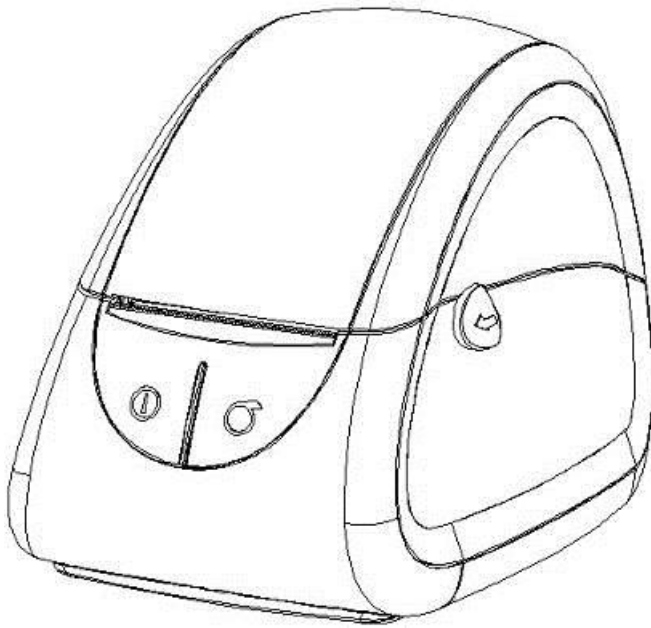# Operating Instructions

Thermal Label Printer

Item No.: 2734624 (RF-TLP2-01 / LPQ58) / 50.8 mm (2")

Item No.: 2734625 (RF-TLP3-02/ LPQ80) / 76.2 mm (3")

CE

1. Contents

2. Introduction

Dear customer,

Thank you for purchasing this product.

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

3. Intended use

The product is a thermal label 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.

All company names and product names are trademarks of their respective owners. All rights reserved.

4. 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

5. 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.

6. Spare parts

6.1. Thermal paper and thermal labels

The printer can print on any commercially available thermal paper and thermal labels.

W = Width H = Height	2734624	2734625
Thermal paper	W: 60 mm	W: 75 mm
Thermal label	W x H: 60 x 30 mm	Size: 75 x 30 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.

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.

■ Vibrations, shock and impacts can damage the printer or cause it to fall down. Install the printer on a solid and vibration-free surface where the likelihood of shock and impact is minimal.

■ 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.
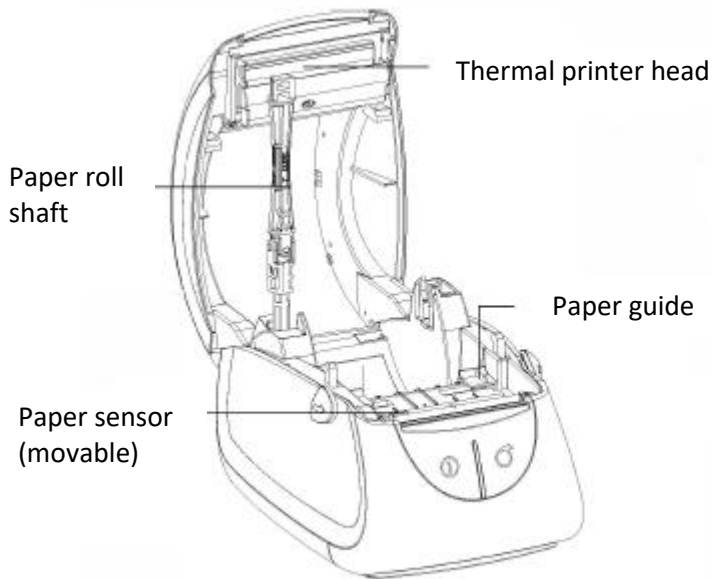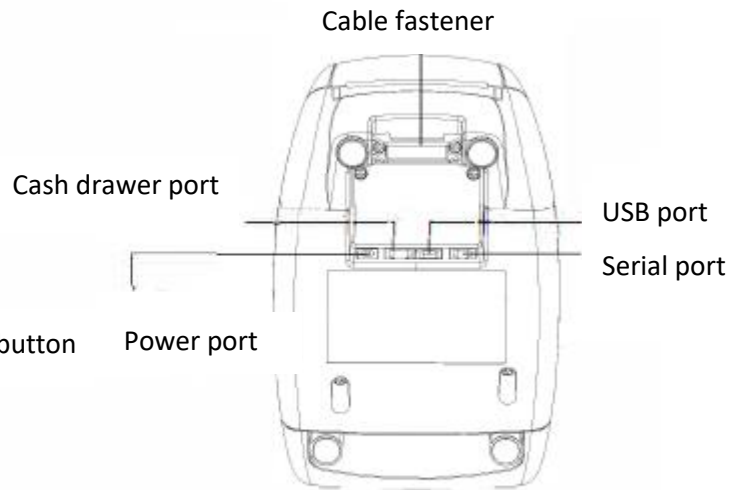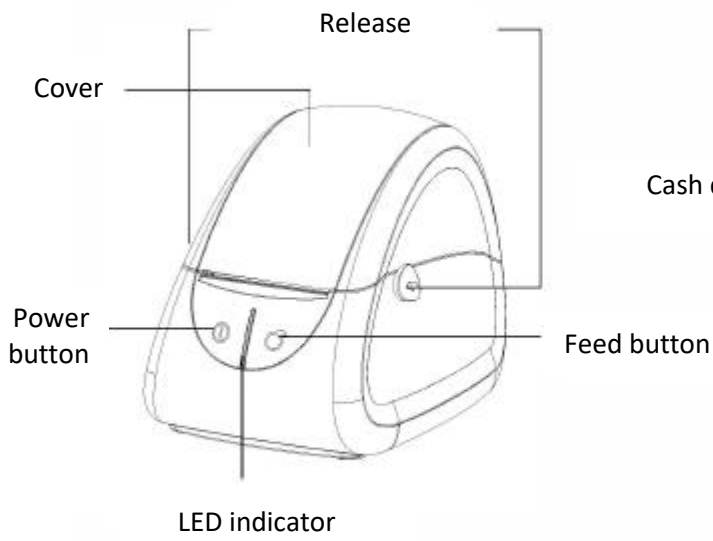
8.6. Power adapter

⚠ 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

Release

Cover

Power button

Feed button

LED indicator

Cable fastener

Cash drawer port

USB port

Serial port

Power port

Thermal printer head

Paper roll shaft

Paper guide

Paper sensor (movable)

Cable fastener installation

10. Specification

Items		Parameter	
Model		2734624 (LPQ58)	2734625 (LPQ80)
Printing	Printing Method	Direct Thermal Printing	
	Resolution	203 dpi (8 dots/mm)	
	Printing Speed	76 mm/s Max.	102 mm/s Max.
	Printing Width	56 mm Max.	80 mm Max.
	Printing Length	400 mm	300 mm
Processor		32 bit RISC CPU	
Memory	RAM	2 MB	
	Flash	2 MB	
Detection	Sensors	Out of Paper Detection, Gap Detection, Notch Detection, Black mark Detection, TPH Temperature Detection	
Media	Types	Fan-fed or Roll-fed, Die-cut or Continuous Label	
	Width	1"(25 mm) – 2.44" (62 mm)	1"(25 mm) – 3.35" (85 mm)
	Thickness	0.003"(76.2 um) – 0.007"(177.8 um)	
	Label Roll Diameter	90 mm	
	Core Diameter	12.7 mm (0.5"), 25.4 mm (1"), 38.1 mm (1.5")	
Programming Language		TSPL	
Software	Label Design	Bartender® Ultralite, Mac, Linux	
	Seagull Driver	Windows 2000, XP, Vista, Server,7,8,10,11	
Resident Fonts	Bitmap Fonts	6, 8, 12, 16, 32, OCR A & B. 90°, 180°, 270° rotatable and 10 times expandable in horizontal and vertical directions	
Code Pages		DOS437,720,737,755,775,850,852,855,856,857,858,860,86 2,863,864,865,866, Windows 1250,1251,1252,1253,1254,1255,1256,1257,1258 ISO8859-1,-2,-3,-4,-5,-6,-8,-9,-15 DBCS 932 (JIS), 936(GBK), 949 (Koran), 950(BIG5)	

| Barcode	1D	Code 39, Code 93, EAN 8/13 (add on 2 & 5), UPC A/E (add on 2 & 5), I 2 of 5 & I 2 of 5 with Shipping Bearer Bars, Codabar, Code 128 (subset A, B, C), EAN 128, RPS 128, UCC 128, UCC/EAN-128 K-Mart, Random Weight, Post NET, ITF 14, China Postal Code, HIBC, MSI, Plessey, Telepen, FIM, GS1 DataBar, German Post Code, Planet 11 & 13 digit, Japanese Postnet, I 2 of 5 with human readable check digit, Standard 2 of 5, Industrial 2 of 5 , Logmars, Code 11, Code 49, Cadablock
	2D	PDF417, Data matrix code, Maxi Code, QR code, Micro PDF417, Micro QR code, Aztec code
Interfaces		USB, RS232C
Control Panel		Tri-color Status LED, Power and Feed button

Items		Parameter	
		2734624 (LPQ58)	**2734625 (LPQ80)**
Power Adapter	Power Input	100 – 240 V/AC, 50/60 Hz, 0.8 A	
	Power Supply	12 V/DC, 2A	
Environment	Operation	+5 to 40 °C, 30 – 85 % (non-condensing)	
	Storage	-20 to +50 °C, 30 – 85 % (non-condensing)	
Physical Characteristics	Dimensions (LxHxW)	186 x 133 x 128 mm	188 x 134 x 150 mm
	Weight	805 g	880 g

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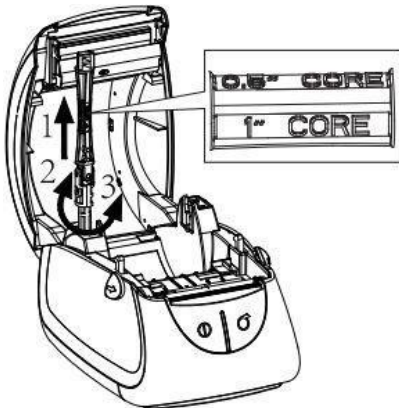# 11. Installation and Usage

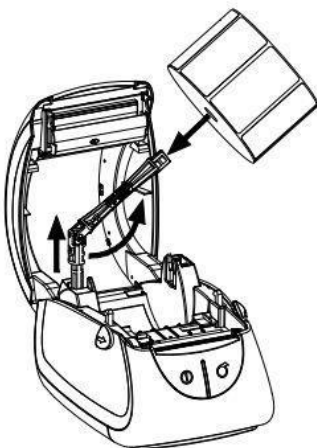## 11.1. Media Loading

11.1.1. Paper Roll Loading

1. Use both of your index fingers and pull the buttons forward to open the top cover.
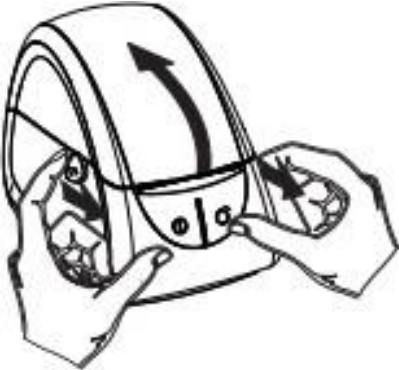
2. Pull out the paper roll holder. Rotate the paper roll holder to match the core diameter of the paper roll.
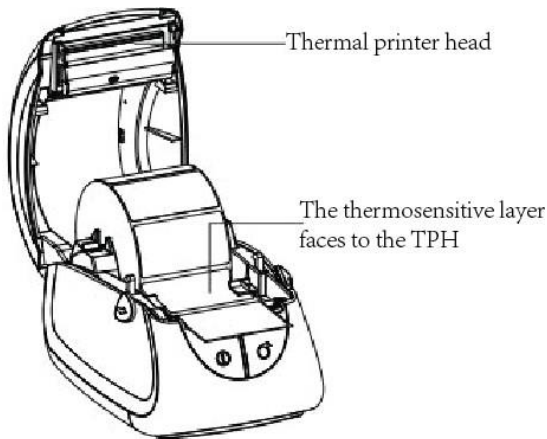

3. Insert the paper roll into the holder and then lock the holder. Make sure the thermosensitive layer faces up.
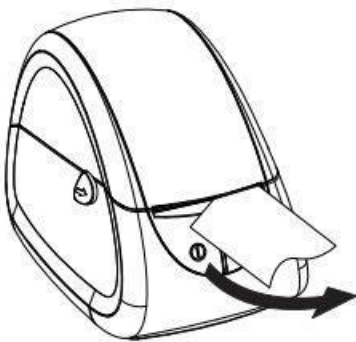

Note: If you do not print with black mark paper, center the gap sensor.

4. Pull out some paper and adjust the paper guide to fix the paper.

Thermal printer head
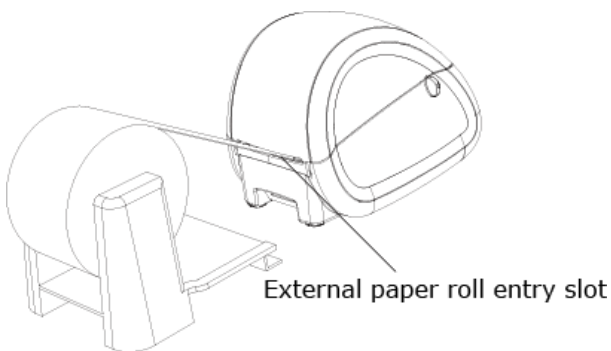
The thermosensitive layer faces to the TPH

5. Close the cover and tear off the excess paper.

11.1.2. External Paper Roll

If you use an external paper roll, refer to the below image to load the paper into the printer.

External paper roll entry slot

11.2. Connecting to power

1. Connect the power adaptor cable to the power input socket on the printer.

2. Connect the mains cable to the power adaptor.

3. Connect the power adaptor to a suitable mains socket.

11.3. Interface Cable Connection

The printer supports the following communications interface standards.

■ RS-232C (Serial) Cable

■ USB-B Type Cable

Connect the interface cable as shown below:
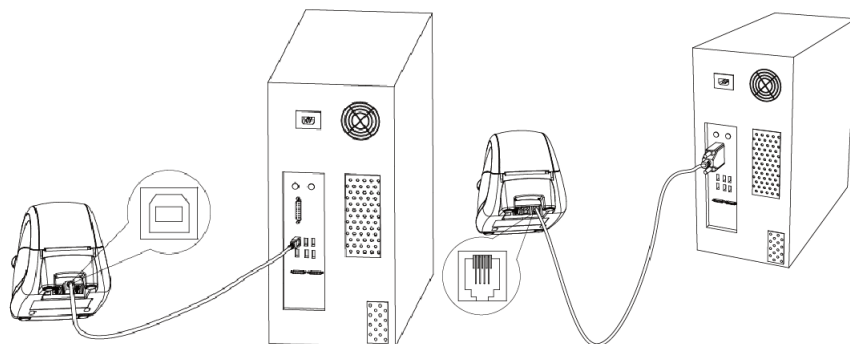
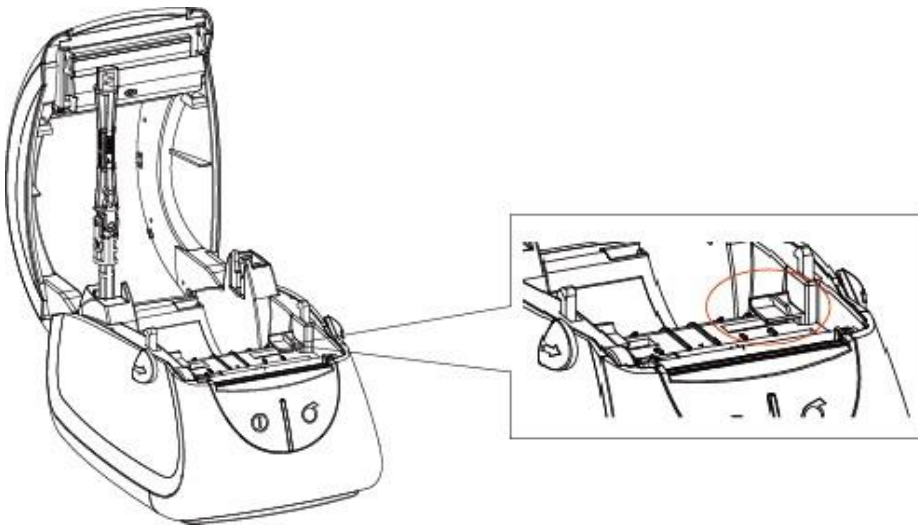
USB cable   Serial cable

1. (If LED indicator is on) press the power button ⃝ for about 1.25 seconds to switch the printer off.

2. Connect the communication cable to the printer communication port to be used.

   > Connect the RS-232C (Serial) Cable to the serial port.
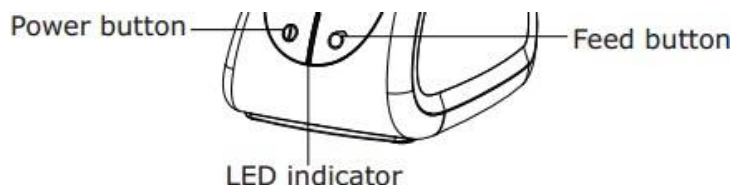
   > Connect the USB-B type cable to the USB port.

11.4. Detection

Note: If you do not print with black mark paper, center the gap sensor.
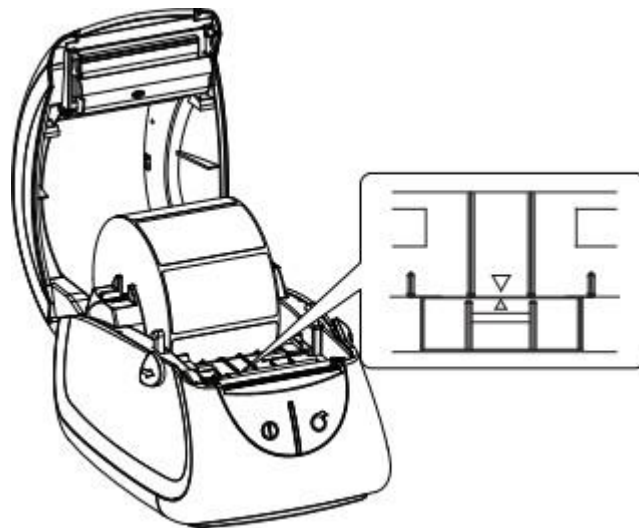
11.5. Operation Panel

Power button — LED indicator — Feed button

POWER Button ⏻

This button is used to turn the printer on/off.

- Press the power button ⏻ for approx. 1.25 seconds to switch on.

- Press the power button ⏻ for approx. 1.25 seconds to switch off.

- **Blue LED:** printer in standby mode

- **Green LED:** printing in progress

- **Red LED:** (1) paper is used up or (2) printer does not work properly

FEED Button ⟳

This button is used to feed paper manually and print a test page.

- Press the feed button ⟳ to feed paper and perform a self-test. Refer to "Print Self-test Page".

LED indications

Color	Status	Remarks
BLUE	ON	The printer is ready to print with label media
Green	ON	The paper is feeding/under printing
RED	ON	The printer cover button is not in right position
YELLOW	ON	The printer is ready to print with continuous media
PINK	ON	The thermal printer head is overheated
BLUE	FLASH	Do not pass the RAM test
RED	FLASH	Out of paper
WHITE	ON	The printer is ready to print with black mark media

11.6. Basic Operation

11.6.1. Power On/Power Off

- Press the power button ⓘ for about 1.25 seconds to switch on.

- Press the power button ⓘ for about 1.25 seconds to switch off.

11.6.2. Feed

When the printer is on, press feed button ⟲ and the printer will automatically feed paper to the specified position according to the paper type you use.

- In "Continuous Mode", the printer will feed a fixed distance of paper

- In "Label Mode", the printer will feed a whole label

11.6.3. Print self-test page

The self-test checks whether the printer has any problems. There are two options to run the self-test.

Print self-test page via FEED button

1. Check that paper is loaded properly.

2. Switch the printer off.

3. Close the top cover.

4. Press and hold the feed button ⟲ and then press the power button ⓘ to switch the printer on.

   > The printer prints a self-test page.

Print self-test page via Windows® print driver

1. Install the Windows driver. Refer to Configuring printer with Windows® Label Printer Utility for the installation procedure.

2. Print the test page using the "Print test page" function of Windows driver.

11.7. Configuring printer parameters

You can configure printer settings via the buttons on the printer or the printer software. The printer settings you can configure via the buttons is limited.

To configure parameters via Windows® software, refer to Configuring printer with Windows® Label Printer Utility.

11.7.1. Parameters configurable via buttons

The parameters are listed in the order that you will configure them.

COM Port setting	
Baud rate	9600
	19200
	38400
	57600
	115200
Printer setting	
Paper Mode	label
	black mark
	auto
	receipt
Print Density	0 - 14
Protocol	ESC
	TSPL

11.7.2. Configuring parameters via buttons

Activating settings mode

To activate the settings mode, perform the following steps **within 2 seconds** after powering the printer on:

1. Press the power button ⏻ three times.

2. Press the feed button ⭕ one time.

Configuring parameters

The printer will print a label with every parameter you configure.

Refer to Parameters configurable via buttons for parameters you can configure.

■ Press the power button ⏻ to select a setting.

■ Press the feed button ⭕ to confirm a setting and move to the next setting item.

Exiting settings mode

1. To exit settings mode, switch the printer off.

12. Interface

12.1. USB interface

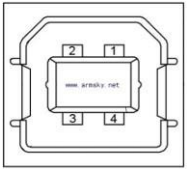| PIN No.	Signal name
1	VBUS
2	D-
3	D+
4	GND

12.2. Cashdrawer
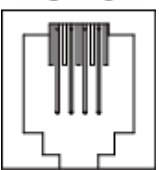
Pin No.	Signal	Function
1	FG	Frame Ground
2	DRAWER1	Drawer kick-out drive signal 1
3	DRSW	Drawer open/close signal
4	VDR	Drawer driving source
5	DRAWER2	Drawer kick-out drive signal 2
6	GND	GND

Voltage: 12 V/DC

Current: max. 2 A

Signal: "L" = 0 - 0.5 V / "H" = 2.4 - 3.3 V

12.3. Serial Interface

PIN No.	Signal name
1	RTS
2	RXD
3	GND
4	TXD

13. Configuring printer with Windows® Label Printer Utility

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

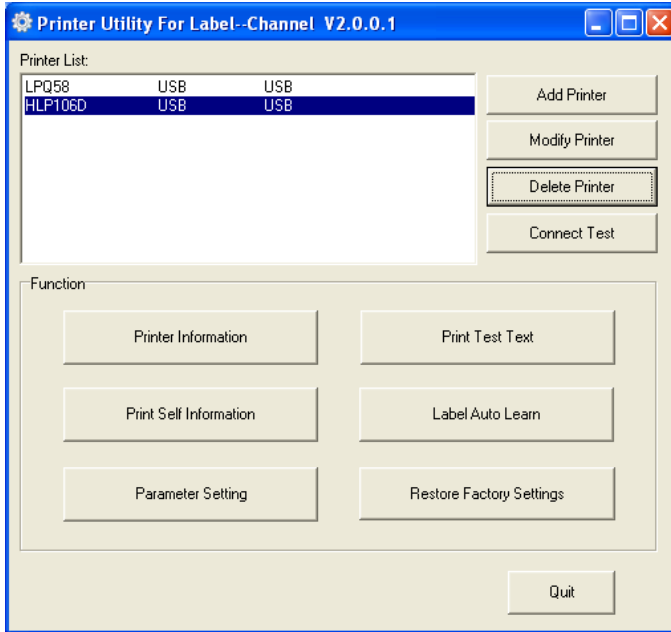## 13.1. Getting started

1. Download the application **HPRTUtilityForLabel** from www.conrad.com/downloads to your computer.

2. Open the application **HPRTUtilityForLabel**.

13.2. Adding new printers

1. Connect the printer to the computer/POS system.

2. Switch the printer on.

3. Open the application **HPRTUtilityForLabel**.

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.
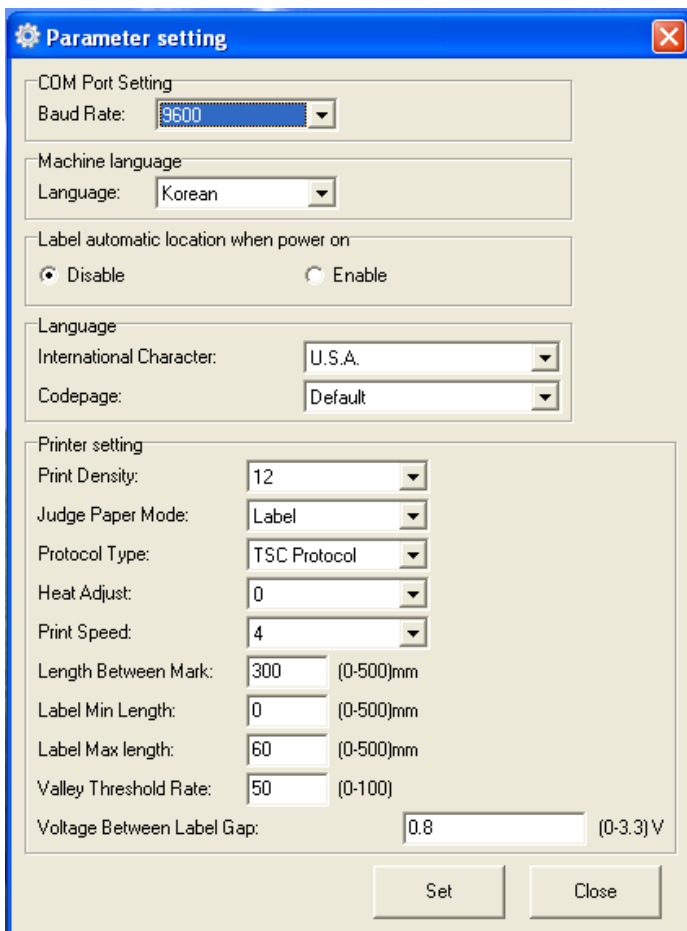
Next step: Configure the printer.

13.3. Configuring printers

Prerequisites:

> Printer is connected to computer/POS system.

1. Open the application **HPRTUtilityForLabel**.

2. On the main page, select the printer you want to configure from the printer list.

3. Click **Parameter Setting** to open the printer settings.

4. Adjust the parameters and click **Set** to save the changes.

14. Installing Windows® label editor BarTender® Ultralite

With BarTender® Ultralite you can create and edit labels. To use BarTender® Ultralite, you must install on your computer the required Seagull (www.seagullscientific.com) print driver and the BarTender® Ultralite application.

14.1. Installing Seagull Windows® driver

Seagull drivers are available for the following operating systems:

- Microsoft Windows® 11 (32 bit/64 bit)
- Microsoft Windows® 10 (32 bit/64 bit)
- Microsoft Windows® 8 (32 bit/64 bit) Microsoft
- Windows® 7 SPI (32 bit/64 bit)
- Microsoft Windows® Vista SP2 (32 bit/64 bit)
- Microsoft Windows® XP Professional SP3 (32 bit)
- Microsoft Windows® Server 2012(64 bit) Microsoft Windows® Server 2008 R2
- Microsoft Windows® Server 2008 SP2(32 bit/64 bit) \
- Microsoft Windows® Server 2003 R2 SP2(32 bit/64 bit)
- Microsoft Windows® 2000 (32 bit/64bit)

1. Download the required Seagull print driver from www.conrad.com/downloads.

2. Connect the printer to the computer/POS system.

3. Switch the printer on.

4. Install the Seagull print driver.

   ➔ The printer will be added to the Windows® start menu.

14.2. Installing BarTender® Ultralite

1. Download the BarTender® Ultralite application from www.conrad.com/downloads.

2. Install the BarTender® Ultralite application.

15. Setting up the MacOS label editor

On a MacOS computer you can create and edit labels via the online HPRT label creator application after installing the MacOS TSPL driver.

15.1. Installing the MacOS TSPL driver

1. Download the MacOS TSPL driver from www.conrad.com/downloads.

2. Install the MacOS TSPL driver.

15.2. Connecting printer to online HPRT label creator

Prerequisites:

> MacOS TSPL driver is installed.

1. Connect the printer to the computer/POS system.

2. Switch the printer on.

3. On the computer on which you installed the TSPL driver, open the URL https://hm.hprt.com/label/login in a webbrowser.

4. Create an account.

Next step: Create and print labels via the online label creator.

16. 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.

16.1. Cleaning 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. Disconnect the printer from the power supply.

2. Clean the product with a dry, fibre-free cloth.

16.2. Cleaning paper sensor

Debris or dirt on the paper sensor can cause misreadings or unstable detection of the label gap.

1. Disconnect the printer from the power supply.

2. Open the printer cover.

3. Clean the paper sensor with a cotton bud dampened with alcohol.

16.3. Cleaning 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. Disconnect the printer from the power supply.

2. Let the printer cool down for about 3 minutes. The printer head can be very hot.

3. Open the printer cover.

4. Dampen a cotton bud with methanol or isopropyl alcohol.

5. Clean the head with the cotton bud. Start at the center and move to the outside.

6. Wait for the alcohol to completely evaporate.

16.4. Cleaning roller and/or paper path

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

1. Disconnect the printer from the power supply.

2. Open the printer cover.

3. Remove the installed paper roll.

4. Remove lose dust or foreign substance using dry cloth or cotton swabs.

5. Remove persistent adhesive foreign substances with a clean cloth or cotton swab dampened with methanol or isopropyl alcohol.

6. Wait for the alcohol to completely evaporate before you use the printer again.

17. 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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