renkforce

Operating Instructions

Highspeed Thermal Transfer Printer

Item No.: 2734627 (TP806L / RF-TPP3-01)

CE

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1. Introduction

Dear customer,

Thank you for purchasing this product.

If there are any technical questions, please contact: www.conrad.com/contact.

2. Intended use

The product is a thermal transfer printer.

The product is intended for indoor use only. Do not use it outdoors. Contact with moisture must be avoided under all circumstances.

If you use the product for purposes other than those described, the product may be damaged.

Improper use can result in short circuits, fires, electric shocks or other hazards.

The product complies with the statutory national and European requirements. For safety and approval purposes, you must not rebuild and/or modify the product.

Read the operating instructions carefully and store them in a safe place. Make this product available to third parties only together with the operating instructions.

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3. Delivery contents

- Printer
- Power adaptor
- Mains cable
- USB cable (USB-A to USB-B)
- Serial cable
- Cable fastener
- USB memory stick
- Paper roll
- Quick start guide
- Operating instructions

4. Latest product information

Download the latest product information at www.conrad.com/downloads or scan the QR code shown. Follow the instructions on the website.

5. Developer documentation

Download developer documentation from www.conrad.com/downloads.

6. Spare parts

6.1. Thermal paper and thermal labels

Paper type	Standard thermal paper
Paper width	■ 79.5 +/- 0.5 mm ■ 57.5 +/- 0.5 mm (with 25.4 mm spacer)
Paper roll diameter	max. 83 mm
Paper thickness	0.056 - 0.1 mm

7. Description of symbols

The following symbols are on the product/appliance or are used in the text:

Read the operating instructions carefully.

The symbol warns of hazards that can lead to personal injury.

The symbol warns of dangerous voltage that can lead to personal injury by electric shock.

This product must only be used in dry, enclosed indoor areas. It must not become damp or wet.

The symbol warns of hot surfaces that can result in severe burns when touched. Read the information carefully.

8. Safety instructions

Read the assembly instructions carefully and especially observe the safety information. If you do not follow the safety instructions and information on proper handling, we assume no liability for any resulting personal injury or damage to property. Such cases will invalidate the warranty/guarantee

8.1. General

- The product is not a toy. Keep it out of the reach of children and pets.
- Do not leave packaging material lying around carelessly. This may become dangerous playing material for children.
- If you have questions which remain unanswered by this information product, contact our technical support service or other technical personnel.
- Maintenance, modifications and repairs must only be completed by a technician or an authorised repair centre.

8.2. Handling

- Handle the product carefully. Jolts, impacts or a fall even from a low height can damage the product.

8.3. Installation

- Do not place the product under any mechanical stress.
- Protect the appliance from extreme temperatures, flammable gases, steam and solvents.
- Protect the product from high humidity and moisture.
- Protect the product from direct sunlight.
- Dust can damage the printer. Do not install the printer in dusty locations.
- Vibrations, shock and impacts can damage the printer to move and fall down. Install the printer on a solid, stable and non-slip surface.
- Liquids can damage the printer and cause short-circuits. Keep liquids away.

8.4. Operation

The hot printer head can cause burns. Do not touch the printer head.

- Static discharge can damage the printer head. Do not touch the printer head.
- The cutter blade is sharp and can cause cuts. Do not touch the blade.
- Only use recommended label paper to prevent damage to the printer.
- Switch off the printer before you make and disconnect connections.
- Blocking moving parts can cause damage. Do not touch, block or pull moving parts during operation. Do not stick objects into openings.
- Only use approved accessories to prevent damage.

- Consult an expert when in doubt about the operation, safety or connection of the product.
- If it is no longer possible to operate the product safely, take it out of operation and protect it from any accidental use. DO NOT attempt to repair the product yourself. Safe operation can no longer be guaranteed if the product:
    - is visibly damaged,
    - is no longer working properly,
    - has been stored for extended periods in poor ambient conditions or
    - has been subjected to any serious transport-related stresses.

8.5. Connected devices

- Also observe the safety and operating instructions of any other devices which are connected to the product.

8.6. Power adapter

Do not modify or repair mains supply components including mains plugs, mains cables, and power supplies. Do not use damaged components. Risk of death by electric shock!

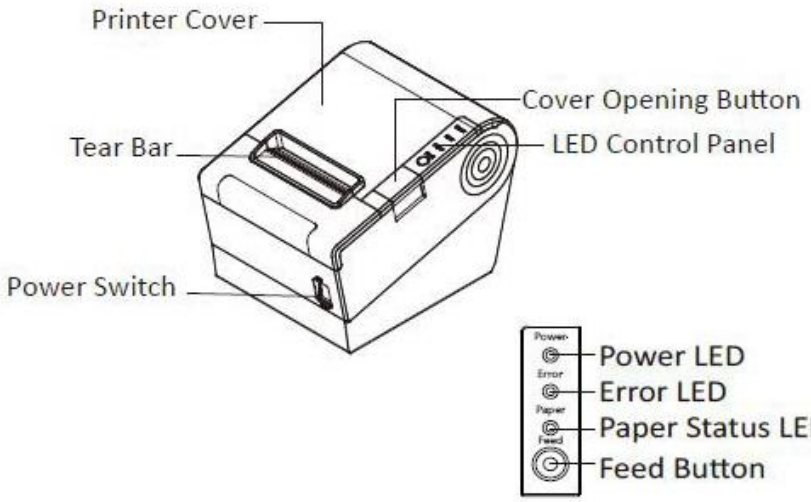
- Connect the appliance to a wall socket that can be accessed easily.
- As power supply, only use the supplied mains adaptor.
- Only connect the power adaptor to a normal mains socket connected to the public supply. Before plugging in the power adaptor, check whether the voltage stated on the power adaptor complies with the voltage of your electricity supplier.
- Never connect or disconnect power adaptors if your hands are wet.
- Never unplug the power adaptor from the mains socket by pulling on the cable; always use the grips on the plug.
- For safety reasons, disconnect the power adaptor from the mains socket during storms.
- Do not touch the power adapter if there are any signs of damage, as this may cause a fatal electric shock! Take the following steps:
    - Switch off the mains voltage to the socket containing the power adapter (switch off the corresponding circuit breaker or remove the safety fuse, and then switch off the corresponding RCD protective switch).
    - Unplug the power adapter from the mains socket.
    - Use a new power adapter of the same design. Do not use the damaged adapter again.
- Ensure that cables are not pinched, kinked or damaged by sharp edges.
- Always lay cables so that nobody can trip over or become entangled in them. This poses a risk of injury.

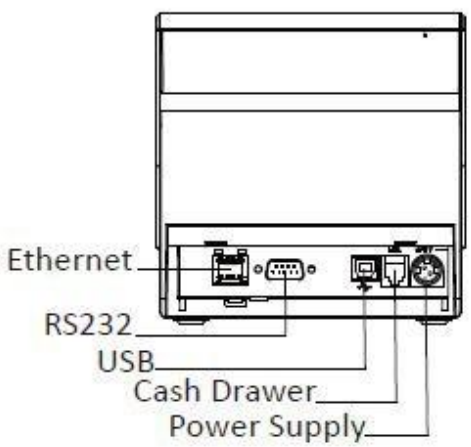
8.7. Repairs

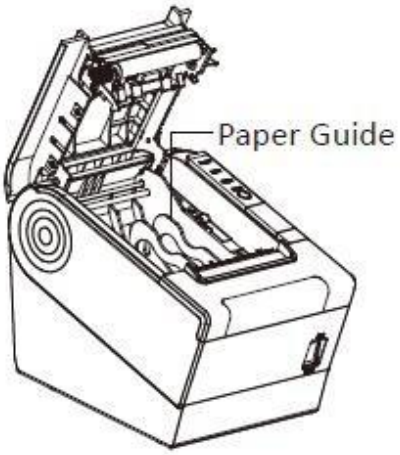
- Repairs require specialist knowledge. Contact a professional to have the printer repaired.
- Only use original spare parts to repair the printer.

9. Product overview

9.1. Components







9.2. Beeper and indicator lights indications

Description	Indicator lights			Beeper
	Power	**Error**	**Paper**	
Normal operation	On	--	--	--
Cover open	On	On	On	Short-long-short-…
Paper end	On	On	On	Short-short-short-…
Paper near end	On	--	On	--
Cutter jam	On	Flash	--	Short-short-short-…
Over-temperature-Alert	On	Flash	--	Long-short-long-…
Over-temperature-Shutoff	On	Flash	--	Long-short-long-…
Low voltage alert	On	Flash	--	Short-short-long-…
High voltage alert	On	Flash	--	Short-short-long-…

Notes on over-temperature:

A thermistor detects the print head temperature. If the print head temperature exceeds 65 °C, the user is alerted (over-temperature alert). If the print head temperature exceeds 80 °C, printing stops (over-temperature shutoff) until the temperature falls below acceptable levels.

10. Technical data

Item		Parameter
Printing parameter	Printing method	Direct thermal line printing
	Resolution	Default 203 dpi, 180 dpi can be emulated
	Printing width	72 mm (576 dots)
	Printing speed	Max. 250 mm/s
	Print density	Adjustable from degree 1 to degree 4
	Printing Direction	Vertical and horizontal
Interface	Default	Built-in USB, RS232, LAN
Auto cutter		Partial Cut
Page mode		Supported
Memory	RAM	2 MB
	Flash	4 MB
Character set	Font	Font A:12*24 Font B:9*17 CHN: 24*24
	Number of Columns	48/64
	Alphanumeric	95
	Expanded Character	128*47
	Code page	47
Graphics		Support bitmap printing with different density and user-defined bitmap printing (Max. 256K for total)
Barcode	1D	UPC-A, UPC-E, EAN8, EAN13, CODE39, ITF, CODEBAR, CODE128, CODE93
	2D	PDF417, QR code
Detection	Sensor	Paper end, cover open, over-temperature and high/low voltage sensors
Power supply	Input	100 -240 V/AC, 50/60 Hz, 2.0 A
	Output	24 V/DC ±5%, 2 A
Paper	Paper loading	Easy-loading structure of upward open cover
	Paper type	Standard thermal paper
	Paper width	79.5 ± 0.5 mm/57.5 ± 0.5 mm (with 25.4 mm spacer)
	Paper thickness	0.056 - 0.1 mm
	Paper roll diameter	Max. 83 mm

Item		Parameter
Emulation		ESC/POS
Condition	Operating	0 to +40 °C / 20 – 85 % rH
	Storage	-20 to +70 °C / 5 – 95 % rH
Reliability	TPH Life	150 km
	Cutter Life	2,000,000 times
Dimensions (W x D x H)		145 x 197 x 146 mm
Driver		Windows (POSReady/Win11/Win10/Win8/Win7/Vista/ XP/2000), Linux CUPS, JavaPOS, OPOS.net, OPOS

11. Setting up

11.1. Placing the printer

Place the printer in a location that satisfies the following requirements:

- The surface is flat and steady.
- The surface is insensitive to rubber. The rubber feet can leave marks.
- The inclination angle with respect to the paper feed slot will not exceed ±10° after placement.
- No sources of water are or will be nearby.
- The location is and will be free from vibrations and shocks.

11.2. Connecting the host computer

Connect the printer to the host computer via one of the communication interfaces: USB, R232, Ethernet.

Note: if you have doubts about which connection is suitable, reach a professional for help.

1. Move the power switch to position **0** to power off the printer.
2. Connect the printer to the host computer via the selected communication interface.

11.3. Connecting the cash drawer

Important: Only connect the cash drawer interface on the printer to a 24 V/DC cash drawer device.

1. Move the power switch to position **0** to power off the printer.
2. Connect the cash drawer to the cash drawer interface on the printer.

11.4. Connecting to power

Connecting:

1. Move the power switch to position **0** to power off the printer.

NOTICE: the plug on the power adaptor cable only fits one way. Do not force it into the socket.

2. Connect the power adaptor cable to the power input socket at the rear of the printer.

   > The plug locks in the socket.
3. Connect the mains cable and the power adaptor.
4. Connect the power adaptor to a suitable mains socket.

Disconnecting:

1. Move the power switch to position **0** to power off the printer.

NOTICE: the plug is locked in the socket. Unlock the socket before removing to prevent damage.

2. Hold the plug and pull it to release the lock. Remove the plug.

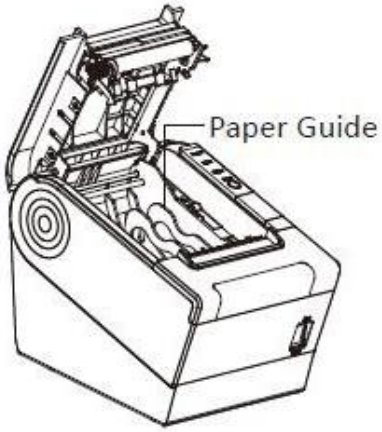
11.5. Installing paper

Notes:

- Use the recommended thermal paper type.
- Do not touch the surface of thermal paper with fingers, fingernails or objects to prevent colour fading.
- Store paper in a dark, cool and dry place to prevent paper degradation.

About the paper guide:

Use the paper guide to match different paper widths. There are two (2x) paper guide slots inside the paper compartment to match different paper widths: 80 mm and 58 mm. Always install the paper guide, do not remove it.



Installing paper:

⚠ **CAUTION**

Serrated cutting edge

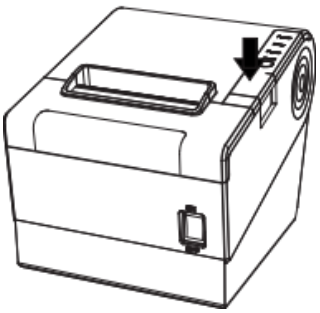
Risk of cuts

Do not touch edge

Keep fingers and hands away when tearing off paper

Step 1

Push the release button and open the cover.



Step 2

(If you replace paper) Clean the print head before installing a new paper roll. Follow the instructions in “Cleaning the thermal print head”.

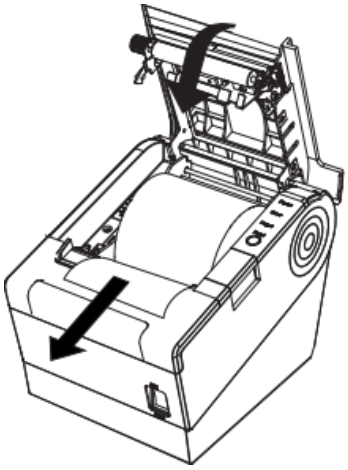
Step 3

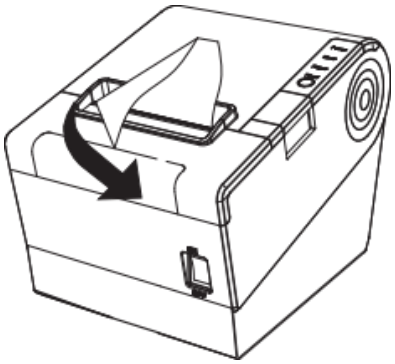
Install the paper roll.

1. Set the paper guide to match the paper width.
2. Turn the paper roll so that the thermo-sensitive layer is facing down.
3. Load the paper roll into the printer as shown above. Mind cutting edge!

Step 4

Pull out some paper then close and lock the cover. Tear off the excess paper. **Mind cutting edge!**





12. Basic operation

12.1. Powering on and off

1. To power on, move the power switch to position **1**.
   > The indicator **Power** lights up.
   > The buzzer emits a short buzz.
2. To power off, move the power switch to position **0**.

NOTICE: Do not unplug the power cable if the printer is powered on to prevent product damage. Move the power switch to position **0** before unplugging.

13. Printing

13.1. Feeding paper out

Prerequisites:

> The cover is closed.

- Press the button **Feed** to feed out a small amount of paper.
- Press and hold the button **Feed** to continously feed out paper. Release the button to stop.

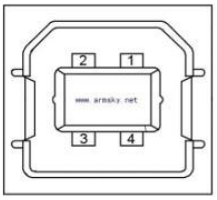
13.2. Printing a self-test page

The self-test checks and prints current printer settings.

1. (If not installed) Install the Windows® Label Printer Utility. Refer to “Configuring printer with Windows® Label Printer Utility” for instructions.
2. Open the Windows® Label Printer Utility.
3. Select the printer for which you want to print a self-test page.
4. Click the button **Printer Test …** to print a self-test page.

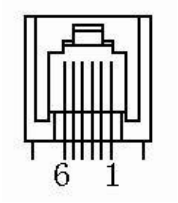
14. Interfaces

14.1. USB interface



PIN	Signal name
1	VBUS
2	D-
3	D+
4	GND

14.2. Cash drawer

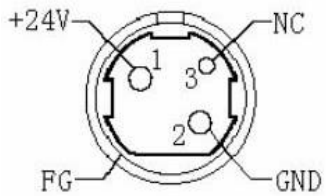


PIN	Signal name
1	FG
2	Drawer 1
3	DRSW
4	VDR
5	Drawer 2
6	GND

Electrical characteristics:

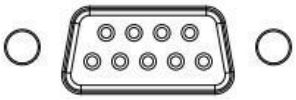
- Driving voltage: 24 V/DC
- Driving current: max. 0.8 A (in 510 ms)
- Drawer check signal “L” = 0 - 0.5 V; “H” = 3- 5 V

14.3. Power connector



PIN	Signal name
1	+24V
2	GND
3	N.C
SHELL	F.G

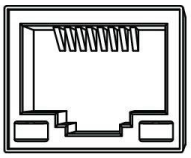
14.4. Serial interface



Note: The interface is compatible with standard RS232 components.

PIN	Signal name
1	-
2	TXD
3	RXD
4	-
5	GND
6	RTS
7	CTS
8	RTS
9	-

14.5. Ethernet Interface



Note: Always use standard RJ45 components.

PIN	Signal name
1	TX+
2	TX-
3	RX+
4	-
5	-
6	RX-
7	-
8	-

15. Troubleshooting

This chapter provides information on some common problems you may encounter and how to solve them.

15.1. Printer does not work

Problem	Probable reason	Solution
Printer does not work. LED is off.	Printer has no power.	Connect to the power supply.
	Printer is off.	Turn on the printer.

15.2. LED Indications / Beeper

Indicator lights			Beeper	Cause	Solution
Power	**Error**	**Paper**			
On	On	On	Short-long-short-…	Cover is open.	Close the cover.
On	On	On	Short-short-short-…	Out of paper	Replace paper.
On	--	On	--	Paper is near end.	Be ready to replace paper soon.
On	Flash	--	Short-short-short-…	Cutter jam	See “Printing problems”
On	Flash	--	Long-short-long-…	Over-temperature-Alert	■ Switch the printer off. ■ Let the printer cool down to room temperature.
On	Flash	--	Long-short-long-…	Over-temperature-Shutoff	■ Switch the printer off. ■ Let the printer cool down to room temperature.
On	Flash	--	Short-short-long-…	Low voltage alert	Check voltage supply.
On	Flash	--	Short-short-long-…	High voltage alert	Check voltage supply.

15.3. Printing problems

Problem	Probable reason	Solution
Coloured stripe in the paper.	Paper is near end.	Replace paper.
Blurred printing or spot	Paper is loaded incorrectly.	Reload the paper roll.
	Incompatible paper type	Use recommended thermal paper.
	Thermal head or print roller is dirty.	Clean the thermal head and the print roller.
	Low print density	Increase the print density level.
Paper is not feeding normally.	Paper jam	■ Switch the printer off. ■ Open the cover. ■ Remove jammed paper.
Vertical print words missing.	Thermal head or print roller is dirty.	Clean the thermal head and the print roller.
Paper jam	Wrong paper feeding	■ Remove jammed paper. See “Removing jammed paper”. ■ Insert paper correctly.

15.4. Cutting problems

Problem	Probable reason	Solution
Cutter is jammed.	Cutter abrasion	Replace the cutter.
	Paper scraps	Clean the paper scraps on the transmission system.
Insufficient cutting.	Cutter edge abrasion	Replace the cutter.
	Paper is too thick.	Use thinner paper.

15.6. Removing jammed paper

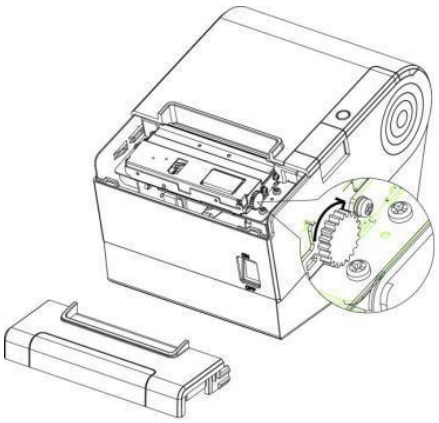
1. Move the power switch to position **0** to switch the printer off.
2. Let the printer cool down to room temperature.
3. Open the cover.
4. Carefully remove the jammed paper.

15.7. Resolving cutter jams

You are able to open the cover:

1. Move the power switch to position **0** to switch the printer off.
2. Let the printer cool down to room temperature.
3. Open the cover.
4. Carefully remove the jammed paper.

You are not able to open the cover:



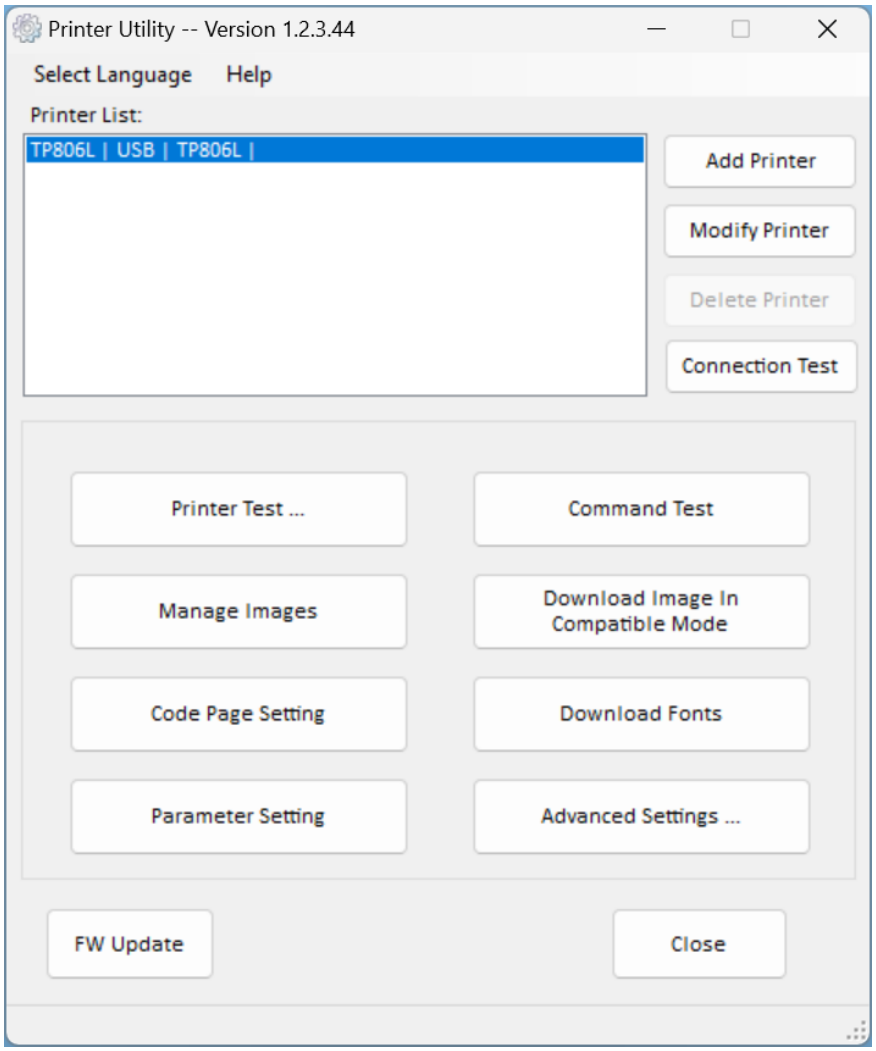
1. Move the power switch to position **0** to switch the printer off.
2. Let the printer cool down to room temperature.
3. Pull the cutter cover towards you and remove it.
4. Rotate the wheel to reposition the cutter to its default position.
5. Open the cover.
6. Carefully remove the jammed paper.

16. Configuring printer with Windows® Label Printer Utility

With the Windows® “Label Printer Utility” you can configure parameters of new and existing printers.

16.1. Getting started

1. Download the application **HPRTUtilityForPOS** from www.conrad.com/downloads to your computer.
2. Open the application **HPRTUtilityForPOS**.



16.2. Adding new printers

1. Connect the printer to the computer/POS system.
2. Switch the printer on.
3. Open the application **HPRTUtilityForPOS.**
4. Click **Add Printer**.
5. Select the printer model and connection type.
6. Click **Connect Test** to test the printer connection.
   ➔ A pop-up will inform the connection status.
7. On the main page, click **Print Test Text** to print a test label. Follow the on-screen instructions.

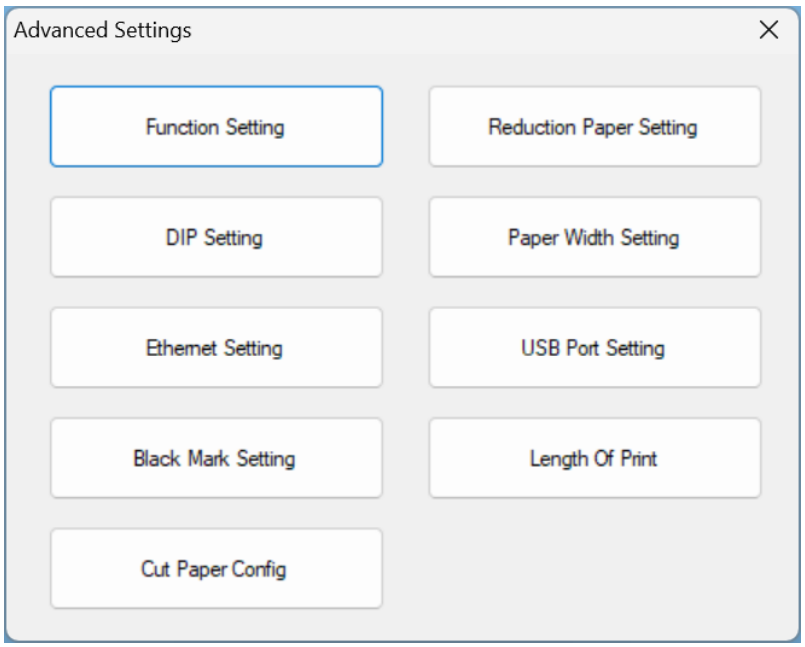
Next step: Configure the printer.

16.3. Configuring advanced settings

Prerequisites:

> Printer is connected to computer/POS system.

1. Open the application **HPRTUtilityForPOS.**
2. On the main page, select the printer you want to configure from the printer list.
3. Click **Advanced Settings…** to open the printer settings.
4. Adjust the parameters.



16.4. Configuring the buzzer

Prerequisites:

> Printer is connected to computer/POS system.

1. Open the application **HPRTUtilityForPOS.**
2. On the main page, select the printer you want to configure from the printer list.
3. Click **Function Setting** to open the printer settings.
4. Configure the buzzer.

16.5. Adding your company logo to the receipt head

Load your company logo into the printer's memory and have the printer add it to the receipt head.

Prerequisites:

> Printer is connected to computer/POS system.

1. Prepare a small-sized .png or .jpg image (example: 100 x 150 px).
2. Open the application **HPRTUtilityForPOS.**
3. On the main page, select the printer you want to configure from the printer list.
4. Click **Download Image In Compatible Mode** to open the image settings.
5. In the window **Download image**, click **Add** and select the image from your operating system.
6. From the dropdown menu **Print Alignment**, select the image alignment (example: left).
7. Click **Download mode of F** to load the image into the printer memory.

   The printer prints the image.

17. Cleaning and care

Adhesives and coatings of the media can transfer onto the printer parts, which can lead to accumulation of dust and debris. Regular cleaning helps to maintain print quality and prevents breakdowns.

17.1. Cleaning the housing

Important:

- Do not use aggressive cleaning agents, rubbing alcohol or other chemical solutions. They damage the housing and can cause the product to malfunction.
- Do not immerse the product in water.

1. Move the power switch to position **0** to switch the printer off.
2. Disconnect the printer from the power supply.
3. Let the printer cool down to room temperature.
4. Clean the product with a dry, fibre-free cloth.

17.2. Cleaning the paper sensor

Remove debris or dirt from the paper sensor to prevent misreadings or unstable detection of the label gap.

1. Move the power switch to position **0** to switch the printer off.
2. Disconnect the printer from the power supply.
3. Let the printer cool down to room temperature.
4. Open the printer cover.
5. Clean the paper sensor with a cotton bud dampened with alcohol.

17.3. Cleaning the thermal print head

Clean the print head with methanol or isopropyl alcohol and a cotton bud.

Important:

- Do not touch the print head with your finger or hand to prevent damage.
- Perform the cleaning process each time the paper roll is replaced to prevent print quality deterioration.

CAUTION

Hot print head can cause burns.

Let printer cool down before opening.

1. Move the power switch to position **0** to switch the printer off.
2. Disconnect the printer from the power supply.
3. Let the printer cool down for about 3 minutes. The printer head can be very hot.
4. Open the printer cover.
5. Dampen a cotton bud with methanol or isopropyl alcohol.
6. Clean the head with the cotton bud. Start at the center and move to the outside.
7. Wait for the alcohol to completely evaporate.

17.4. Cleaning roller and/or paper path

Clean the roller and paper path if you notice reduced print quality or problems with paper detection.

1. Move the power switch to position **0** to switch the printer off.
2. Disconnect the printer from the power supply.
3. Let the printer cool down to room temperature.
4. Open the printer cover.
5. Remove the installed paper roll.
6. Remove lose dust or foreign substance using dry cloth or cotton swabs.
7. Remove persistent adhesive foreign substances with a clean cloth or cotton swab dampened with methanol or isopropyl alcohol.
8. Wait for the alcohol to completely evaporate before you use the printer again.

18. Disposal

This symbol must appear on any electrical and electronic equipment placed on the EU market. This symbol indicates that this device should not be disposed of as unsorted municipal waste at the end of its service life.

Owners of WEEE (Waste from Electrical and Electronic Equipment) shall dispose of it separately from unsorted municipal waste. Spent batteries and accumulators, which are not enclosed by the WEEE, as well as lamps that can be removed from the WEEE in a non-destructive manner, must be removed by end users from the WEEE in a non-destructive manner before it is handed over to a collection point.

Distributors of electrical and electronic equipment are legally obliged to provide free take-back of waste. Conrad provides the following return options free of charge (more details on our website):

- in our Conrad offices
- at the Conrad collection points
- at the collection points of public waste management authorities or the collection points set up by manufacturers or distributors within the meaning of the ElektroG

End users are responsible for deleting personal data from the WEEE to be disposed of.

It should be noted that different obligations about the return or recycling of WEEE may apply in countries outside of Germany.

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