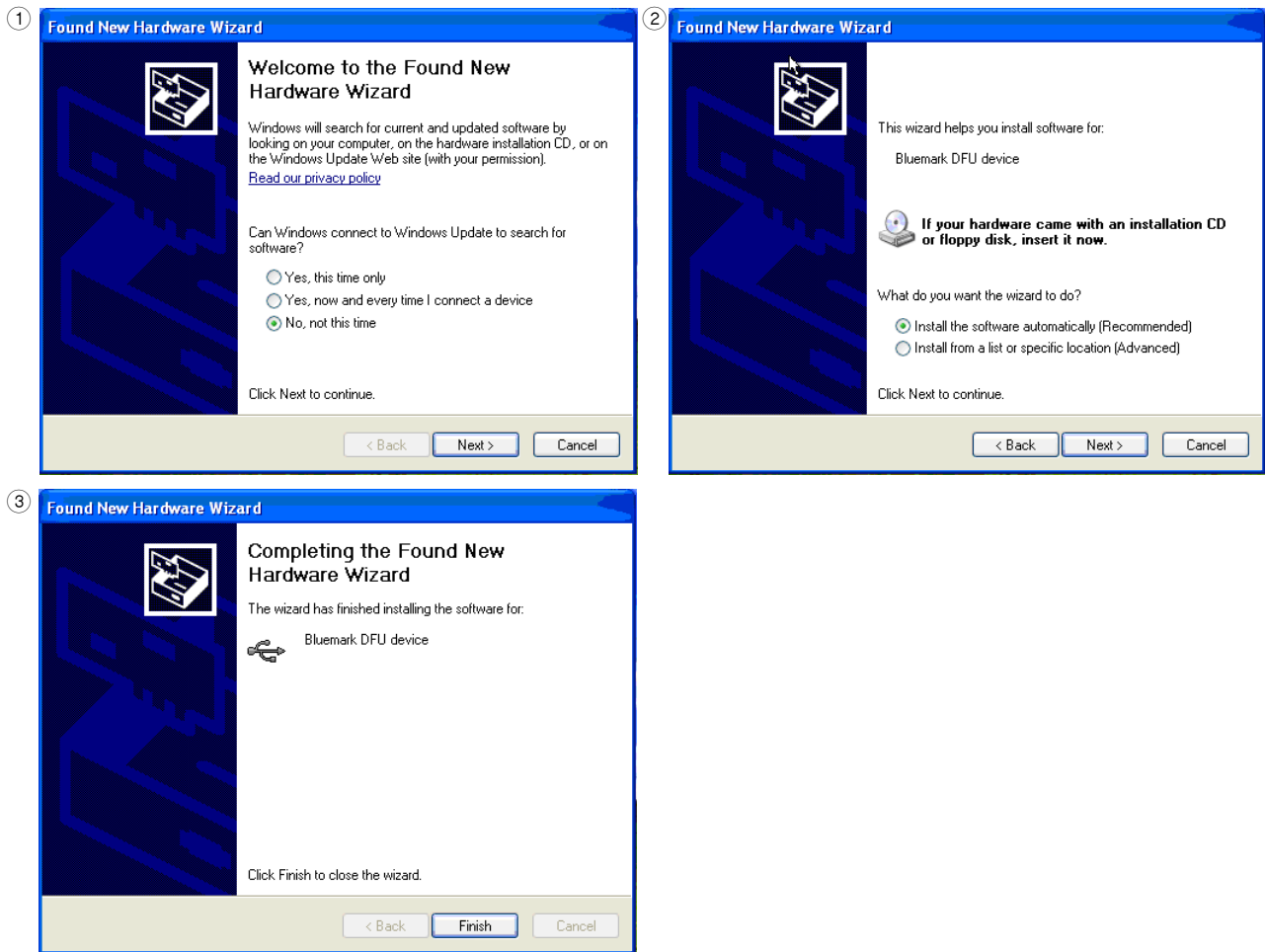
[< Back] [Finish] [Cancel]

Figure 2-9   USB installation under Windows XP (1)

- Select "No, not this time" and click "Next" to start the installation.
- The "Install the software automatically (Recommended)" item is already selected. Click "Next".
- Click "Finish"

The PC then responds again with "Found New Hardware" and a Windows Installation wizard opens. This time the actual driver is installed.

- Follow the instructions to install the software.
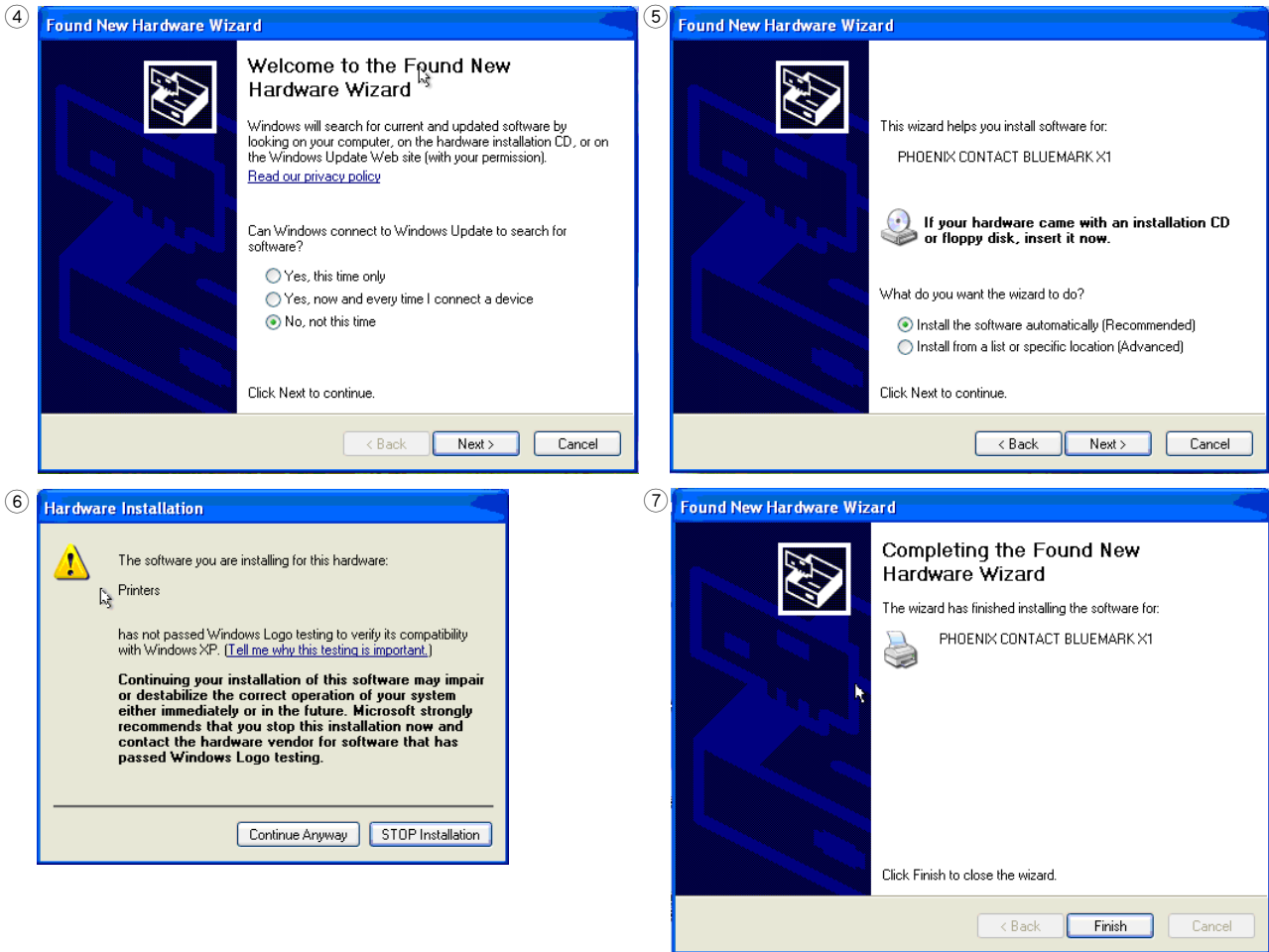
Figure 2-10　　USB installation under Windows XP (2)

- Select "No, not this time" and click "Next".
- The "Install the software automatically (Recommended)" item is already selected. Click "Next".
- If a message appears indicating that the printer has not passed Windows logo testing, click on "Continue Anyway".
- Click "Finish" to complete the installation.

The printer and the printer driver are installed and the printer is ready to operate.

2.5.3 Ethernet connection (LAN)

Use this connection type if you wish to connect the device to your network via an Ethernet cable.

Requirements

Prior to driver installation, the following points must be met:
– The transportation safeguard has been removed.
– The dummy Fluid Cartridge has been replaced with a normal Fluid Cartridge.
– The BLUEMARK LED is installed in a suitable location.
– The BLUEMARK LED is connected to the power supply, but is switched off.
– Equipment required: Hub/router/switch and an Ethernet cable.

Connecting the Ethernet cable

• Connect one end of the Ethernet cable to the Ethernet connection on the back of the printer.
• Connect the other end of the Ethernet cable to the hub/router/switch.

> Do not connect the Ethernet cable to a cable modem. You must have an operational network.

• Switch on the BLUEMARK LED.

Start driver installation with the supplied installation program, which uninstalls any existing older BLUEMARK LED drivers and copies the new drivers.
• Insert the supplied CD-ROM and start the "[Drive]:\Bluemark Installer\setup.exe" file.

The following window appears:

Figure 2-11   BLUEMARK LED Driver Installation (LAN)

• Select "LAN" from the drop-down menu.
• Enter the IP address that has been assigned to your printer.
  The IP address can be read on the printer (see "Reading the IP Address" on page 2-11).
  Enter the IP address in 3-digit format or separate the numbers with a dot.
  Example: IP address 172.24.20.109 or 172024020109.

- Once you have entered the IP address, click on "Start".

The printer driver is installed and the printer is then ready for operation.

The display language is set to English by default. You can switch to a different language (see "Changing the language setting" on page 3-7).

Reading the IP Address

If your network has DHCP, the IP address can be called via the BLUEMARK LED display.

- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Confirm the **Settings** item by pressing the ● key.
- Select **Interfaces** via ▼. Confirm by pressing the ● key.
- Select **LAN Parameter** via ▼. Confirm by pressing the ● key.
- Select **Info IP Config** via ▼. Confirm by pressing the ● key.

IP Address Assignment

The Ethernet interface is in DHCP mode by default. This means that the IP address is assigned automatically.

The menu can be used to set DHCP mode to "Not active" and to manually assign an IP address.

Your system administrator should inform you of the IP address, subnet mask, and standard gateway to be set.

Exiting DHCP mode
- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Confirm the **Settings** item by pressing the ● key.
- Select **Interfaces** via ▼. Confirm by pressing the ● key.
- Select **LAN Parameter** via ▼. Confirm by pressing the ● key.
- Select **DHCP Mode** via ▼. Confirm by pressing the ● key.
- Select **Not active** via ▲▼. Confirm by pressing the ● key.

Manually assigning an IP address
- Go back one level by pressing the ◀ key.
- Select **TCP/IP IP Address** via ▼. Confirm by pressing the ● key.
- Set the IP address using the arrow and cursor keys. Confirm by pressing the ● key.
  This IP address must match the IP address specified at driver installation.
- Select **TCP/IP Subnetmask** via ▼. Confirm by pressing the ● key.
- Set the subnet mask using the arrow and cursor keys. Confirm by pressing the ● key.
- Select **TCP/IP Standardgateway** via ▼. Confirm by pressing the ● key.
- Set the standard gateway using the arrow and cursor keys. Confirm by pressing the ● key.
- The ▶ key can be used to return directly to the start screen (**Ready**).

2.5.4 Bluetooth connection

The printer has a Bluetooth interface, which enables wireless data transmission. For the technical data for the Bluetooth interface, please refer to page A-1.

Basics of wireless printing via Bluetooth

With Bluetooth technology for wireless communication, devices such as printers and computers can communicate with one another via radio waves in the 2.400 GHz band over distances of up to 100 m.

For Bluetooth compatibility, the BLUEMARK LED has an integrated Bluetooth wireless module.

Unlike infrared communication, Bluetooth technology does not require a direct line of sight between the transmitter and receiver.

Only one computer

The printer can only establish a wireless Bluetooth connection with one computer. The printer ignores all other computers that attempt to establish a connection. These computers must wait until the original connection has been terminated. Only then can they establish a new connection.

Bluetooth detection

Detection refers to the process where a Bluetooth-compatible device detects other Bluetooth-compatible devices within range.

If a device has detected the printer, it displays the Bluetooth device name of the printer. For the BLUEMARK LED this is `BLUEMARK_xxxx`. xxxx represents an internal code, which differentiates between several BLUEMARK LED printers. The Bluetooth device name can be read via the menu (see page 2-15).

The detection method varies according to the type of Bluetooth software used.

Installation on the PC

In order to use the printer, the PC must be equipped with Bluetooth technology.

It is important that the "Secure connection" checkbox is **not** activated in the Bluetooth interface properties on your PC.

Prior to printer installation, the Bluetooth interface must be installed and a virtual interface (COM port) set up here.

If your PC has an internal Bluetooth wireless module, refer to the user manual for your computer for information about the Bluetooth function of the PC.

If your PC does not have an internal Bluetooth wireless module, you must use a Bluetooth PC card or an adapter in order to use Bluetooth technology.

Setting up the BLUEMARK LED

Requirements

Prior to driver installation, the following points must be met:
– The transportation safeguard has been removed.
– The dummy Fluid Cartridge has been replaced with a normal Fluid Cartridge.
– The BLUEMARK LED is installed in a suitable location.
– The BLUEMARK LED is connected to the power supply and switched on.
– A Bluetooth interface is installed on your PC and a virtual interface (COM port) has been set up here.

Start driver installation with the supplied installation program, which uninstalls any existing older BLUEMARK LED drivers and copies the new drivers.

•   Insert the supplied CD-ROM and start the "[Drive]:\Bluemark Installer\setup.exe" file.

The following window appears:

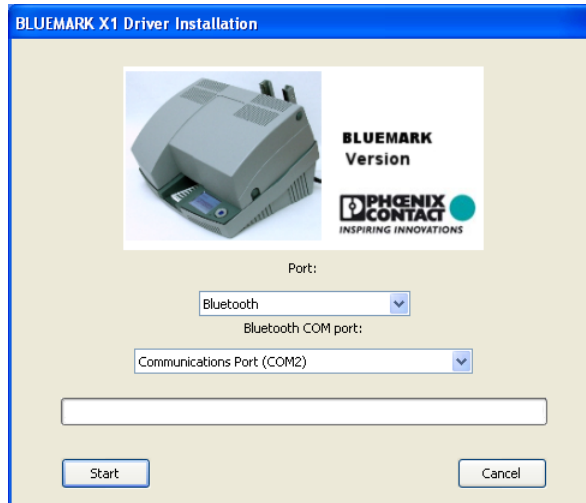Figure 2-12   BLUEMARK LED Driver Installation (Bluetooth)

•   Select "Bluetooth" from the drop-down menu.
•   Select your Bluetooth interface under "Bluetooth COM port" (COM2 in the example).
•   Click on "Start".
•   If installation has been completed successfully, a message is displayed. Confirm this message with "OK".

The printer and the printer driver are installed and the printer is ready to operate.

Reading the Bluetooth Device Name

The Bluetooth device name can be read via the menu. This is a fixed, predefined printer name, which cannot be modified. It is displayed on your PC when searching for Bluetooth devices (when the printer is switched on). xxxx represents an internal code, which differentiates between several BLUEMARK LED printers.

• Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
• Confirm the **Settings** item by pressing the ● key.
• Select **Interfaces** via ▼. Confirm by pressing the ● key.
• Select **Printer Name** via ▼. Confirm by pressing the ● key.
• The ▶ key can be used to return directly to the start screen (**Ready**).

Modifying the Bluetooth PIN

The Bluetooth connection can be protected using a PIN code. The default setting is PIN 0000.

• Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
• Confirm the **Settings** item by pressing the ● key.
• Select **Interfaces** via ▼. Confirm by pressing the ● key.
• Select **Bluetooth PIN** via ▼. Confirm by pressing the ● key.
• Set the PIN using the arrow and cursor keys. Confirm by pressing the ● key.
• The ▶ key can be used to return directly to the start screen (**Ready**).

2.6   Initial printout (test sheet)

The BLUEMARK LED is now ready for printing.

Printing a test sheet   A UC-TM 5 sheet (Order No. 0818108) is required for the test printout. A different type of sheet can be used for the test printout. However, the samples may not be printed precisely on the labels.

• Switch on the printer.

• Load a sheet (ideally UC-TM 5) in the input tray.

• In the start menu, select "Settings... Printers and Faxes".

• Select the BLUEMARK LED printer and then click on "File... Properties".

Figure 2-13   PHOENIX CONTACT BLUEMARK LED Properties: Maintenance

• On the "Maintenance" tab, select the "Testprint on UC-TM 5" icon.

• The test printout should correspond to Figure 2-14.

Figure 2-14   Test printout on UC-TM 5

3 Printing sheets and setting up the printer

3.1 Loading sheets

NOTE: Only use media which has been approved by Phoenix Contact.
Only print on media with complete rows, as missing rows can damage the printhead.

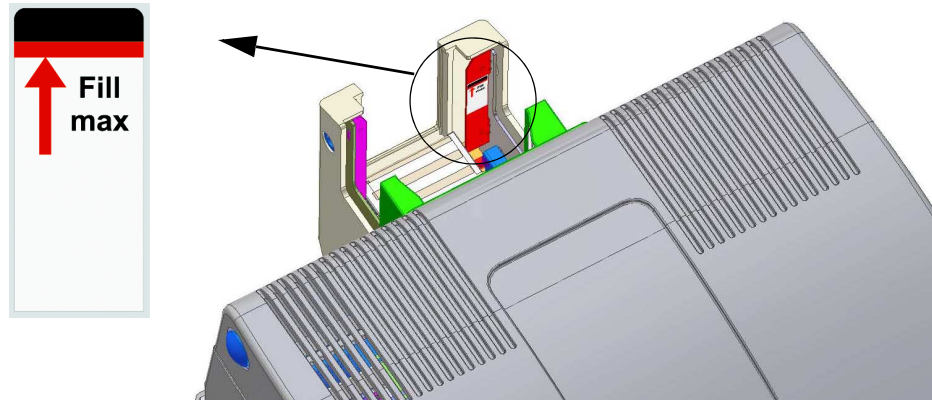**NOTE:** Observe the maximum capacity when loading sheets.

Figure 3-1　　　Transport module with capacity indicator

Before printing, load the sheets in the transport module. A marking indicates the maximum capacity. It is around 15 mm below the top edge. If too many sheets are loaded, the transport module cannot move up and the sheets or printer may be damaged.

NOTE: The transport module holds around 20 sheets with a typical height of around 4 mm. The output tray holds fewer sheets than the input tray (around 10). It must therefore be emptied during printing.

For automatic ejection, a sheet slide (BLUEMARK CARD SLIDER, Order No. 5147010) is available as an accessory, which transports the sheets from the output tray.

3.2 Specifying printing

The sheets can be labeled using CLIP PROJECT advanced or popular Microsoft Office products.

Please note that the sheet type or the page size must be specified in the application program.

In CLIP PROJECT advanced the correct sheet type must be set, in MS Word or MS Excel the page size (e.g., 76 x 120 mm) must correspond to the sheet size.

3.3 Starting printing

WARNING: Danger of crushing

There are moving parts inside the printer. Never operate the BLUEMARK LED without its cover in place and do not attempt to access the inside of the device through the device openings during operation.

Figure 3-2   Do not access the device through the device openings

If nothing is printed for two minutes, the printer head temperature will be reduced in order to save energy. After this, the printer will require a warm-up time of approximately one 1 minute before it can begin processing a new print job.

3.3.1 Canceling an active print job

During printing, the following appears in the display:
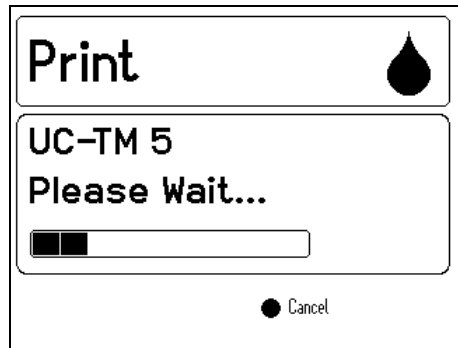
Figure 3-3   "Print" display

- The active print job can be canceled by pressing the ● key.
- "**Cancel Print**" then appears in the display.
  Select "**Back**" to continue the print job and
  "**Continue**" to cancel the print job.

3.3.2 Status information via the menu

Information about the durability and fill level of consumables can be viewed via the menu.

*   Press the ▶ key to access the menu.
    The printer switches to offline mode, i.e., printing is no longer possible.
*   Select `Status` via ▼. Confirm by pressing the ● key**.**
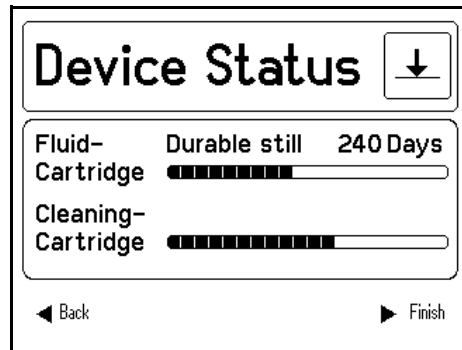*   Select `Device Status` via ▼. Confirm by pressing the ● key**.**

Figure 3-4   Device status

Fluid Cartridge

The bar indicator shows the fill level of the Fluid Cartridge. If the Fluid Cartridge is full, all the segments light up. The number of segments that are lit up decreases as the number of completed print jobs increases. If all the segments are out, the Fluid Cartridge is empty and must be changed (see "Changing the Fluid and Cleaning Cartridge" on page 4-1).
The UV-hardening fluid has limited durability. Once the expiry date is reached, the Fluid Cartridge must be changed.

The fill level of the Fluid Cartridge is monitored. When it is nearly empty, the message "`Fluid Cartridge Nearly Empty`" is displayed. Confirm this message by pressing the ● key. You can then continue printing. Have a new Fluid Cartridge ready to hand for cartridge change.

> 🛈 If the cover is opened when "`Fluid Cartridge Nearly Empty`" appears in the display, the printer display then changes to "`Fluid Cartridge Empty`", as the remaining quantity is insufficient for filling.

Cleaning Cartridge

This indicator shows the fill level of the Cleaning Cartridge. If all the segments are lit up, the Cleaning Cartridge is full and must be changed (see "Changing the Fluid and Cleaning Cartridge" on page 4-1).

Status monitor (for USB/LAN connection only)

If the printer is connected to the PC via USB or LAN (Ethernet), the status monitor on the PC can be used to view information about the status of the printer, current print jobs or the durability of consumables.

The status monitor is called as follows:

*   In the start menu, select "Settings... Printers and Faxes".
*   Select the BLUEMARK LED printer and then click on "File... Properties".
*   Switch to the "Maintenance" tab and click on the "Start status monitor" icon.
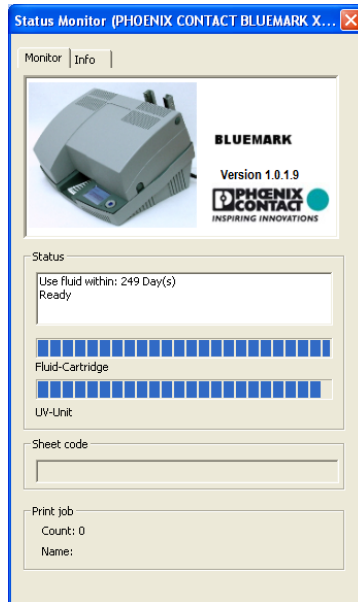
Figure 3-5   Status monitor

The status monitor has two tabs. The "Info" tab provides information about the status monitor version and can be used to create a log file (see "Creating a log file for the customer service department" on page 5-8). The "Monitor" tab displays the following:

Status

Various status messages are output in the "Status" field, such as the durability of the fluid in days or whether the cover is open, etc.

Fluid Cartridge

Under "Fluid Cartridge", the bar indicator shows the fill level of the Fluid Cartridge. If it is full, all the segments light up green. The number of green segments that are lit up decreases as the number of completed print jobs increases. If all the segments are out, the Fluid Cartridge is empty (see "Changing the Fluid and Cleaning Cartridge" on page 4-1).

The fill level of the Fluid Cartridge is monitored. Before it is nearly empty, the message "`Fluid Cartridge Nearly Empty`" is displayed. Confirm this message by pressing the ● key. You can then continue printing. Have a new Fluid Cartridge ready to hand for cartridge change.

UV Unit

As in the case of the Fluid Cartridge, this indicator shows the service life of the UV Unit. If all the segments are out, the UV power has been used up. Since the UV Unit lasts for as long as the printer, this state should not occur.

Sheet code

The sheet code is indicated here, if this is supported by the application. For example, no sheet code is transferred by MS Word.

Print job

The number and name of the print jobs that are to be printed by the printer (print queue) are shown under "Print job".

 If you no longer need the status monitor, you can remove it from the Windows task bar.

Right-click the status monitor symbol with the mouse and select „Exit".

3.4 User interface description
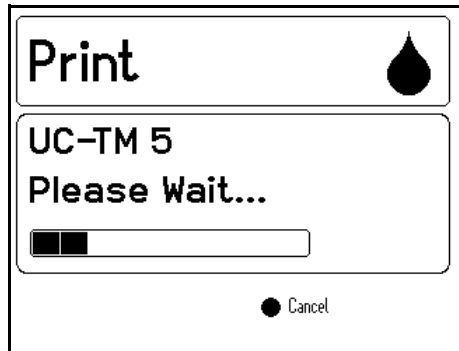
3.4.1 Display

Figure 3-6 Example of the display

The display contrast can be adjusted to your requirements (see page 3-10).

The display is split into two areas.

1 During printing, the top part shows the operating status of the printer.
When making settings in the menu, the higher-level menu item is shown.

2 During printing, the sheet type (if this is supported by the application) and information about operation appear in the middle. During operation, the selected menu item is shown here.

Reminder that a cartridge will soon need to be changed

The following icons appear next to "`Ready`" in the display once the relevant message (e.g., "Fluid Cartridge Nearly Empty") has been acknowledged.

 This icon indicates that the Fluid Cartridge is almost empty. Obtain a new Fluid Cartridge.

 This icon indicates that the Cleaning Cartridge is almost full. Obtain a new Cleaning Cartridge.
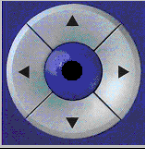
 This icon first appears 30 days before the durability of the Fluid Cartridge is set to expire. Obtain a new Fluid Cartridge.

Replacement Fluid and Cleaning Cartridge set: BLUEMARK FLUID-CARTRIDGE, Order No. 5147421

3.4.2 Keypad functions

The keypad is used for navigation in the menu in conjunction with the display. The keys have the following function:

Table 3-1   Keypad assignment

	▲	◄	►	▼	●
Menu	Scroll up	Go back to previous menu	Call main menu	Scroll down	Apply/enter
Menu: Input mask	Increase value	Move cursor left	Move cursor right	Decrease value	Apply value
Print	–	Cancel print job	–	–	Pause print job
Ready	–	Repeat last printout	Call main menu and cancel active print job	–	–
Error	–	Go back to main menu and cancel print job	Additional information about the error	–	Go back to main menu

Use the ◄ key to exit the settings menu without saving changes. Changes are only saved using the ● key.

3.5   Settings via the menu

Press the ▶ key on the keypad to access the menu. The printer switches to offline mode, i.e., printing is no longer possible.
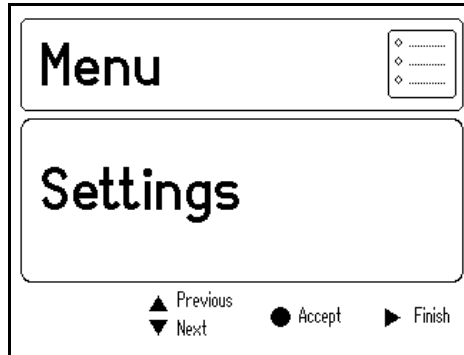

Figure 3-7   Main menu

ℹ️ | The line at the bottom shows which actions can be carried out using the keypad keys.

The menu can be used to:
– Request/modify device settings
– Carry out maintenance work
– Start a test printout
– Request status information

Active menu settings appear on a black background. When you set a different value and apply it with the ● key, this setting is active and appears on a black background.

3.5.1   Changing the language setting

The display language is set to English by default. To select a different language, proceed as follows:
• Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
• Select `Settings` via ▼. Confirm by pressing the ● key.
• Select `Device Settings` via ▼. Confirm by pressing the ● key.
• Select `Language` via ▼. Confirm by pressing the ● key.
• Select your language using the ▼ key.
• Confirm the selected language by pressing the ● key.
• The ▶ key can be used to return directly to the start screen (`Ready`).

3.5.2 Menu structure

Table 3-2   Menu structure

Menu item	Submenu	Selection		Meaning	Default	Page
`Settings`	`Device Settings`	`Language`		Language used in the display. English, German, French, Spanish, Italian, Dutch, Russian, Czech, Portuguese, and Chinese can be selected	`English`	3-7
		`High Density Print`		When `Active`, a darker print image is created, but the print speed is halved. When `Not active`, the print image and print speed are normal.	`Not active`	3-10
	`Interfaces`	`Connection`		Interface setting: `Auto`: Automatic selection `USB`, `LAN`, `Bluetooth`: Fixed setting	`Auto`	3-10
		`Printer Name`		`BLUEMARK_xxxx`: Fixed, predefined printer name, which cannot be modified. It is displayed on your PC when searching for Bluetooth devices (when the printer is switched on). xxxx represents an internal code, which differentiates between several BLUEMARK LED printers.	`BLUEMARK _xxxx`	2-15
		`LAN Parameter`	`DHCP Mode`	When `Active`, the IP address is assigned by the DHCP server. When `Not active`, the IP address must be assigned manually.	`Active`	2-11
			`Info IP Config`	Shows the current IP configuration (e.g., DHCP mode, IP address, etc.)		2-11
			`TCP/IP IP Address`	Manually assigned IP address		2-11
			`TCP/IP Subnetmask`	Manually assigned subnet mask		2-11
			`TCP/IP Standard- gateway`	Manually assigned standard gateway		2-11
		`Bluetooth PIN`		PIN assignment for Bluetooth connections	`0000`	2-14
	`Display`	`Contrast`		The display contrast is increased or decreased.	Medium	3-10

Table 3-2   Menu structure (Fortsetzung)

Menu item	Submenu	Selection		Meaning	Default	Page
`Maintenance`	`Open Device`			After confirming this menu item by pressing the ● key, the printer is prepared for opening.		5-7
	`Clean Print Head`			The printhead nozzles are cleaned.		4-4
`Test Functions`	`Testprint on UC-TM 5`			Starts printing a test text (optimum results on sheet type UC-TM 5)		2-15
	`Print Head Test on UC-EMLP (60x30)`			Prints a nozzle sample on a sheet (optimum results on sheet type UC-EMLP(60x30))		5-7
`Status`	`Device Status`			`Fluid Cartridge:` Durability in days and fill level of the Fluid Cartridge		3-3
				`Cleaning Cartridge:` Fill level of the Cleaning Cartridge		
	`Device List`			`Device:` Printer serial number		
				`MAG1:` Transport module serial number		
	`Version`			`Hardware:` Version number of the printer		
				`Firmware:` Version number and creation date of the firmware		
				`PLD:` Internal version number (for servicing)		

3.5.3 Setting the display contrast

The display contrast can be adjusted to your requirements.
- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select `Settings` via ▼. Confirm by pressing the ● key.
- Select `Display` via ▼. Confirm by pressing the ● key.
- Select `Contrast` via ▼. Confirm by pressing the ● key.
- Press ▶ to increase the value or ◀ to decrease the value.
- Confirm by pressing the ● key.

3.5.4 Setting the interface

The BLUEMARK LED can be connected to the computer via USB, Ethernet (LAN) or Bluetooth.

The BLUEMARK LED automatically selects the interface via which it receives data.

The interface can also be preset via the menu.
- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select `Settings` via ▼. Confirm by pressing the ● key.
- Select `Interfaces` via ▼. Confirm by pressing the ● key.
- Select `Connection` via ▼. Confirm by pressing the ● key.
- Select the interface (`Auto`, `USB`, `LAN` or `Bluetooth`) via ▼. For `Auto` the printer automatically selects the appropriate interface.
  Confirm by pressing the ● key.

3.5.5 Increasing the print intensity (High Density Print)

The blackness of the print image can be increased. This setting halves the print speed.
- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select `Device Settings` via ▼. Confirm by pressing the ● key.
- Select `High Density Print` via ▼. Confirm by pressing the ● key.
- Select `Active` via ▼. Confirm by pressing the ● key.

4 Maintenance and cleaning

4.1 Changing the Fluid Cartridge during startup

For safety reasons, the BLUEMARK LED is delivered with an empty fluid cartridge ("dummy fluid cartridge"). Replace this with a BLUEMARK FLUID-CARTRIDGE (Order No. 5147421, see "Inserting the Fluid Cartridge" on page 2-3).

4.2 Changing the Fluid and Cleaning Cartridge

4.2.1 Notes on the Fluid Cartridge

WARNING: Irritation due to the fluid

The fluid that is used contains substances which can cause irritation and inflammation of the skin, eyes, and respiratory system.

Do not inhale vapor and avoid contact with the skin and eyes.

If your skin comes into direct contact with the fluid, wash the affected area thoroughly with water and soap.

NOTE: For optimum durability, store the Fluid Cartridge at 0°C ... 20°C.

The Fluid Cartridge (ink cartridge) and Cleaning Cartridge (cleaning unit) must always be replaced together. They are available as a set (see "Ordering data" on page A-2).

Status of the Fluid Cartridge

The fill level of the Fluid Cartridge is monitored. When it is nearly empty, the message "`Fluid Cartridge Nearly Empty`" is displayed automatically and an icon appears in the display (see page 3-5). Confirm this message by pressing the ● key. You can then continue printing. Have a new Fluid Cartridge ready to hand for cartridge change.

If the cover is opened when "`Fluid Cartridge Nearly Empty`" appears in the display, the printer display then changes to "`Fluid Cartridge Empty`", as the remaining quantity is insufficient for filling.

Range of the Fluid Cartridge

The range of the Fluid Cartridge largely depends on the number of cleaning cycles and the ambient temperature. Cleaning cycles are required (as with all inkjet printers) to prevent air becoming trapped in the ink circuit and to clean the printhead. Please note that frequent cleaning cycles will reduce the range of the Fluid Cartridge.

The UV-hardening fluid has limited durability. Once the expiry date is reached, the Fluid Cartridge must be changed.

Requesting the Fluid Cartridge status

You can view the status of the Fluid Cartridge (fill level and durability) in the status monitor (see "Status information via the menu" on page 3-3 or "Status monitor (for USB/LAN connection only)" on page 3-3).

4.2.2 Changing the Fluid Cartridge

- Switch on the device.
- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select **Maintenance** via ▼. Confirm by pressing the ● key.
- Select **Open Device** via ▼. Confirm by pressing the ● key.
  The printer prepares for the Fluid Cartridge to be removed and the cover lock is
  opened. As soon as the cover can be opened, this is indicated in the display.

> **NOTE:** Make sure that you do not touch the printhead. This can damage the printhead or
> adversely affect the print image quality.

> **NOTE:** Make sure that you do not touch the surface of the UV Unit. This can damage the
> UV Unit.

- Press the pushbuttons on both sides of the printer (1 in Figure 4-1) and open the cover.
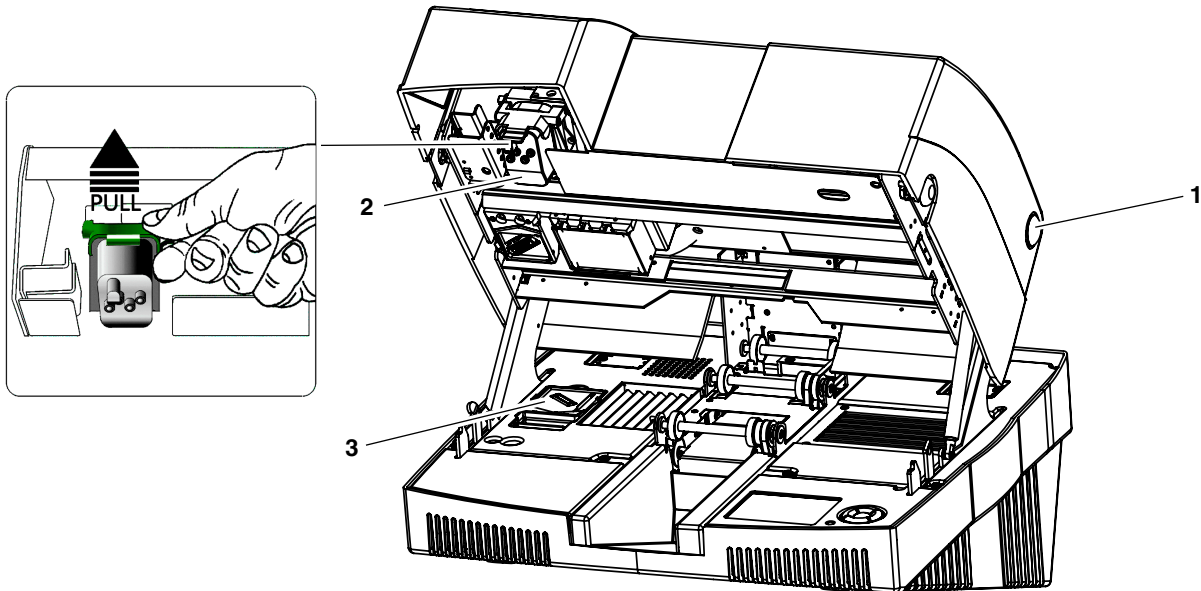

Figure 4-1   View of Fluid Cartridge (2) and Cleaning Cartridge (3)

- Release the green locking latch and remove the Fluid Cartridge by pulling it slightly
  away from and upwards out of the guide.
- Insert the new Fluid Cartridge as a reverse of the above, and press it down firmly into
  the diagonal guide rail until it engages with a click. Now press it upwards and lock the
  green latch again until this engages with a click.

> **Dispose of the Fluid Cartridge correctly**
>
> Empty Fluid Cartridges can be disposed of with domestic waste. Used Fluid Cartridges
> that are not empty must be disposed of as hazardous waste, in the same way as ink
> residue, for example. Please observe the local regulations.

- Then change the Cleaning Cartridge.
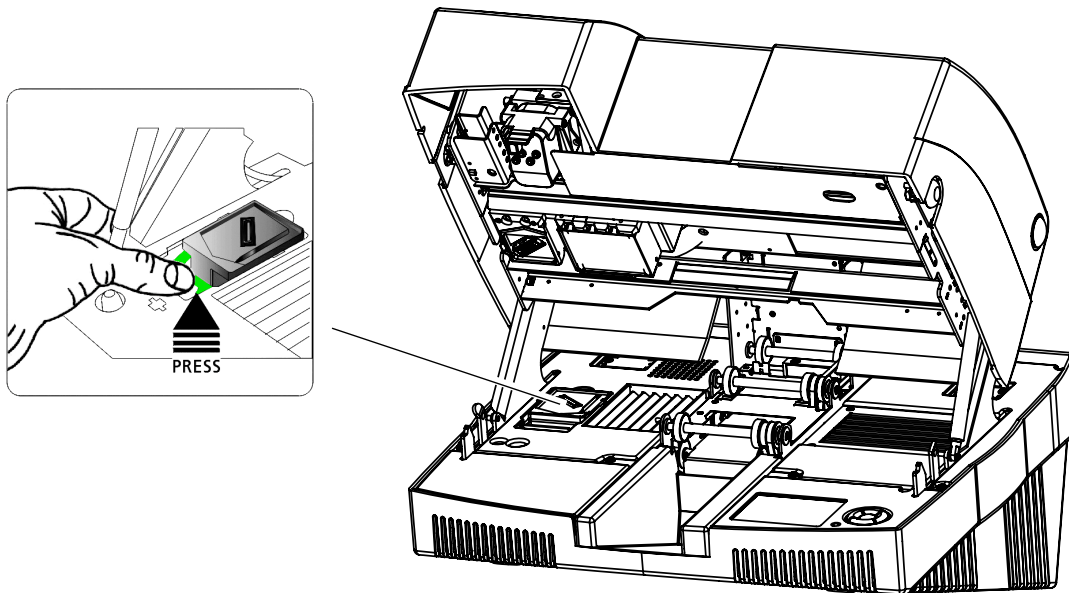
4.2.3 Changing the Cleaning Cartridge

Figure 4-2   Changing the Cleaning Cartridge

The Cleaning Cartridge is in the bottom left corner of the bottom of the device.

• Press the green latch. The Cleaning Cartridge is released slightly.

> **NOTE:** When removing the cartridge, do not touch the surface as fluid residue may still be present. Only touch the sides of the cartridge or use gloves.

• Insert the new Cleaning Cartridge and press down on it slightly until the green latch engages with a click.
• Close the cover again.

The fluid system is filled automatically.

> **Dispose of the Cleaning Cartridge correctly**
> The Cleaning Cartridge must be disposed of as hazardous waste, in the same way as ink residue, for example. Please observe the local regulations.

4.3   Cleaning the printhead

The printhead is cleaned automatically with the first print job after the device is switched on. As soon as the print image quality starts to deteriorate, individual nozzles fail or parts of a line are missing, a cleaning cycle must be performed again.

4.3.1   Initiating printhead cleaning via the driver

- In the start menu, select "Settings... Printers and Faxes".
- Select the BLUEMARK LED printer and then click on "File... Properties".
- Switch to the "Maintenance" tab and click on the "Print Head Clean" icon.

4.3.2   Initiating printhead cleaning via the menu

- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select `Maintenance` via ▼. Confirm by pressing the ● key.
- Select `Clean Print Head` via ▼. Confirm by pressing the ● key.

4.4 Preparing the printer for transport

⚠ **NOTE: Always secure the printer prior to transport**

If you want to transport the printer, secure the printhead first so that it is not damaged.

You will also need to replace the Fluid Cartridge with an empty dummy Fluid Cartridge. Ensure that the Cleaning-Cartridge is inserted. Otherwise, fluid can leak from the printhead and contaminate the printer or render it unusable.

Use the original packaging when transporting or sending the printer over long distances.

The dummy Fluid Cartridge and the original packaging can also be ordered as replacement parts (see "Ordering data" on page A-2).

Proceed as follows:

Opening the printer

- Release the cover lock via the menu.
  To do this, press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select **Maintenance** via ▼. Confirm by pressing the ● key.
- Select **Open Device** via ▼. Confirm by pressing the ● key.
  Unlocking is delayed until the fluid system is emptied. This process can take a few minutes.
  As soon as the cover can be opened, this is indicated in the display.
- Press the pushbuttons on both sides of the printer and open the cover.

Tightening the transportation safeguard screw

When the cover is opened, you will see the head of an Allen screw in the middle on the left-hand side.

⚠ **NOTE:** Do not move the printhead.

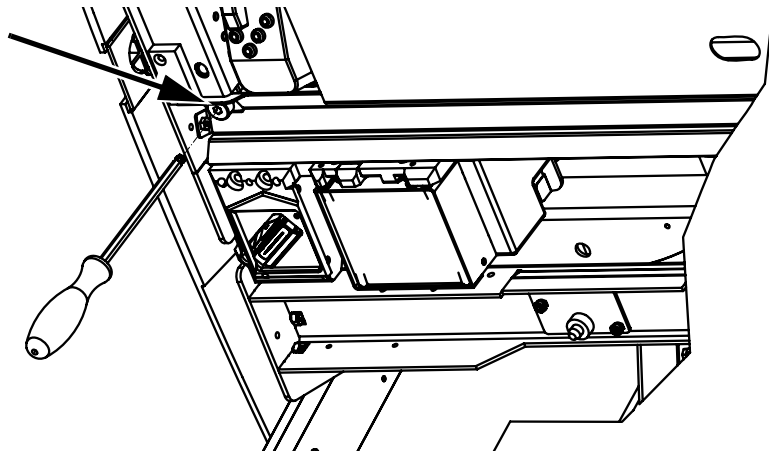The Allen screw can only engage if the printhead remains in the standby position.

Figure 4-3   Tightening the transportation safeguard screw

- Tighten the Allen screw using the hexagonal screwdriver provided.

Inserting the empty Fluid Cartridge

Now replace the Fluid Cartridge with the empty dummy Fluid Cartridge that was supplied with the printer.

- Release the green locking latch and remove the Fluid Cartridge by pulling it slightly away from and upwards out of the guide.
- Insert the dummy Fluid Cartridge as a reverse of the above, press it down firmly into the diagonal guide rail until it engages with a click. Now press it upwards and lock the green latch again until this engages with a click.
- Ensure that the Cleaning-Cartridge is inserted.
- Check if Fluid Cartridge, Cleaning-Cartridge and UV Unit are locked in place.
- Close the cover again.
- Wait a moment before switching off the printer.
  The Cleaning Cartridge must audibly seal the printhead before the printer is switched off.

Packing the printer

- Transport the printer in its original packaging.
  The original packaging can also be ordered separately (see "Ordering data" on page A-2).

5 Troubleshooting

5.1 Overview of possible errors

Table 5-1   Troubleshooting

Error	Cause	Remedy	Page
The print image has deteriorated.	The printhead is dirty or individual nozzles have failed.	Start cleaning.	4-4
	The printer is not aligned correctly.	Realign the printer.	
Sheets are not being fed through.	The sheets have become jammed.	Remove the sheet jam.	5-5
	The sheets are creased.	Use sheets that are not creased.	
The printer will not switch on.	There is a problem with the power supply connection.	Check the power supply connection.	
The printer does not print even though it is switched on.	The interface cable is not connected or the wrong interface has been selected.	Check the connection to the PC.	
	The printer is not "ready".	Exit the menu. If necessary, acknowledge any messages or remove an error and confirm.	

5.2 Error messages and information in the display

Table 5-2 Error messages and information

Category	Error messages and information	Cause	Remedy
`Error`	`Change Fluid Cartridge Durable still 0 Days`	The Fluid Cartridge durability has expired. Printing is no longer possible.	Insert a new Fluid Cartridge, see "Changing the Fluid and Cleaning Cartridge" on page 4-1.
`Error`	`Fluid System Cleaning Cartridge Full`	The Cleaning Cartridge is full. Printing is no longer possible.	Insert a new Cleaning Cartridge, see "Changing the Fluid and Cleaning Cartridge" on page 4-1.
`Error`	`Fluid System Fluid Cartridge Empty`	The Fluid Cartridge is empty. Printing is no longer possible.	Insert a new Fluid Cartridge, see "Changing the Fluid and Cleaning Cartridge" on page 4-1.
`Error`	`No Print Medium Detected Check and Clear Feeder`	There are no sheets in the transport module or a sheet has become jammed in the transport module.	Remove the sheet jam, see "Sheets are not being fed through" on page 5-5. Load the sheets in the feed tray.
`Error`	`Print Control Carriage Blocked`	Something is preventing the printer carrier from moving.	Open the cover via "Open Device" and check that there are no obstacles in the print area, e.g., pieces of sheets.
`Error`	`Print Control Initialisation Error`	The printer was switched on before removing the transportation safeguard.	See "Removing the transportation safeguard and inserting the Fluid Cartridge" on page 2-1.
		An error has occurred in the printer.	Switch the device off, then on again. If the error persists, inform Phoenix Contact.
`Error`	`Print Control Internal Error`	An error has occurred in the printer.	Switch the device off, then on again. If the error persists, inform Phoenix Contact.
`Error`	`Sheet Detection No Printstart Found`	The sheet is faulty.	Only use approved sheets.
`Error`	`Sheet Output Storage`	An error occurred when ejecting the sheets. Either the output tray is full or a sheet has become jammed.	Empty the output tray or remove the sheet jam (see "Sheets are not being fed through" on page 5-5).
`Error`	`System Error`	An error has occurred in the printer.	Switch the device off, then on again. If the error persists, inform Phoenix Contact.

Table 5-2   Error messages and information(Fortsetzung)

Category	Error messages and information	Cause	Remedy
`Error`	`Transport Module Internal Error`	An error has occurred in the transport module.	Check whether sheets have become jammed in the transport module. If so, remove them. Acknowledge the message by pressing the ● key. Switch the device off, then on again. If the error persists, inform Phoenix Contact.
`Error`	`UV Unit Lamp not Working`	The UV Unit has failed.	Inform Phoenix Contact.
`Module Status?`	`Fluid Cartridge, Cleaning Cartridge, Transport Module (MAG) Missing/Ready`	One or more modules are missing: Fluid Cartridge, Cleaning Cartridge, and transport module (MAG) In the case of the Fluid Cartridge, the empty dummy cartridge may be installed.	Insert missing module or check that it is installed correctly. Check whether the dummy cartridge has been installed instead of the Fluid Cartridge.
`Notice`	`Cleaning Active Please Wait...`	The printhead is being cleaned.	Please wait.
`Notice`	`Cover is Closing Please wait...`	The fluid system is being filled and the printhead is being cleaned.	Please wait.
`Notice`	`Device can be Opened now Caution hot Articles`	The internal fluid valves are closed and the cover is unlocked. Make sure that you do not burn yourself on the UV Unit.	Press the pushbuttons on both sides of the printer and open the printer.
`Notice`	`Device Open Caution hot Articles`	As soon as the cover is opened, the message "Device Open" appears. The UV Unit might still be hot. Be careful not to burn yourself.	Following maintenance work close the cover again, otherwise printing will no longer be possible.
`Notice`	`Fluid Cartridge Durable still xx Days`	The durability of the Fluid Cartridge will expire in xx days (see page 3-5).	Acknowledge the message by pressing the ● key and obtain a new Fluid Cartridge.
`Notice`	`Fluid System Cleaning Cartridge Nearly Full`	The Cleaning Cartridge is nearly full with used fluid and will have to be changed soon (see page 3-5).	Acknowledge the message by pressing the ● key and obtain a new Cleaning Cartridge.
`Notice`	`Fluid System Fluid Cartridge Nearly Empty`	The Fluid Cartridge will have to be changed soon (see page 3-5).	Acknowledge the message by pressing the ● key and obtain a new Fluid Cartridge.
`Notice`	`Initialisation Please Wait...`	The printer is being initialized.	Please wait.

Table 5-2   Error messages and information(Fortsetzung)

Category	Error messages and information	Cause	Remedy
Notice	**Opening Will be Prepared Please Wait...**	The internal fluid valves are closed. The cover is then unlocked and this is indicated in the display.	Please wait.
Notice	**Print Repeat?**	If the sheet becomes jammed, nothing or only part of the print job is printed. When the jam is removed, printing can be repeated without having to resend the data from the PC.	Follow the information in the display. If a sheet becomes firmly jammed in the feeder, the ▲ and ▼ keys can be used to move the flap so that the jammed sheet can be removed more easily. Remove the sheet jam, see "Sheets are not being fed through" on page 5-5.
Print	**Please Wait**	Printing in progress.	Please wait.

5.3 Removing errors

5.3.1 Sheets are not being fed through

If the sheets are not being fed through, first check that the correct sheet code has been set or whether the sheet size corresponds to the page size in the application program.

If a sheet becomes jammed, the device first attempts to eject the jammed sheet automatically.

In the event of a sheet jam, two error messages can appear in the display:

– **No Print Medium Detected. Check and Clear Feeder** (sheet feeder error)
– **Sheet Output Storage** (sheet output error)

Sheets are not being fed in correctly

No Print Medium Detected

The "**No Print Medium Detected. Check and Clear Feeder**" error message means that a sheet could not be fed in correctly. Either there are no sheets in the transport module or a sheet has become jammed in the transport module. Only print on media with complete rows, as missing rows can damage the printhead.

• Look in the feed tray at the back of the device to see whether a sheet has been fed in but not transported further.
  If this is the case, first manually remove the sheet that was fed in incompletely from the back of the device.

• Then acknowledge the error by pressing the ● key.
  The flap in the feed tray now moves up and the sheet that was removed can be loaded again.

Print Repeat?

After acknowledging the "**No Print Medium Detected**" error message, "**Print Repeat?**" appears in the display. As nothing or only part of the print job was printed due to the jam at the sheet feeder, printing can be repeated without having to resend the data from the PC.
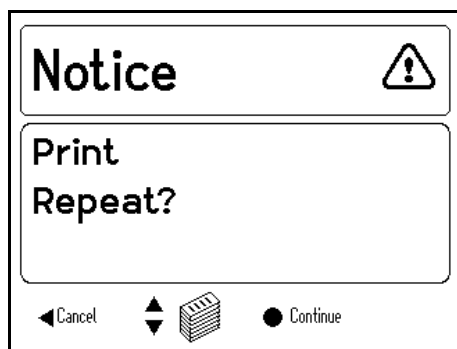


```
┌─────────────────────────────┐
│ Notice                   ⚠  │
├─────────────────────────────┤
│ Print                       │
│ Repeat?                     │
│                             │
│                             │
├─────────────────────────────┤
│ ◀Cancel   ▲ 📚  ● Continue  │
│           ▼                 │
└─────────────────────────────┘
```

Figure 5-1   Print Repeat?

• If the error message has been acknowledged accidentally by pressing the ● key, even though there is a sheet still in the feed tray, the sheet will become jammed. In this case the ▲ and ▼ keys can be used to move the flap so that the jammed sheet can be removed.

- When the jam has been removed, press ◀ `Cancel` or ● `Continue`. If `Continue` is selected, the last print job is repeated.

Sheets are not being output correctly

`Sheet Output Storage`   The `Sheet Output Storage` message means that an error occurred when ejecting the sheets. Either the output tray is full or the sheets have become jammed.

- If the sheet is jammed further inside the device, switch the printer off and on.
  After being switched on, an automatic evacuation process is carried out during device initialization where any sheets trapped inside the device are ejected.

Opening the printer in the event of no voltage (emergency release) and removing the sheet

If the above steps fail, because the sheet is jammed too tightly, the device can be opened and the sheet removed manually:

- Switch off the printer.

> **WARNING: Risk of burns**
>
> During operation the UV Unit temperature is around 70°C. If in the event of an error you want to open the printer via the emergency lock, you must wait a few minutes for the UV Unit to cool down.
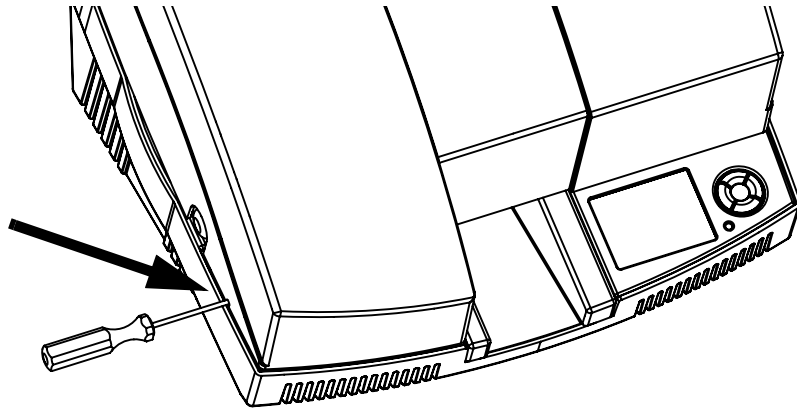
Figure 5-2   Emergency release using the hexagonal screwdriver

- To unlock, insert the hexagonal screwdriver supplied with the printer in the slot on the left-hand side of the printer.
- Press the pushbuttons on both sides of the printer and open the cover.
- Transport the sheets through manually.

5.3.2 Testing the printhead

To test whether the printhead is OK, a nozzle sample can be printed on a sheet.

A UC-EMLP(60x30) sheet (Order No. 0819343) is required for the test printout. A different type of sheet can be used for the nozzle test. However, the sample may not be printed precisely on the labels.

- Load a sheet (ideally UC-EMLP(60x30)) in the input tray.
- Press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select `Test Functions` via ▼. Confirm by pressing the ● key.
- Select `Print Head Test on UC-EMLP (60x30)` via ▼. Confirm by pressing the ● key.
- The printhead test is started.
  The result should correspond to Figure 5-3.
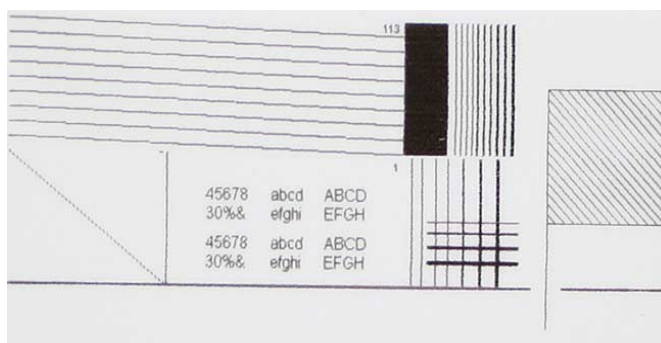
Figure 5-3   Printhead test

5.3.3 Opening the printer

- Release the cover lock via the menu.
  To do this, press the ▶ key to access the menu.
  The printer switches to offline mode, i.e., printing is no longer possible.
- Select `Maintenance` via ▼. Confirm by pressing the ● key.
- Select `Open Device` via ▼. Confirm by pressing the ● key.
  Unlocking is delayed until thethe fluid system is emptied. This process can take a few minutes.
  As soon as the cover can be opened, this is indicated in the display.
- Press the pushbuttons on both sides of the printer and open the cover.

5.4 Creating a log file for the customer service department

So that our customer service department can help you more quickly, you can generate a log file and send it to the customer service department.

- Switch on the printer.
- If error messages or information are displayed, they must be removed or acknowledged first. The printer can only create the log file when it is "ready".
- Connect the printer to the PC via USB.
- In the PC start menu, select "Settings... Printers and Faxes".
- Select the BLUEMARK LED printer and then click on "File... Properties".

Figure 5-4   PHOENIX CONTACT BLUEMARK LED Properties: Maintenance

- On the "Maintenance" tab, select the "Start status monitor" icon.
- In the status monitor, select the "Info" tab.
- Click on "Save log file".
- Select a file name and a storage location. We recommend using the printer serial number as the file name, e.g., "0824001001.log".
- Data transmission takes around 1 minute. During transmission, a blue LED lights up on the printer.
- Send the file to the customer service department via e-mail.

> If you no longer need the status monitor, you can remove it from the Windows task bar.
>
> Right-click the status monitor symbol with the mouse and select „Exit".

A   Appendix

A 1   Technical data

General	
Technology	High-speed UV hardening
Print speed	10,000 markers/h, approximately (UC-TMF 4 with 2 characters/marker)
Print area	
Horizontal	0 mm ... 76 mm
Vertical	0 mm ... 120 mm
Dimensions (W x H x D)	480 mm x 335 mm x 540 mm
Weight	24 kg, approximately
Power supply	100 V AC ... 240 V AC +6% and -10%
	0.8 A ... 0.4 A
Power consumption	80 Watt (during printing)
Fuse	2 x F4.0 A/250 V
Locking mechanism	Magnet (following unlocking via software)
Display size (L x W)	78 mm x 59 mm (320 pixels x 240 pixels)
Ambient temperature	5°C ... 35°C
Humidity	10% ... 80%
Media supply	Automatic magazine for UniCard labeling sheets
Fluid system/range	Contains 30 ml, up to 5000 sheets (The range depends on the number of cleaning cycles and the ambient temperature.)
Operating systems	Windows XP, Windows 2000, Windows Vista, Windows 7

Interfaces	
USB connection	USB 2.0
Ethernet connection	10/100Base-TX Fast Ethernet
Bluetooth	
Version	Bluetooth 2.0, range of up to 100 m
Type	EZURIO BISM II, Intelligent Bluetooth Serial Module Version II, Type TRBLU23-00200, QPN reference number B02456
Class	Class 1
Frequency	2.400 GHz ... 2.485 GHz
Transmission power	0 dBm ... 6 dBm
Receiver sensitivity	Better than -90 dB
Transmitting and receiving antenna gain	+2 dBi
Data transmission rate	Up to 300 kbps

A 2   Ordering data

Printer

Description	Type	Order No.	Pcs./Pkt.
UV printer for printing plastic labels for labeling terminal blocks, conductors, and devices BLUEMARK LED printer with solvent-free UV technology, Euro mains cable, US mains cable, USB cable, printer driver, CLIP PROJECT advanced planning and marking software	BLUEMARK LED	5147888	1

Accessories

Description	Type	Order No.	Pcs./Pkt.
Sheet slide for ejecting sheets from the output tray	BLUEMARK CARD SLIDER	5147010	1

Consumables

Description	Type	Order No.	Pcs./Pkt.
Replacement Fluid and Cleaning Cartridge set, 30 ml UV fluid, black	BLUEMARK FLUID-CARTRIDGE	5147421	1

Print media

Description	Type	Order No.	Pcs./Pkt.
UniCard sheet for labeling terminal blocks with Zack marker strip groove, 96-section, can be labeled using the BLUEMARK LED	UC-TM 5	0818108	10
UniCard sheet, 3 markers/card, with self-adhesive plastic labels, can be labeled using the BLUEMARK LED	UC-EMLP (60X30)	0819343	10

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i   For numerous other print media, please refer to the Phoenix Contact CLIPLINE catalog.

Application program

Description	Type	Order No.	Pcs./Pkt.
CLIP PROJECT advanced planning and marking software	CLIP-PROJECT ADVANCED	5146040	1

Replacement parts for transportation

Description	Type	Order No.	Pcs./Pkt.
Empty Fluid Cartridge (dummy Fluid Cartridge) for transportation	BLUEMARK X1-DUMMY-CARTRIDGE	5147492	1
Original packaging for transportation	BLUEMARK X1-CARDBOARD-BOX	5147528	1

A 3   Declaration of conformity

PHŒNIX CONTACT

09-03040.00.00

EG-Konformitätserklärung
EC-Declaration of Conformity

Hersteller / *Manufacturer*:   **PHOENIX CONTACT GMBH & CO. KG**

Anschrift / *Address*:   Flachsmarktstraße 8, D-32825 Blomberg, Germany

Produktbezeichnung / *Product description*:   **BLUEMARK LED**

(Artikelbezeichnung, / *Article description*,
Artikel-Nr. / *Article no.*)   **5147888**

Das vorstehend bezeichnete Produkt stimmt mit den wesentlichen Anforderungen der nachfolgenden Richtlinie(n) und deren Änderungsrichtlinien überein / *The above mentioned product is in line with the essential requirements of the below directive(s) and their modification directive(s):*

1999/5/EC	**Funkanlagen und Telekommunikationsendeinrichtungen** *Radio and telecommunications terminal equipment*
2004/108/EC	**EMV-Richtlinie (Elektromagnetische Verträglichkeit)** *Electromagnetic Compatibility Directive (EMC)*
2006/95/EC	**Niederspannungs-Richtlinie (NSR)** *Low Voltage Directive (LVD)*

Für die Beurteilung der Übereinstimmung wurden folgende einschlägige Normen herangezogen:
For evaluation of the conformity following relevant standards were consulted:

EN 55011:2007 + A2	EN 61000-3-2:2006	EN 61000-3-3:1995 + A1 + A2
EN 61000-6-2:2005	EN 60950-1:2006	EN 50371:2002
EN 300 328 V1.7.1	EN 301 489-01 V1.8.1	EN 301 489-17 V1.3.2

Weitere Anmerkungen (z. B. Dokumente, Prüfberichte, Einschränkungen, etc.) zur Konformitätsbewertung:
Additional remarks (for example documents, test reports, restrictions etc.,) of the conformity assessment:

Zertifikate einer benannten Stelle / *Certificates by a notified body*:

Anschrift / *Address*:

Referenz / *Reference*:

Anschrift / *Address*:

Referenz / *Reference*:

Die letzten beiden Ziffern des Jahres in dem die CE-Kennzeichnung angebracht wurde:
The last two figures of the year in which the CE marking was applied: 09
(nur einzutragen, bei der Niederspannungsrichtlinie / *only to be entered on the low voltage directive*)

☐   Diese Erklärung gilt auch für die im Anhang aufgelisteten Produkte. (wenn angekreuzt)
This declaration also applies for the products listed in the annex. (if marked with a cross)

Diese Erklärung bescheinigt die Übereinstimmung mit den wesentlichen Anforderungen der genannten Richtlinie(n), enthält jedoch keine Zusicherung von Eigenschaften. Die Sicherheits- und Einbauhinweise der mitgelieferten Produktdokumentation sind zu beachten.
This declaration certifies the conformity with the essential requirements of the indicated directive(s), it does not, however, covenant any characteristics. The instructions for safety and installation of the enclosed product documentation have to be observed.

Blomberg, 03.04.2009

Heinz Reibke
Business Unit Industrial Connection Technology
Development Clipline

Dirk Görlitzer
Business Unit Industrial Connection Technology
Vice President, Head of the Business Unit

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