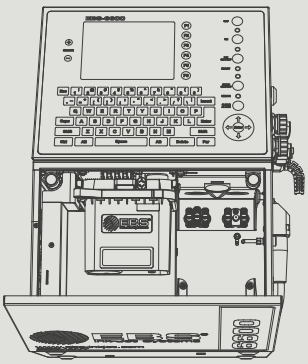
G2026/01/444_1EN

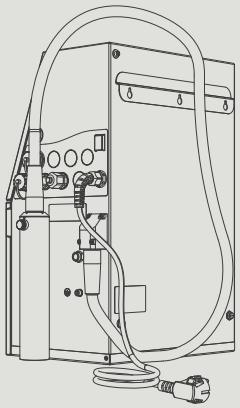
EBS® Ink-Jet Systeme

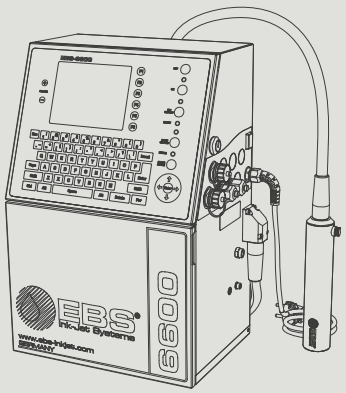
Boltmark® II

BASIC OPERATING INSTRUCTIONS EBS-6600/ EBS-6900

“INK JET” industrial printers







EN

You can find our user manuals at:
manual.ebs-inkjet.de

2026.08.18

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Dear User,

Before using the **Boltmark®II**-series printer, please read carefully the documents attached to the printer, especially the Safety Manual and the material safety data sheets (MSDS) of consumables in use.



This User Manual should be easily accessible and ready to use whenever the need to do so arises.
This version of the document includes most of the modifications implemented to the EBS printers (manufactured by **EBS Ink Jet Systeme GmbH**) up to software version **39_4N**, and the descriptions contained herein correspond to the printers on which this software version is installed.

The scope of delivery depends on the order, therefore it may happen that the actual equipment and functions of your printing system differ slightly from some descriptions or illustrations. As we need to keep pace with continual technical advancement and our customers' individual requirements we have to reserve the right to introduce changes in the design, version and technical solutions. Therefore, no data, illustrations and descriptions contained in this User Manual shall make grounds for any claims. Should your printer be provided with the details of the equipment or software that are not illustrated or described in this User Manual or should you have additional queries after having read this Manual, please contact an authorized representative of **EBS Ink Jet Systeme GmbH** for more information.

The manufacturer shall not be liable for any damage caused to the printer by improper handling or operation, that is the failure to follow this User Manual, and by the consequences of editorial or publishing errors in the Manual. The application and use of products are beyond our control and thus you apply and use the products exclusively on your own responsibility.

Original Instructions.
This document has originally been drawn up in English. Any other language versions are translations from the original version. Should any discrepancies occur, the English language version shall prevail.

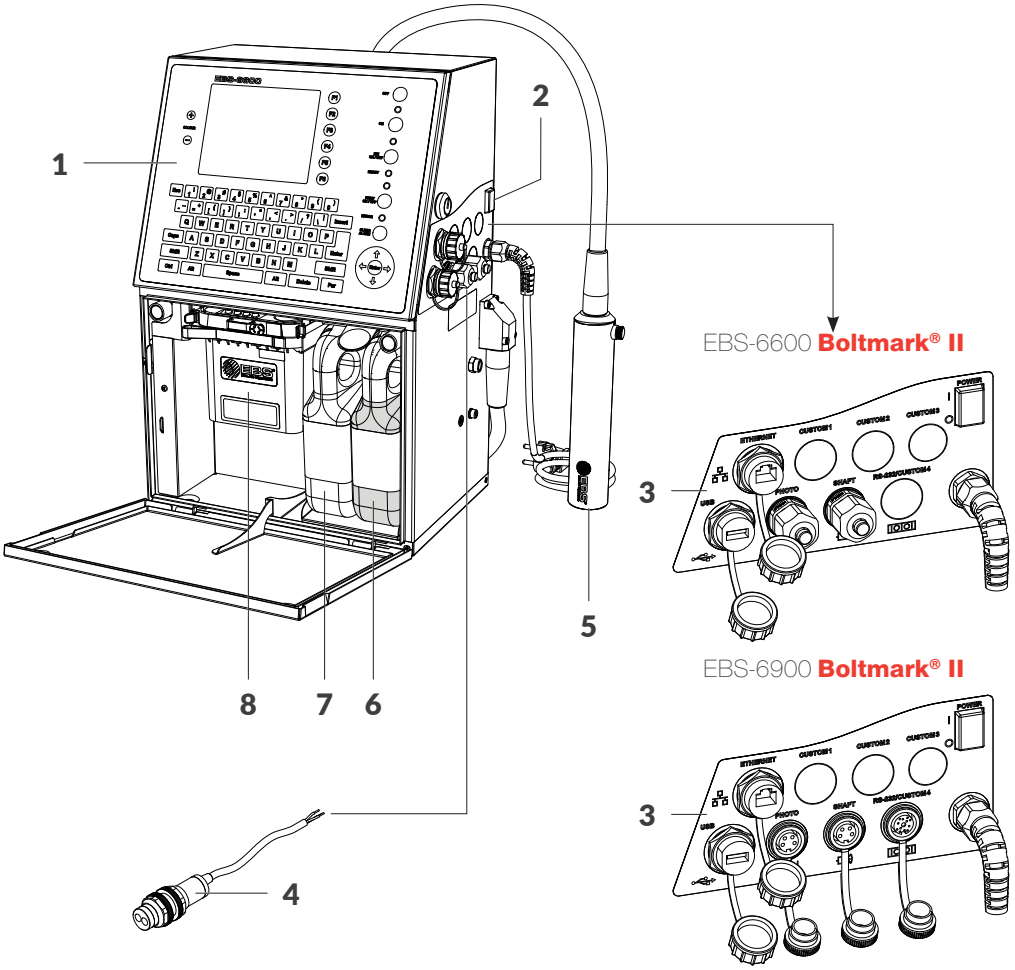
The following symbols are used in the manual:

An important note, tip, piece of information on safety.
It is advisable to strictly follow the tips.

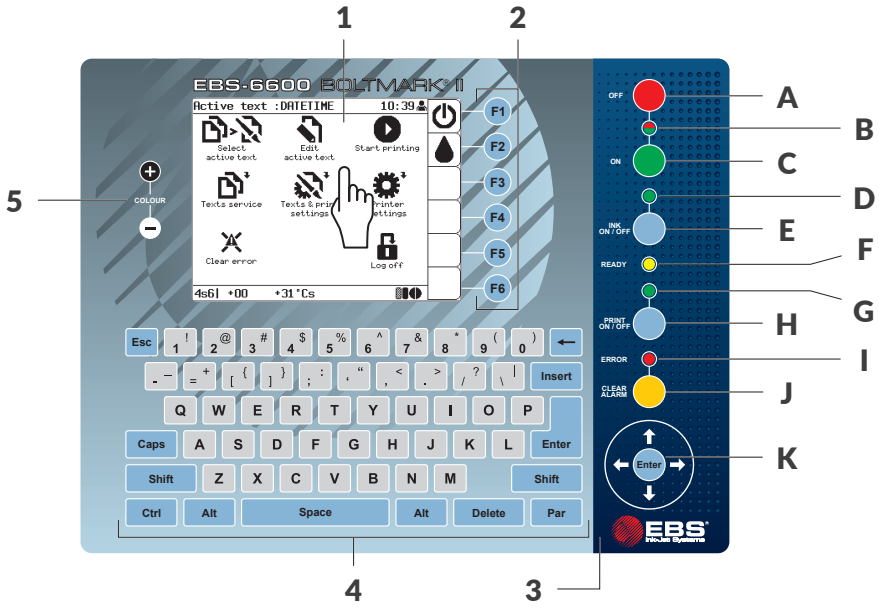
Additional information on a given subject. A supplement or a reference to the text where more details can be found.

This manual applies to the following **Boltmark®II**-series printers:
- EBS-6600 **Boltmark®II**; a low investment printer designed for simple applications,
- EBS-6900 **Boltmark®II**; an all-round printer on which the full range of options can be installed.

Printer Overview

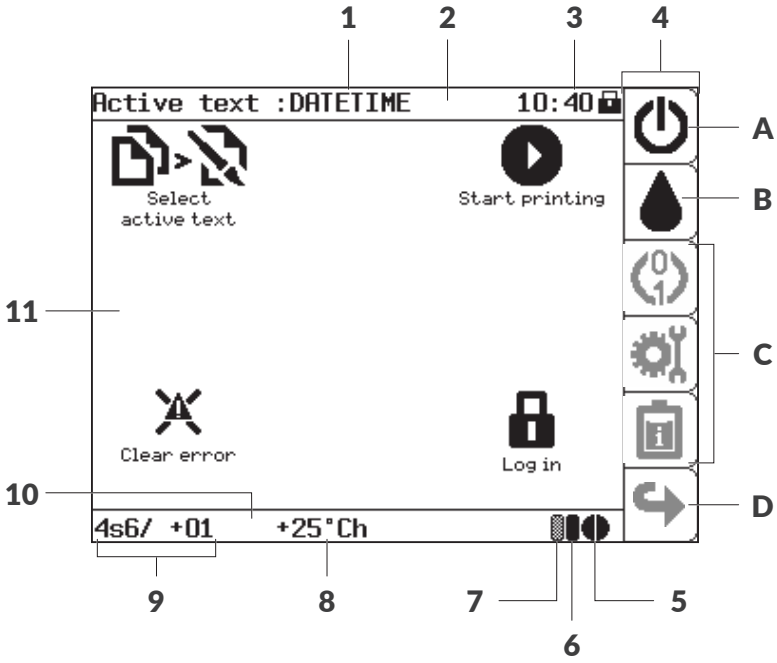


Number	Description
1	Operator panel.
2	Power switch **POWER**; a safety cut-off switch.
3	Accessories connector plate.
4	Photodetector.
5	Printhead.
6	Ink bottle (with a black cap).
7	Solvent bottle (with a white cap).
8	**iModule®**.



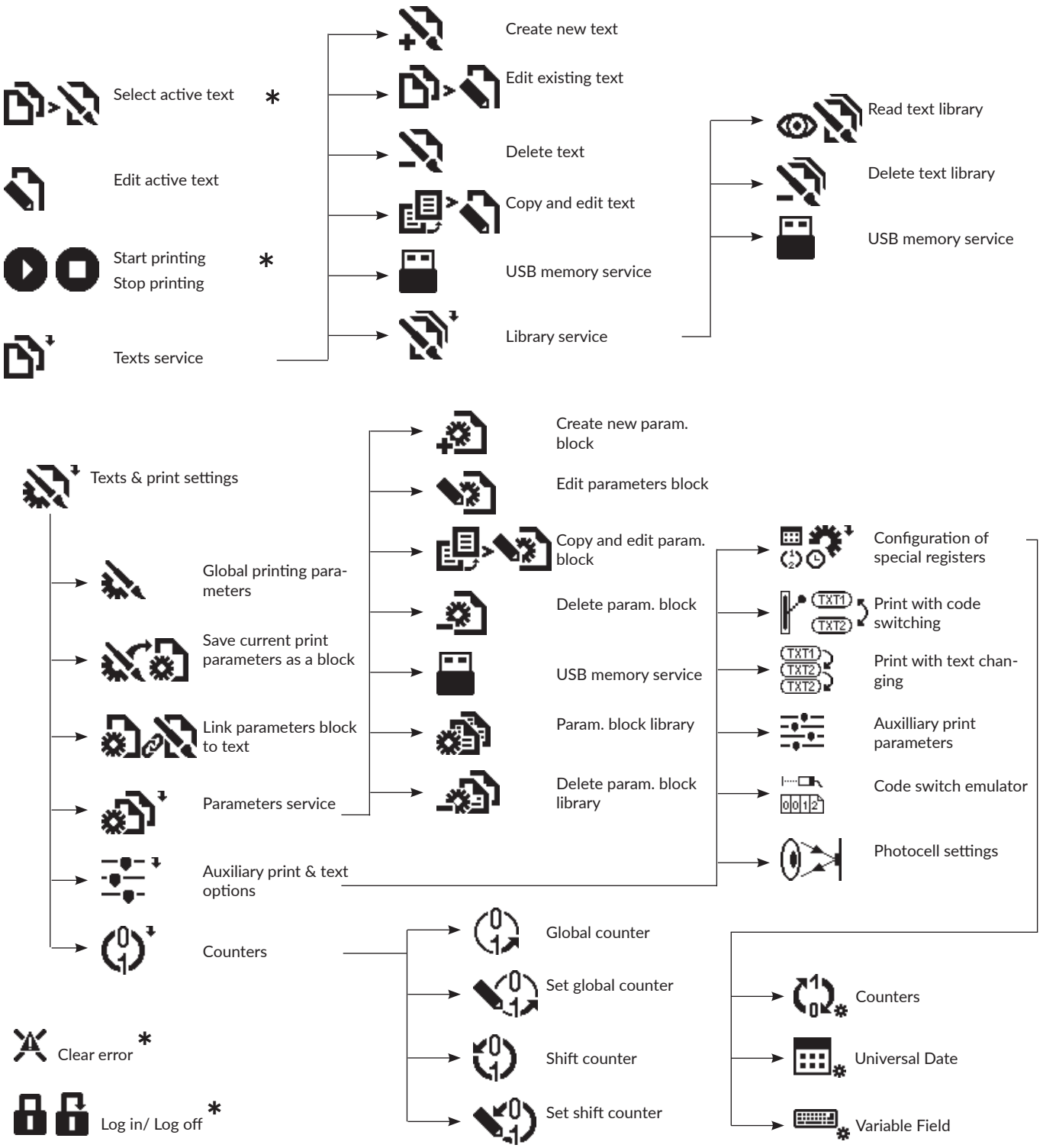
Number	Description
1	LCD touch screen.
2	Function buttons.
3	Main panel.
A	Printer shutdown button.
B	LED indicator of printer state: on (✳), off (✳).
C	Printer startup button.
D	LED indicator of ink flow in the printhead: flow started (✳), flow in the process of being started / stopped (✳).
E	Button for starting / stopping ink flow in the printhead.
F	LED indicator of readiness of the printer for printing.
G	LED indicator of printing state.
H	Button for starting / pausing printing.
I	LED indicator of alarm state.
J	Button for clearing an alarm.
K	Navigation buttons.
4	Alphanumerical keyboard.
5	LCD color change buttons.

User Interface

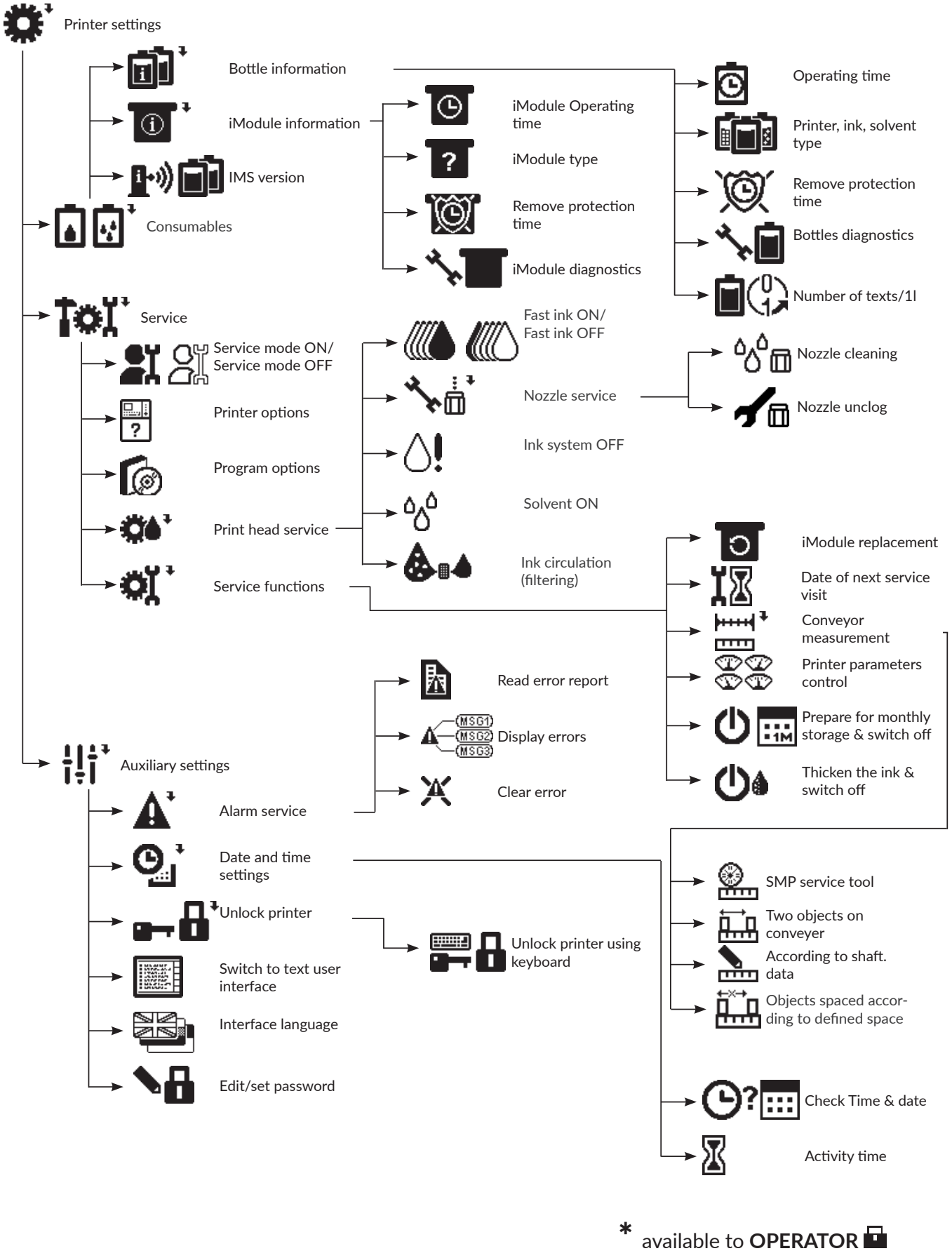


Number	Description
1	Name of the active or printed text.
2	Information bar.
3	Current time and the icon of the currently logged in user.
4	Function identification icons bar.
A	Printer shutdown icon.
B	Icon for starting / stopping Ink flow in the printhead.
C	User shortcut icons - unavailable to **OPERATOR** 🔒.
D	Navigation icon - unavailable to **OPERATOR** 🔒.
5	**iModule®** consumption / wear indicator.
6	Ink level indicator.
7	Solvent level indicator.
8	Power supply (s) and printhead (h) temperatures.
9	Printhead status.
10	Printer status bar.
11	User Interface working window.

Menu Structure



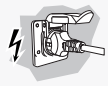
* available to **OPERATOR**



* available to **OPERATOR**

Starting The Printer Up

1



2



POWER → „|"



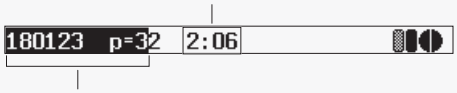
The printer enters standby mode.

3

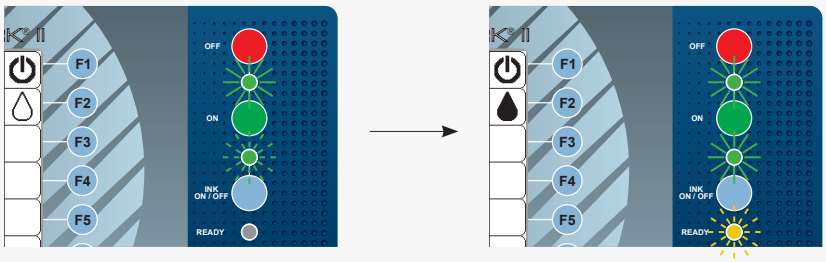


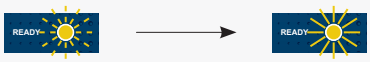
The procedure for starting the printer up follows.

Time required to complete the procedure.



Progress bar.





Printer ready for printing.

When the startup procedure is followed, the iModule® transport protection must be open. An attempt to start up the printer when the transport protection is closed, results in the following message:

VACUUM DOESN'T INCREASE, -Press solvent bottle to the limit -Check iModule transport protection and turn ink on

In such a case clear the alarm with the CLEAR ALARM button, open the iModule® transport protection and start ink flow in the printhead by pressing the icon in the function identification icon window or the INK ON/OFF button on the main panel.

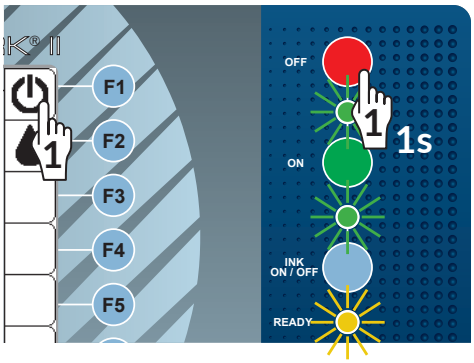
Shutting The Printer Down

Regular mode (for up to 1 week)

SWITCH THE POWER OFF
ARE YOU SURE (Y,N)?

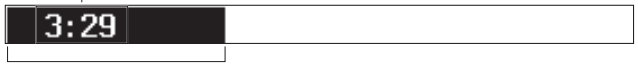
(Y=ENTER, N=ESC)





The procedure for shutting the printer down follows.

Time required to complete the procedure.

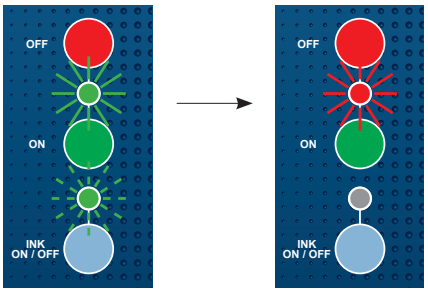


Progress bar.



SWITCHING THE PRINTER OFF .....
Press ENTER...

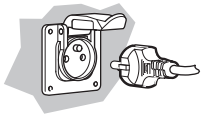




Printer in standby mode.

Turn the power off, if need be.





POWER → „O"

Emergency shutdown mode (for up to 1 hour)



Hold down.



Press once and hold down over 1s.

or



*** POWER → „O"**

* Not applicable to devices equipped with the anti-clogging supply system (**ACPS®**)

On shutting the printer down in emergency shutdown mode, wash the printhead interior (especially the gutter area) with solvent.

The printer can be shut down in emergency shutdown mode only when a clear failure of the printer occurs and a few minutes' shutting down in regular mode could cause further damage (e.g. ink spill).

Operator

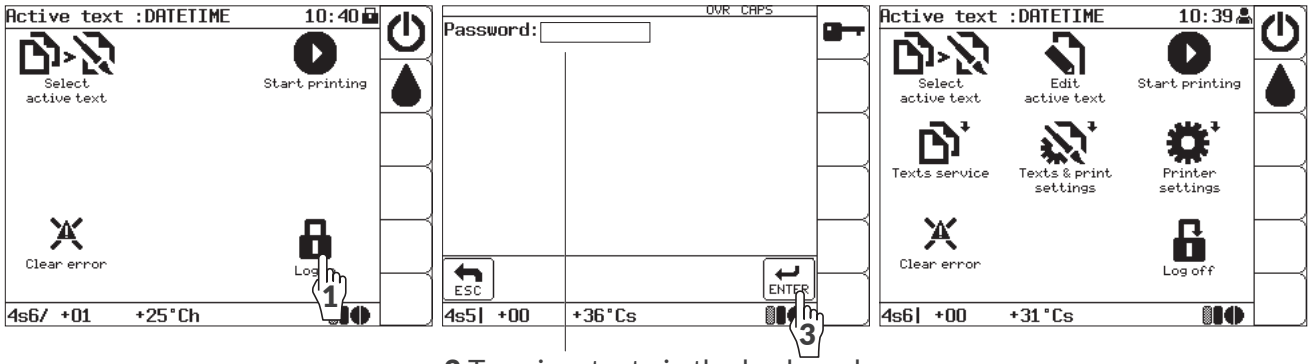
When the **Boltmark®II**-series printer starts up, the following functions available to Operator can be used, as standard:

	to select a text for printing / the active text,
	to start/stop printing a selected text,
	to log in / log out **OPERATOR** / **ADVANCED OPERATOR** / **SERVICEMAN**,
	to stop / start ink flow,
	to clear an alarm,
	to shut the printer down.

To gain access to a greater number of functions described further in this document, the user should log in as:

- **ADVANCED OPERATOR**,
- **SERVICEMAN**.

Logging In



2 Type in a text via the keyboard.

For security reasons, the default password for the ADVANCED OPERATOR user type must be changed during the first startup procedure. Until any changes are made to user management, information about the default password for the ADVANCED OPERATOR user type should be retained.

*The default password of **ADVANCED OPERATOR** is **EBS**.*

Navigation Menu

Touch panel

Types of menu icons:

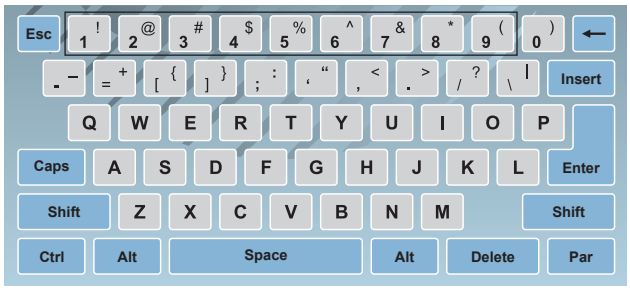
- functions, e.g.
- function folders - the functions are marked with , e.g.

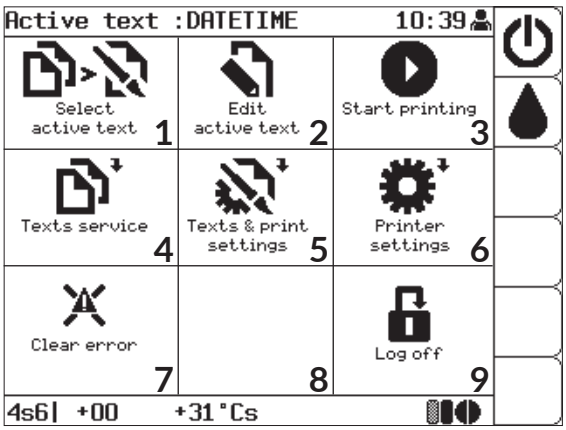
Additional navigation icons:

Buttons / Icons	Function	Location
	to return to the previous menu level	in working window
	to go to the main screen	on function identification icon bar
	to return to the recently used menu level (from the main screen)	on function identification icon bar

Keyboard

The working window is divided into 9 sections. Every section is associated with a keyboard digit; the digit works as a hot key.





Buttons / Icons	Function
4	to open folder ,
8	no response - no function or folder in section **8**,
	to move among sections, to highlight a selected section,
Enter	to perform an operation in the highlighted section,
Esc	to return to the previous level.

Creating A New Text

Possibilities for creating a new text.

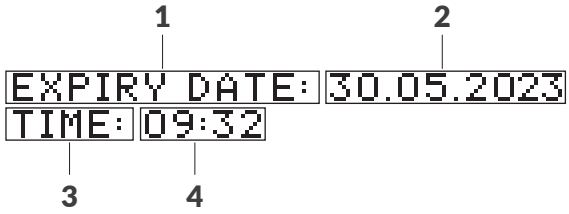
Text contents:

- special registers: the time, the date, the expiration date, object counters, etc.
- bar codes: standard and 2D “Data Matrix” codes
- graphics: built-in/created by a user (with a graphics editor)

Text profiles:

- texts can be edited more easily because they are adjusted to a required configuration
- print quality and printing speed are optimized

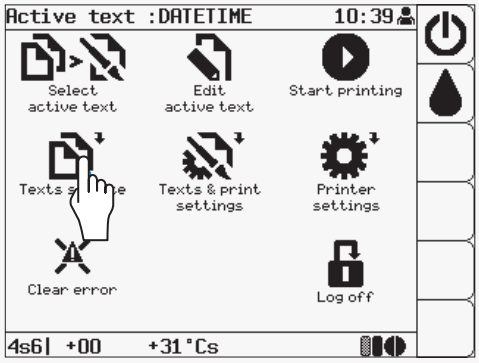
All printer operation stages are described based on an example:



The text consists of 4 subtexts:

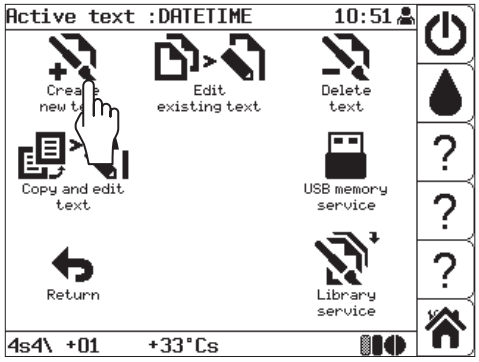
	Subtext name	Function
1	Text.	Static text.
2	Special register **Date+offs.**	Dynamic text. Current date + the value of the **Offset** printing parameter.
3	Text.	Static text.
4	Special register **Time**.	Dynamic text. Current time.

1



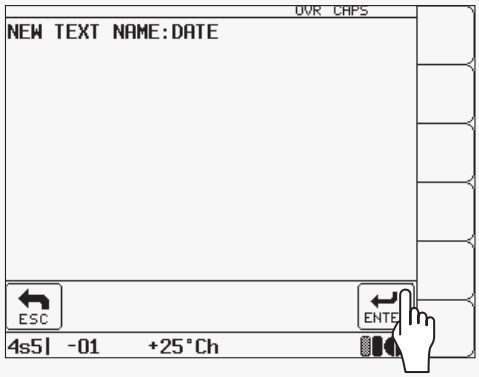
Open folder .

2



Select .

3

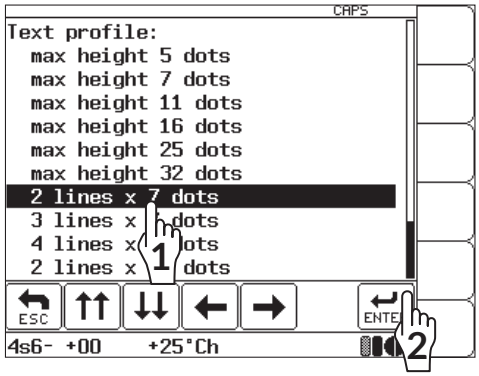


Type in a text name.

Up to 8 characters - capital / small letters, digits and characters excluding . , / \ ; : * < > | [ ] { } = +, *e.g.* DATE.

Confirm by pressing ENTER .

4

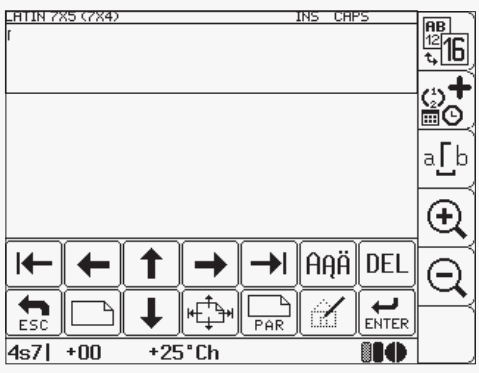


Select a text profile.

The highlighted profile **2 lines x 7 dots** is optimal in this case.

Confirm by pressing ENTER .

5

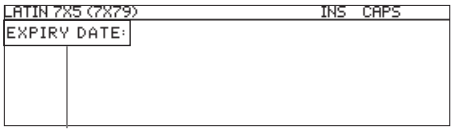


Editor - a new empty window.

6 PAR **Set parameters for subtext 1.**

Type	:	Text
Char. set	:	Latin 7x5
Typeface	:	Normal
Chr. width	:	Proportional
Distance	:	2
Rotation	:	None
Spec. reg.	:	None
Front dist	:	0
Back dist	:	0

ENTER



Type in a text via the keyboard.

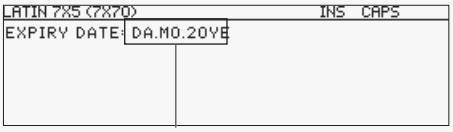
→ **Create subtext 2 to the right of the previous one.**

7 ▶Date+offs.▶ ENTER

PAR The other parameters of subtext **2** - as for subtext **1**.

*The expiry date (the **Date+offs.** special register) is printed correctly when the **Offset** and **Offset interv** printing parameters are set.*

Use the special register creator to set up subtext **2** as a **Date+offs.** special register.

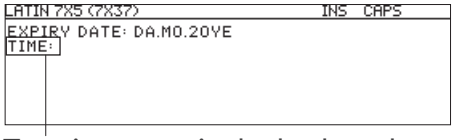


Type in a text via the keyboard.

↓ **Create subtext 3** below the previous one.

8 PAR **Set parameters for subtext 3** the same as for subtext 1.

ENTER



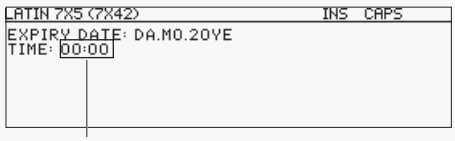
Type in a text via the keyboard.

→ **Create subtext 4 to the right of the previous one.**

9 ▶Time▶ ENTER

PAR The other parameters of subtext **4** - as for subtext **2**.

Use the special register creator to set up subtext **4** as a **Time** special register.



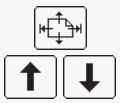
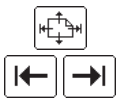
Type in a text via the keyboard.

*In the subtexts where special registers (**2** and **4**) are used, letters typed in for the date and digits typed in for the time are replaced with values during printing (e.g. DA - tens and units of the 2-digit day number in month, MO – tens and units of the 2-digit month number in year, YE – tens and units of the 2-digit year number).*

10 ENTER To confirm the end of text editing (the text is saved to text library).

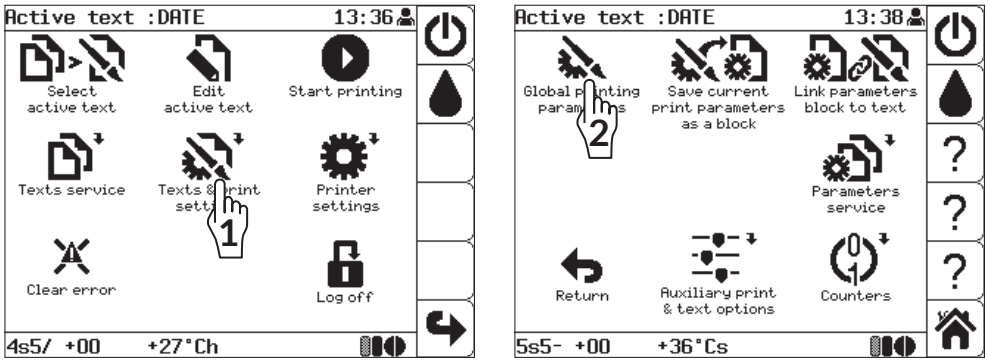
The above example contains only certain options out of those available in the text editor.

Other useful functions:

Buttons / Icons	Function
	To inform about the current profile of the edited (highlighted) text and the possibility of changing the profile.
	Special register creator; to set up a selected subtext as a special register. If the selected subtext is a special register, then the icon indicating the type of special register is displayed in place of the creator icon in the editor window: **Up counter**  , **Down count.** , **Time** , **Date** , **Spec. chan.** , **Univ.count.** , **Univ. date** , **Date+offs.** , **WILL Date** , **Variable Field** , **Text content** 
	To switch over the space display mode. The space characters can be displayed as the prearranged character ⌈ (as standard) or as empty columns. Regardless of the display mode enabled, spaces are always printed as empty columns.
	To increase the preview scale of the edited text.
	To decrease the preview scale of the edited text.
	To shift the cursor to the first or last character of a subtext.
	To shift an entire subtext by one pixel up or down (or to shift a subtext to the previous / following line).
	To shift a subtext by one subtext left or right.
Insert	To switch over the character insertion mode: **INS**ert / **OV**e**R**write.
DEL	To delete the subtext character at the current cursor position.
Ctrl Delete	To delete the entire current subtext.
	To open graphics editor (available only when **Type** = **Graphic**).
	To select a language.

Setting Printing Parameters

Printing parameters apply to the active text. The selection of another text as the active text does not involve any change in printing parameters on condition that the new active text is not linked with a parameter block. If the new active text is linked with a parameter block, the parameters contained in the linked block are read in when the new text is selected as active.



Buttons / Icons	Function
↑↑ ↓↓	To scroll the screen.
↑ ↓	To go to the previous / next item.
← →	To change the parameter settings (the values of numerical parameters can be typed in via the keyboard).
ENTER	To confirm.
ALT	To select a text from the library (it applies to the **Active text** parameter).

Immediately after the printing parameters have been edited (and the modifications confirmed by pressing the ENTER icon) they can be saved to a block. The suggested name for a parameter block is the same as the name of the active text.

To avoid the need for setting parameters for every text, you can save printing parameters as a block and then link a text with the parameter block by pressing ▶.

Parameter	Function
Active text : DATE	The name of the active / printed text.
Linked param. :	The name of a parameter block linked with the active text.
Height (pix) : 16	The height of the active / printed text; it is given as a number of dots.
Matrix height : LARGE	A rough adjustment of print height by selecting one of the predefined height settings.
Print height : 100%	Recommended setting: **100%**. A description of the parameter is given in The **Boltmark®II**-series Printers User Manual.
Speed Level : **SLOW** 29,2 m/min	A speed level is selected for obtaining the optimum print quality (**SLOW**) or the maximum traveling speed of the conveyor belt (**FAST**). The parameter also gives the maximum traveling speed of the conveyor belt for a selected printing algorithm. For **Generator** = **GEN**, the a/m speed is the maximum value of the **Cnv spd m/min** parameter.

Parameter	Function
Generator : **GEN** 10,020 m/min **SHAFT** 0,000 m/min	The source of timing signals: an internal generator or a enkoder. The parameter also gives the current conveyor belt travel speed. For **Generator** = **GEN**, the a/m speed is close to the value of the **Cnv spd m/min** parameter. For **Generator** = **SHAFT**, the a/m speed equals conveyor belt travel speed measured.
Resol. dot/cm : **20** (20,00) 0%	The setting of print resolution in the horizontal direction. For **Generator** = **SHAFT**, except for the resolution setting, also real resolution and the difference between resolution setting and real resolution [in %] are given.
Cnv spd m/min : 10,0	For **Generator** = **GEN**, conveyor belt travel speed is given. The speed cannot be higher than the value given via the **Speed Level** parameter.
Enc const p/m : **10000** (xx)	The real (and virtual) number of pulses transferred by the enkoder per unit of length. To adjust printing speed to conveyor belt travel speed (if **Generator** = **SHAFT**).
Vert. direct. : **STANDARD**	Vertical direction of printing: standard, diverted.
Space : 2,0 mm	Space between the beginning of an object and the beginning of the print.
Space2 : ---	Optional parameter.
Text rpt. : 1	The number of reprints of a text on an object.
Rpt.dist. : 30,0 mm	Distance between the beginnings of successive reprints (if **Text rpt.** > **1**).
Conv. direct. : LEFT	The direction (left, right) in which objects move in front of the printhead.
Offset interv : Day	A unit by which the date to be printed is shifted relative to the current date. The parameter is used to print a so called expiration date by the application of the special register **Date+offs.**.
Offset : 100	A value by which the date to be printed is shifted relative to the current date; it is given in units selected with the printing parameter **Offset interv**. The parameter is used to print a so called expiration date by the application of the special register **Date+offs.**.
RollTimeHH:MM : **00:00**	Setting forward the time at which the date change occurs, from noon to another time during the day. The parameter is used to print the date by means of the special register **WILL Date**.
Counter delta : 1	Increment for an incremental counter or decrement for a decremental counter. The parameter is used by the **Up counter** and **Down count.** special registers.
Row repetit. : 1	The number of reprints of every column of a text.
Print every n :	Optional parameter.
Mode : **NORMAL**	To activate printing at maximum speed. The parameter is available only for **SERVICEMAN** ⚙.

*Not every combination of the **Matrix height, Speed Level and Height (pix)** parameters is permitted. If a forbidden combination is selected, an error message is displayed. To display the whole message, select the*  *icon on the function identification icon bar.*

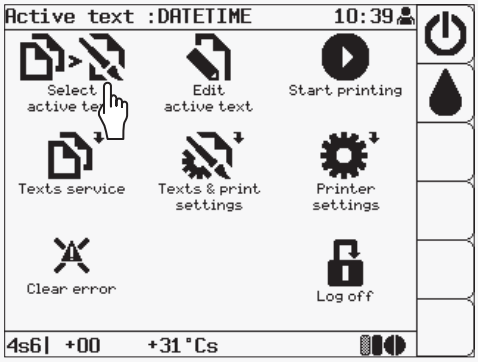
If you find it difficult to set the global printing parameters, it is recommended that the default parameter settings be applied by pressing the  *icon. Most of texts can be printed at the default settings of the printing parameters.*

*If **Generator = GEN**, an object must move in front of the printhead so that a correct print is made. Otherwise, a vertical bar is printed.*

*If **Generator = SHAFT**, the printhead will print only when a rotary encoder is connected to the conveyor belt and the belt travels.*

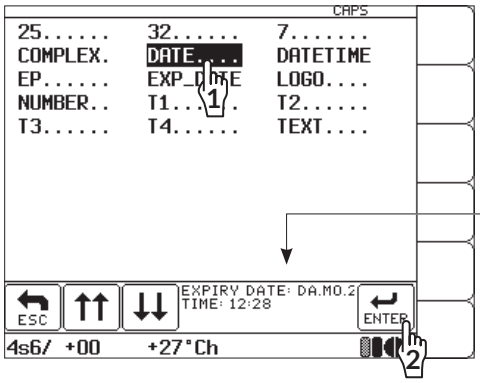
Selecting An Active Text

1



Select .

2

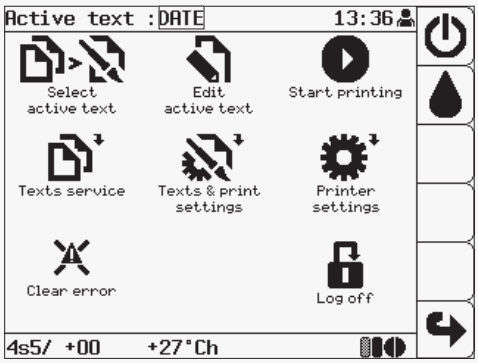


Select a text from the library.

Preview of the selected text.

Confirm by pressing ENTER.

3



The name of the active text is displayed on the information bar.

Start / Preview / Finish Printing

Start Printing

1

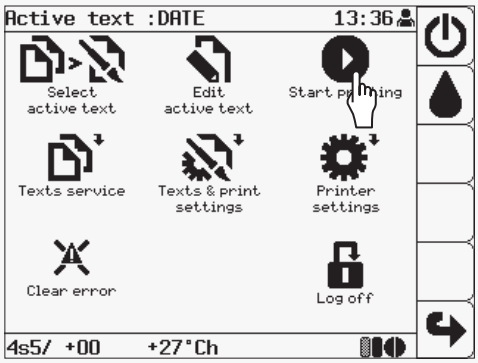


To start printing the active text.

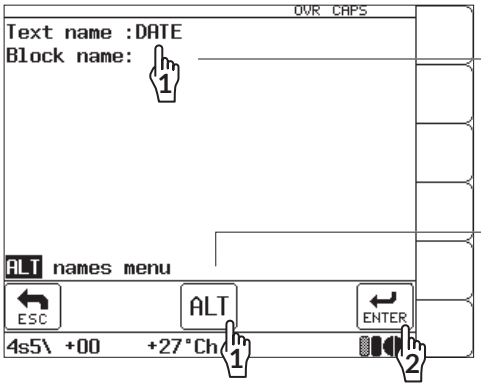
The button can be used regardless of what screen is currently displayed (*e.g.* while a text is edited).



To start printing the active text or **any text selected from the library**.



2

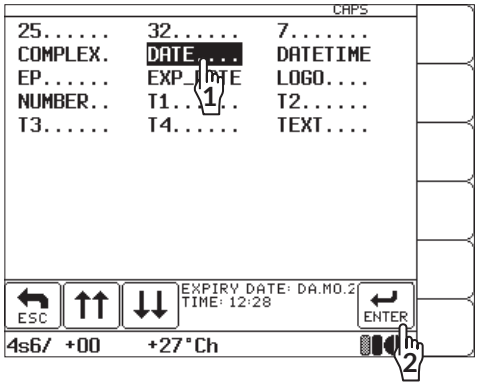


Type in a text name.

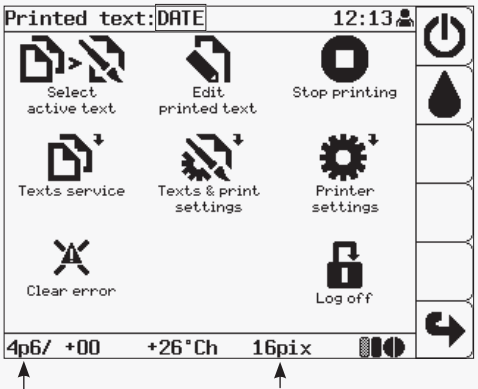
Up to 8 characters - capital / small letters, digits and characters excluding . , / \ ; : * < > | [ ] { } = + , *e.g.* DATE.

or

Select a text to print from the library.



3

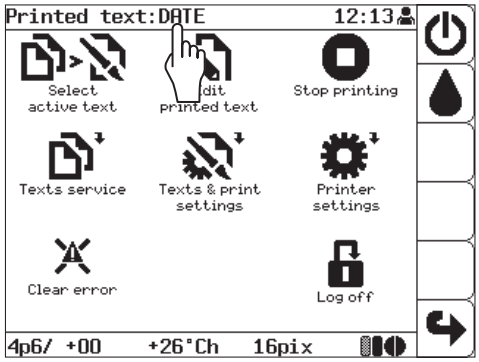


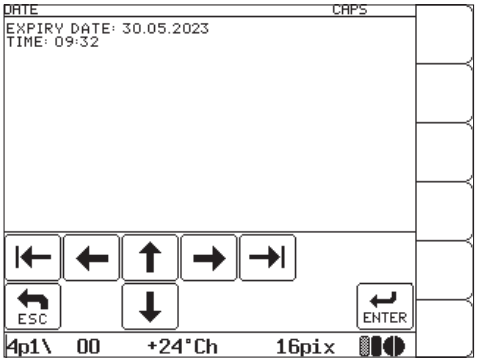
The name of the printed text is displayed on the information bar.

p - print

Height (in dots) of the printed text.

Previewing the printed text





Finishing printing

Pausing printing in regular mode

Select .

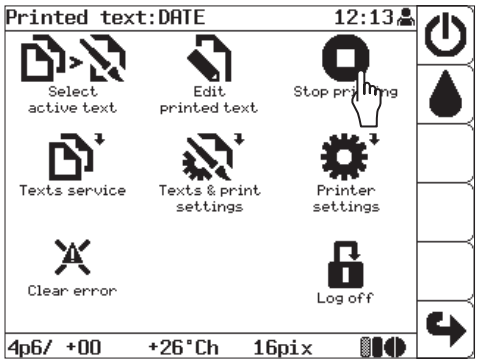
Printing pauses after printing of the current text has finished.

STOP PRINTING

ARE YOU SURE (Y,N)?

(Y=ENTER, N=ESC)

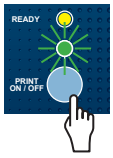
Confirm ENTER.



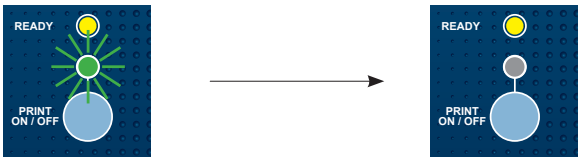
Pausing printing in immediate mode

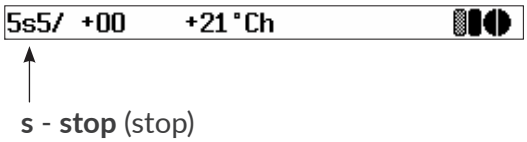
Select PRINT ON/OFF.

Printing pauses immediately. The button can be used regardless of what screen is currently displayed (*e.g.* while a text is edited).



Signaling of pausing of printing.





s - stop (stop)

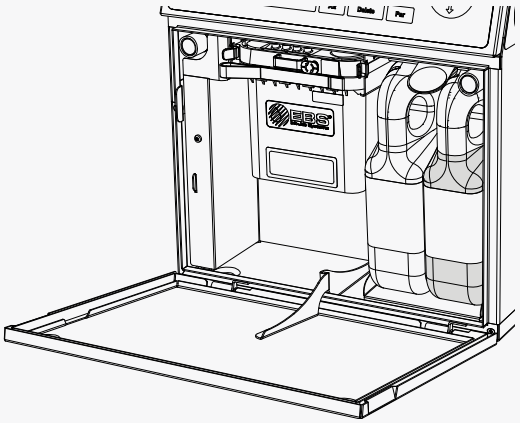
Replacing A Bottle

Emptying of a bottle is signaled with an audible alarm signal, the **ERROR** LED on the operator panel illuminating blinking red, the display background flickering red and an error message:

SOLVENT LACK
or
SOLVENT: EMPTY BOTTLE

INK LACK
or
INK: EMPTY BOTTLE

The bottle should be replaced immediately after the above signaling has occurred. The operation can be performed also during printing. Otherwise, if the correct ink parameters cannot be maintained or if the ink level in iModule® reduces too much, printing is paused, and the printer is shut down.

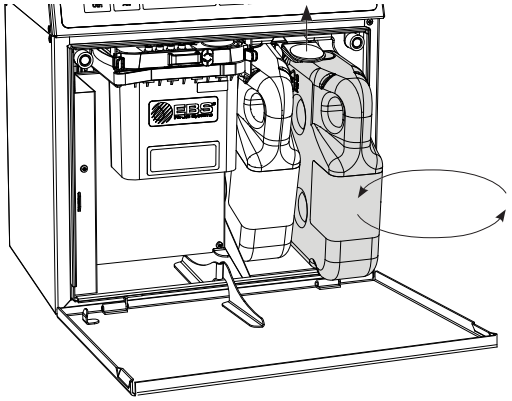
1 

Open the consumables compartment door.

During bottle replacement, exercise caution to avoid injury from the needles forming part of the bottle connections. Avoid handling near the connection needles. The location of the needles is indicated on the warning label located on the rear wall of the consumables compartment, below the bottle connection.



2 **Lift the latch.**



3 **Take the empty bottle out**; signaling:
INK: NO BOTTLE
or
SOLVENT: NO BOTTLE

4 **Insert a new bottle**; signaling:
CODE VERIFYING: WAIT 10 SECONDS PLEASE
and then
BOTTLE ACCEPTED

5 **Close the consumables compartment door.**

The instructional video for replacing the ink/solvent bottle is available on the company YouTube channel – ebsinkjetsystems (see the QR code with the link).

Maintaining The Printhead

While maintaining the printhead, check the printhead interior for cleanliness approximately once a month and remove dirt, if need be.

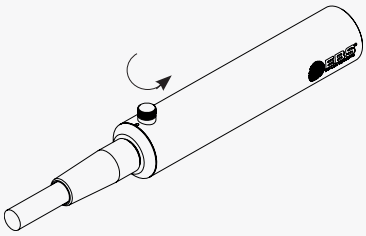
Any operations that involve the removal of printhead cover during printer operation must be performed exclusively by the manufacturer's authorized service staff or a user trained by the manufacturer's authorized representatives in performing such operations. An untrained user can remove printhead cover exclusively when the printer is disconnected from the electric mains.

Tools and protective equipment required:
- a sprayer with solvent,
- a compressed air gun (optionally),
- a drip pan of metal or absorbent material,
- safety goggles,
- protective gloves that are resistant to ink / cleaner,
- protective clothing.

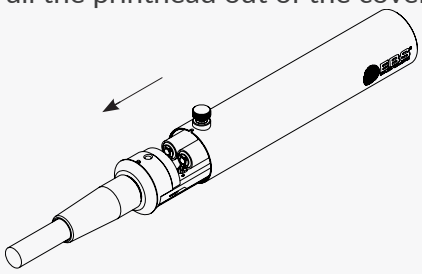


1 **Remove the printhead cover:**

Loosen the screw that fastens the printhead cover.



Pull the printhead out of the cover.

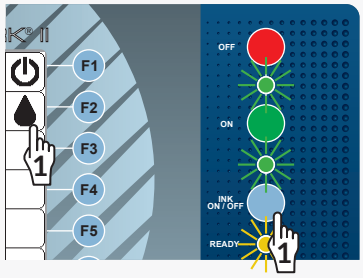


2 **Check the printhead interior for cleanliness.**

If no dirt needs removing from the printhead, then insert the printhead into the cover, screw home the fastening screw and resume normal operation.

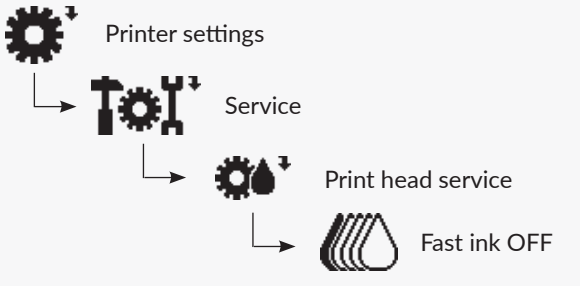
3 **Stop ink flow in the printhead.**

Stopping in regular mode.



Ink flow is stopped when the ink flow LED does not illuminate.

If the printhead needs to be cleaned quickly, follow the brief procedure for stopping ink flow.

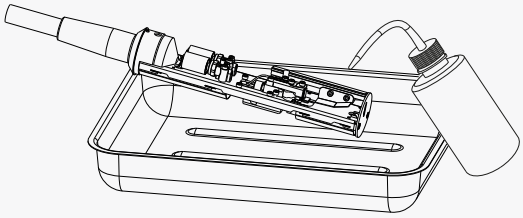




4 Place the printhead in a metal vessel (a drip pan).

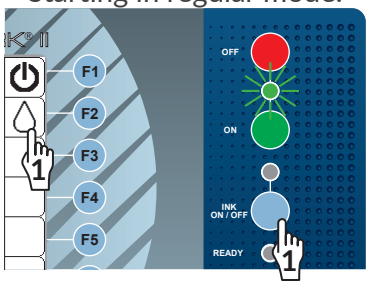
5 Remove any remnants of ink from the electrodes, the nozzle and the gutter area with solvent (with a wash bottle).

A compressed air gun can also be used.



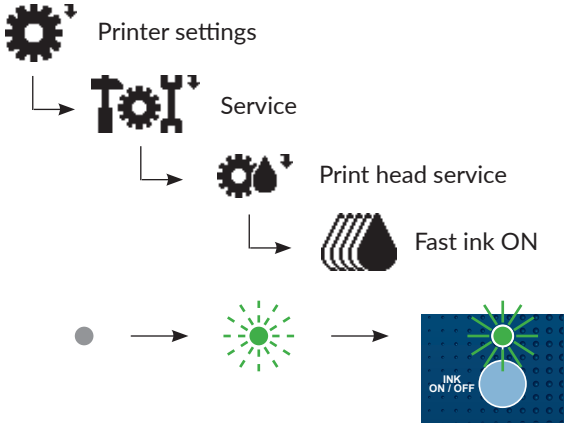
6 **Start ink flow in the printhead.**

Starting in regular mode.



Ink flow is activated when the ink flow LED illuminates.

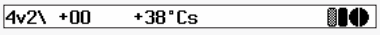
If the printhead needs to be started quickly, follow the brief procedure for starting ink flow.



7 **Insert the printhead into the cover**, screw home the fastening screw and resume normal operation.

While installing the printhead cover make sure that the fastening screw is screwed home firmly; the screw provides not only mechanical fastening but electrical connection between the cover and the printer housing, as well.

*The printhead is equipped with a sensor that detects the removed cover condition. On loosening the screw that fastens the printhead cover, printing pauses automatically and the printer enters service mode (**v**).*



Printing cannot be resumed until the cover is reinstalled and the fastening screw is screwed home.

Version Review

Instructions version	Date of publication	Version of main control program
20170328#1.0EN	28.03.2017	36_0A
2017/05/04#1.1EN	04.05.2017	36_0A
2018/02/27#2.0EN	27.02.2018	37_1A
G2026/01/444_1EN	**18.08.2026**	**39_4N**

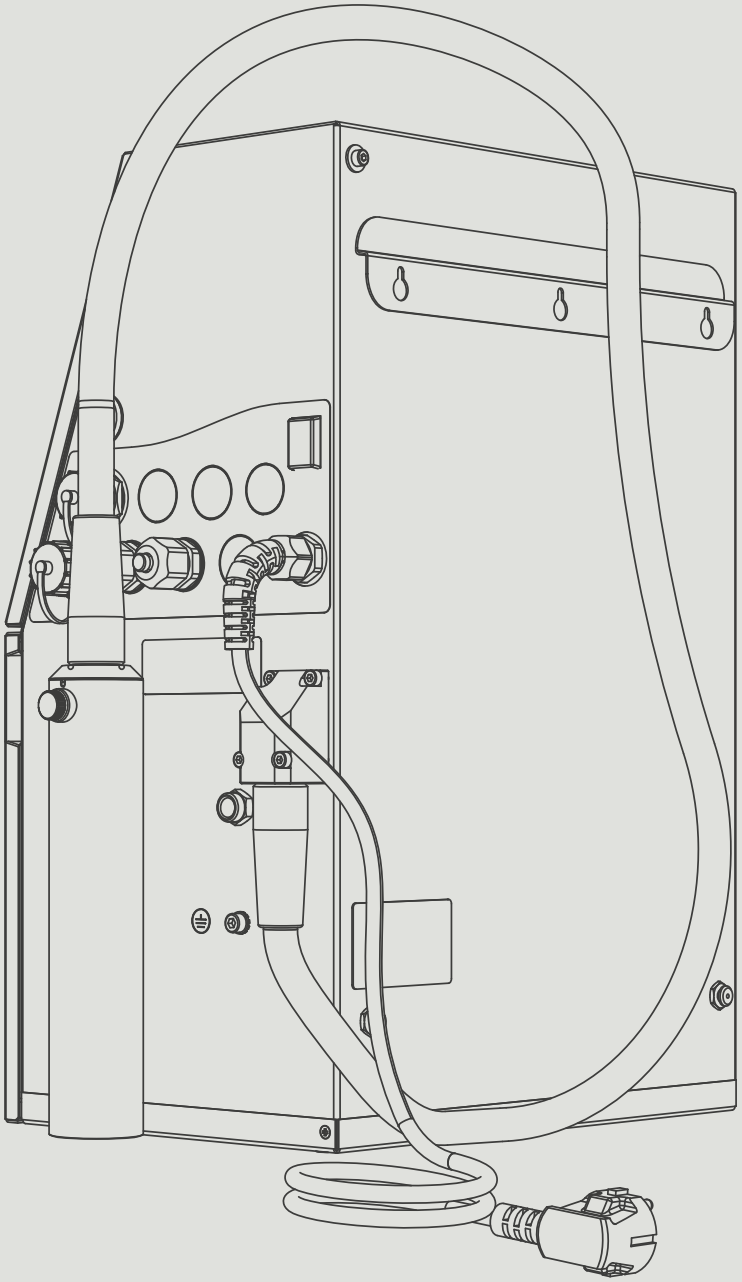
Notes

Notes

Notes

G2026/01/444_1EN

EN



Management and International Affairs:
EBS Ink Jet Systeme GmbH
D-51588 Nümbrecht-Elsenroth, Alte Ziegelei 19-25, **Germany**
+49 2293 9390 / +49 2293 9393 / www.ebs-inkjet.de / mail@ebs-inkjet.de

Manufacturing, Distribution and Service:
EBS Ink-Jet Systems Poland Sp. z o.o.
ul. Tarnogajska 13, 50-512 Wrocław, **Poland**
+48 71 367 04 11 / +48 71 373 32 69 / www.ebs-inkjet.pl / bok@ebs.ink

Sales, Logistics and Service in the USA:
EBS Ink-Jet Systems USA, Inc.
Libertyville, IL 60048, 1840 Industrial Drive, Suite 200, **USA**
+1-847-996-0739 / +1-847-996-0843 / www.ebs-inkjet-usa.com / sales@ebs-inkjet.com

Sales, Logistics and Service in China:
EBS Ink-Jet Systems (Shenzhen) Co., LTD
Unit 608, Building Jin-Hui-Qiu No.5, Langshan 2nd Road, Gaoxin bei qu, Nanshan District, 518057 Shenzhen, **China**
深圳总公司地址：深圳南山区高新北区朗山二路5号金汇球大厦六楼608
+86 400-0606-678 / +86 755-23400676 / +86 755-23400376 / www.ebs-inkjet-china.com / office@ebs-china.com

2026.08.18

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