

New as of:

08.2016

# NITRAPrint

Protocol printer

Operating Instructions

English



Dear customer,

We should like to extend our thanks for the expression of trust in our company which you have displayed through the purchase of this printer.

We wish you a great deal of success and enjoyment with NITRAPrint.

Your NITRAPrint Team

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## General notes




Please read this operating manual carefully before commissioning the device. The functionality and value-retention of this steam sterilizer depends on the care accorded to it. Please store this operating manual carefully and in close proximity to the device. It represents a component of the product.

## Symbols used

Symbol	Explanation
	Indicates a dangerous situation, which if not avoided, could entail slight to life-threatening injuries.
	Draws your attention to a situation, which if not avoided, could result in damage to the practice fittings or the device.
	Draws your attention to important information.

## Symbols on the device

Symbol	Explanation
	In affixing the CE mark, the manufacturer declares that this product fulfils the basic requirements of the EMC Directive and the Low Voltage Directive.

## Disposal



In accordance with Directive 2012/19/EU and national disposal regulations regarding old electrical and electronic devices, please be advised that such items must be disposed of in a special way within the European Union (EU). These regulations require environmental friendly usage/disposal of old electrical and electronic devices. Such items must not be disposed of as domestic refuse. This has been expressed using the icon of the “crossed out trash can” since March 24, 2006, amongst other methods.

### Disposal procedure

We feel responsible for our products from the first idea to their disposal. For this reason, we give you an option to return our old electronic and electrical devices.

If you wish to dispose of your devices, please proceed as follows:

## In Germany

To initiate return of the electrical device, please send a disposal request to enretec GmbH. You have the following options here:

- Use the “Returning an electrical device” button under the “eom” menu item on the enretec GmbH homepage ([www.enretec.de](http://www.enretec.de)).
- Alternatively, you can also contact enretec GmbH directly.

enretec GmbH

Kanalstraße 17

16727 Velten

Tel.: +49 3304 3919-500

E-Mail: [eom@enretec.de](mailto:eom@enretec.de)

In accordance with the national disposal regulations regarding old electrical and electronic devices (ElektroG), as the manufacturer, we assume the costs for disposing of the electrical and electronic devices in question. Disassembly, transport and packaging costs shall be borne by the owner/ operator.

Prior to disassembly / disposal of the product, it must be fully prepared (cleaned / disinfected / sterilized).

If your unit is not permanently installed, it will be collected from the practice. If it is permanently installed, it will be picked up curbside at your address by appointment.

## Other countries

For country-specific information on disposal, contact your local dental dealers.

## Scope of delivery

### **Standard scope of delivery**

- NITRAPrint log printer
- Ribbon cartridge, already inserted
- Paper roll
- Power supply
- Series connection cable (RS232)
- EMC filter
- Operating Instructions (CD)

### **Optionally**

- Network adapter

## Safety Instructions

When operating the log printer, please observe the following safety instructions as well as those contained in subsequent chapters.

### Cable and power supply

- Operate the log printer only with the power cable included in the scope of delivery.
- Liquids may not be permitted to penetrate the interior of the log printer. This could result in electrical shocks or short circuiting.
- Only connect the log printer to those devices intended for operation with this log printer.
- Disconnect the log printer from the mains during long downtimes.
- Only operate the device with 5 volts DC.

### Installation location and storage

- Setup the log printer in such a way that it is protected against strong direct sunlight and heat.
- Store and operate the log printer only in a dust-free environment protected against heat and damp.
- Do not place the log printer directly on the steam sterilizer. The steam sterilizer will become hot upon operation. Non-observance could result in restricted function and damage to the log printer.

### Repair

- Do not open the log printer. Incorrect opening and repair can compromise electrical safety and pose a danger to the user.
- The log printer may only be dismantled or repaired by authorized persons.

# Chapter 1 – Device description

## Intended Use

The NITRAPrint log printer serves batch documentation and log output of the devices listed below.

- DAC PREMIUM
- DAC PREMIUM<sup>+</sup>
- DAC PROFESSIONAL
- DAC PROFESSIONAL<sup>+</sup>

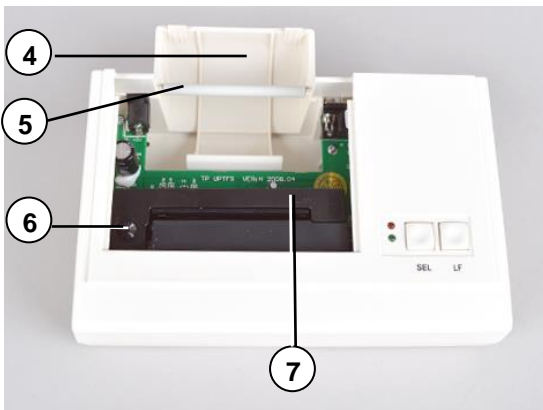
## Views of the device

### Fore view



- (1) Cover
- (2) SEL key
- (3) LF key

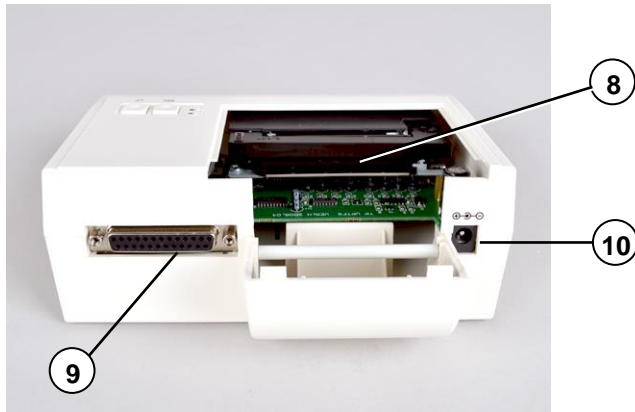
Fig. 1: Paper tray closed



- (4) Paper tray
- (5) Roll dispenser
- (6) Transport key
- (7) Ink ribbon

Fig. 2: Paper tray open

### View from rear



- (8) Paper slot
- (9) RS232 connection
- (10) DC connection for power supply

Fig. 3: Paper tray open

### Operating panel

Table 1 operating panel

Operating LED/operating keys		State	Status/function
	LED	P	On Device is switched on.
		S	On On-Offline mode is activated, data received
	Key	SEL	Switching the printer On and Offline Commencing, interrupting and continuing a print order Performing a self-test
		LF	Paper feed

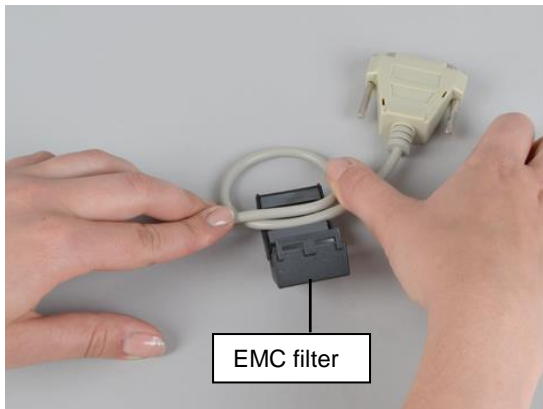


# Chapter 2 – Commissioning

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## Preparing the connections

1. Tie a loop in the connection cable about 2 cm from the socket.
2. Surround the bow in the connection cable with the EMC filter.



**Fig. 4: Preparing the connection cable**

3. Insert the socket of the connection cable in the RS232 connection of the log printer.



**Fig. 5: Connecting the log printer**

4. Connect the power supply with the DC connection of the log printer.

## Activating the log printer and printing

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**WARNING**

Only operate the log printer with the 5V DC power supply included in the scope of delivery.

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1. Connect the power supply to the socket. The log printer activates automatically.
  2. Press the SEL key to send data to the printer and print.
- 

**PLEASE NOTE**

The printer is unable to receive data in offline mode.

- The LED S must illuminate.
- 

## Inserting the paper roll

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**WARNING**

Never pull the paper roll through the printing mechanism. This could result in premature wear of the paper feed. Always operate the paper feed with the LF key.

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1. Push the cover to the rear to open the paper tray.



Fig. 6: Removing the cover

2. Cut off the corners of the paper roll on both sides.



**Fig. 7: Cutting the paper roll to shape**

3. Guide the cut ends of the paper roll through the paper slit from behind. The paper roll will wind off from below.



**Fig. 8: Inserting the paper roll correctly**



**Fig. 9: Incorrect!**

4. Press the LF key until the end of the paper roll protrudes from the upper paper tray. The paper may not be allowed to jam between the cover and the print head.
5. Slide the roll dispenser in the paper roll and insert it in the brackets in the paper tray.
6. Close the paper tray. Ensure that the fore end of the paper roll protrudes from the slit in the cover.
7. Perform a function test. To do so, disconnect the power supply from the socket.
8. Hold the SEL key depressed and then re-connect the power supply to the socket. The log printer will print, stating the settings and the character set.

## Connecting a log printer to a DAC PROFESSIONAL/DAC PROFESSIONAL<sup>+</sup>

To connect, insert the connection cable of the log printer to the series data connection (RS232) of the DAC PROFESSIONAL/DAC PROFESSIONAL<sup>+</sup>. Read and comply with the operating manual of the DAC PROFESSIONAL/DAC PROFESSIONAL<sup>+</sup> for the device-side data connections.

Perform a test print-out to test the connection of the log printer to the steam sterilizer. Proceed on the steam sterilizer display as follows:

1. Open the setup menu **Function** by pressing the (+) and (-) keys shortly and simultaneously. The display shows **Function: Last batch number**.
2. Navigate using the (+) or (-) keys until the display shows **Function: log output**.
3. Press the (P) key to select the sub-menu **Log output output medium**.
4. To confirm, press the (P) key.
5. Navigate using the (+) or (-) keys until the display shows **Test output:**
6. To start the print-out, press the (P) key. This is followed by the display of **Output**.
7. To abort the test output or to leave the menu once the output has been performed, press the (S) key. The display shows **Function: log issue**.
8. Press the (S) key repeatedly to leave the menu.

## Connecting a log printer to a DAC PREMIUM/DAC PREMIUM<sup>+</sup>

To connect, insert the connection cable of the log printer with the network adapter (REF 6546266) of the DAC PREMIUM/DAC PREMIUM<sup>+</sup>. Read and comply with the operating manual of the DAC PREMIUM/DAC PREMIUM<sup>+</sup> for the device-side data connections.

### Log printer with network adapter

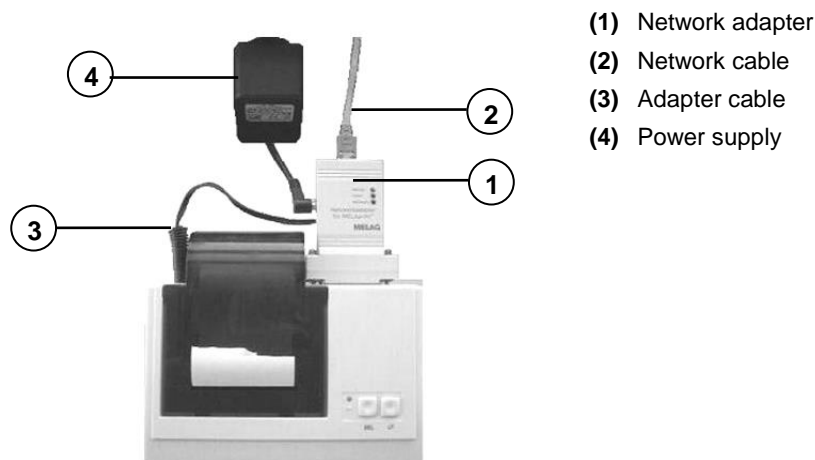


Fig. 10: Connecting the network adapter

First connect the network adapter to the log printer:

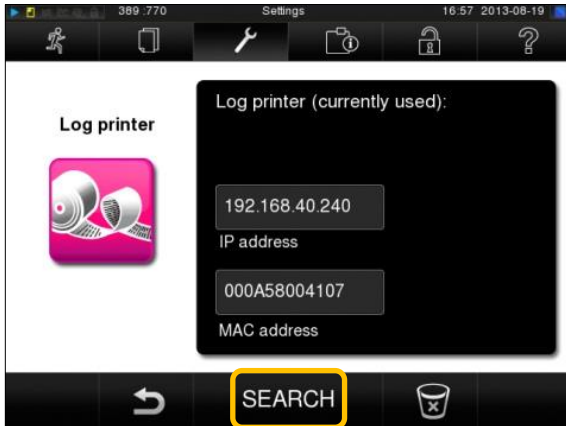
1. Insert the network adapter to the RS232 connection of the log printer.
2. Insert the network cable in the network adapter.
3. Connect the other end of the network cable with the Ethernet data connection of your DAC PREMIUM/DAC PREMIUM<sup>+</sup>.
4. Connect the adapter cable with the DC connection to effect the power supply of the log printer.
5. Register the log printer on the DAC PREMIUM/DAC PREMIUM<sup>+</sup>.

## Registering the log printer on the DAC PREMIUM/DAC PREMIUM+


The (practice) network must be operated in the subnetwork 192.168.40.xx so that the log printer can be recognized automatically in the DAC PREMIUM/DAC PREMIUM+ without any further settings being performed.

Proceed as follows to register and save the log printer in the DAC PREMIUM/DAC PREMIUM+:

1. Select the **Settings** menu.
2. Navigate to the **Log printer** option. The display switches to the "Log printer" window. If a log printer has not been setup, the "IP address" and "MAC address" fields are empty.
3. Select **SEARCH** to display a list of all available log printers connected in the network.




**Fig. 11: Displaying the available log printers**

4. Press the  symbol to search for all log printers available in the network. If one or more log printers are available in the network, these will be displayed in the list of printers.



**Fig. 12: Displaying multiple log printers**

5. Select the desired log printer from the list and confirm with **SAVE**.
6. The display returns to the "Log printer" window.
7. Press the  symbol to exit the menu.
8. Then, working in the **Settings** menu → **Logging**, select the log printer for the log output.

**PLEASE NOTE**

Should these steps not be successful, the IP address saved in the DAC PREMIUM/DAC PREMIUM<sup>+</sup> and the network adapter do not belong to the same subnetwork.

- Arrange for DAC PREMIUM/DAC PREMIUM<sup>+</sup> to adapt the IP address of the network adapter to the IP address of your practice network. Please consult your stockist.

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**Test output**

You can perform a test output to check the connection of the log printer to the DAC PREMIUM/DAC PREMIUM<sup>+</sup>. Simply select any log and print it. Further instructions on selecting a log are outlined in the user manual of the respective DAC PREMIUM/DAC PREMIUM<sup>+</sup>. How to perform a self-test, see Self-test

## Chapter 3 - Maintenance

### Changing the ink ribbon

Change the ink ribbon as soon as the print quality declines.

1. To open the paper tray push the cover backwards.



**Fig. 13: Opening the paper tray**

2. Remove the paper roll from the paper tray.
3. Press on the imprint in PUSH. The ink ribbon will rise on the opposite side.



**Fig. 14: Removing the ink ribbon**

4. Remove the ink ribbon from the bracket.

5. Insert the new ink ribbon in the bracket with the left-hand side first. The ink ribbon must snap in to the printer unit on the right-hand side.



**Fig. 15: Inserting the ink ribbon**

6. Check the ink ribbon for its correct position. Tighten the ink ribbon by turning the transport key in the direction of the arrow.



**Fig. 16: Tightening the ink ribbon k**

7. Insert the paper roll as described on page 10.
8. Close the paper tray.

## Self-test

The printer will generate a test printout with all characters and information about the series interface.

Perform the self-test on the printer as follows:

1. Press the SEL key.
2. Connect the power supply to the socket.
3. Release the SEL key. The printer will start with the test printout, which will stop automatically.



# Technical Data

<b>Model name</b>	
Device dimensions (HxWxD)	6.2 x 16.5 x 14.1 cm
Weight	350 grammes without paper roll
Electrical connection	100-250V, 47-63Hz, 0.5 A DC 5V, 3.5 A
Network cable	1.5 m long
Ambient temperature	0 – 40 °C
Relative humidity	5 – 80 %
Data connection	RS-232 interface
Printing speed	1.0 rows per second 252 dots per row
Dimensions paper roll (B, D)	5.5 cm, Ø 4.9 cm
IP address factory settings	192.168.40.240

## Appendix A - Accessories

Consult your authorized dealer regarding accessories and consumables.  
When order consumables, please state the serial number of your log printer and use the Sirona order no. as listed below.

Article	Order no.
Printer paper (5 rolls)	5877266
Ink ribbon	5877274
Network adapter	6546266



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We reserve the right to make any alterations which may be required due to technical improvements.

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