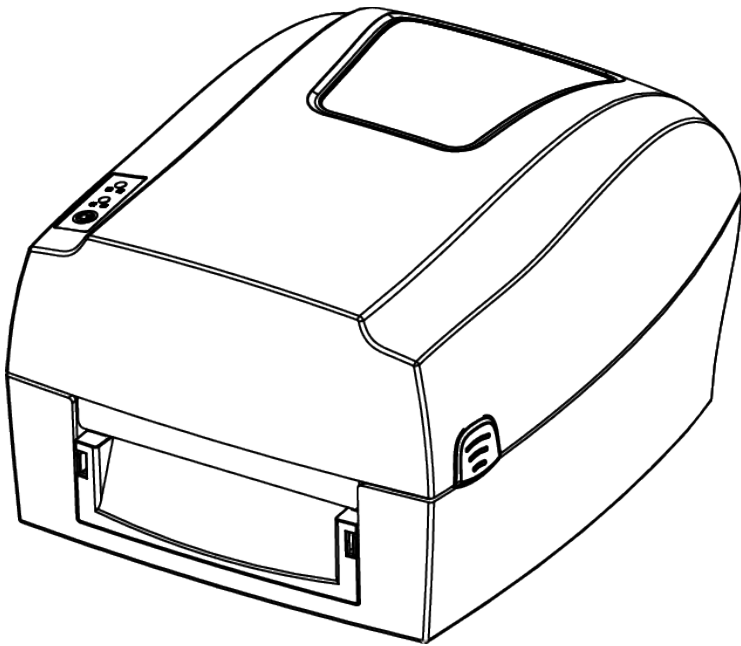




Ⓒ Operating Instructions
Thermal Transfer Label Printer

Item No.: 2734626 (RF-TTLP4-01 / HT300)



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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 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.

3. Delivery contents

- Printer
- Power adaptor
- Mains cable
- USB cable (USB-A to USB-B)
- USB memory stick
- Ribbon core
- Ribbon
- Paper roll
- Quick start guide

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

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

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!

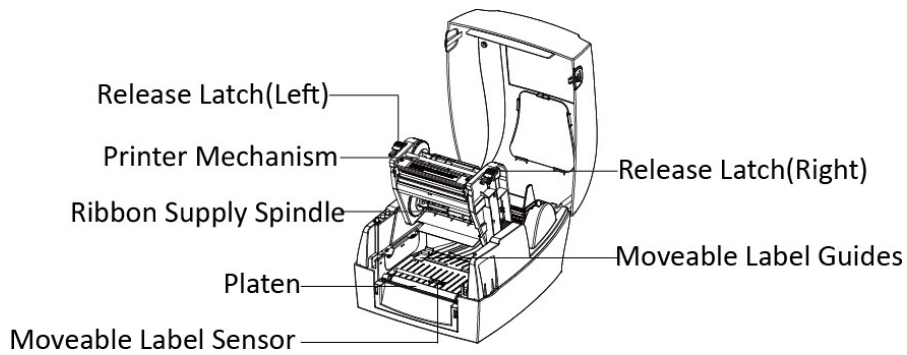
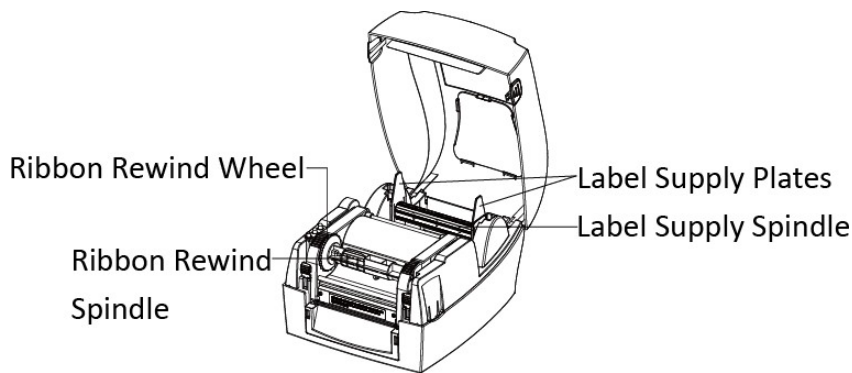
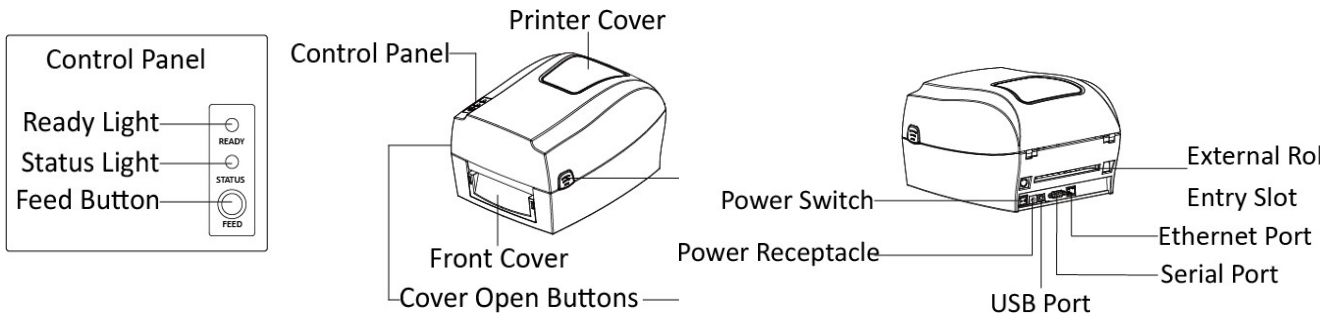
- Connect the appliance to a wall socket that can be accessed easily.
- As power supply, only use the supplied mains adaptor.
- Only connect the power adaptor to a normal mains socket connected to the public supply. Before plugging in the power adaptor, check whether the voltage stated on the power adaptor 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. Indicators

READY		STATUS		Indicator Status
Color	Action	Color	Action	
Green	Solid on			Ready
Green	Slow flash			Dump mode
Red	Solid on			Overheat of printhead
Red	Slow flash			Ribbon out
		Red	Solid on	Head up
		Red	Slow flash	Out of paper
		Red	Quick flash	Abnormal label calibration
Orange	Solid on			Out of ready
Orange	Quick flash			Data is written on flash
		Orange	Slow flash	Paper jam or paper's positioning is abnormal
		Green	Solid on	Printing
		Green	Slow flash	Pause of printing
		Green	Quick flash	Receiving data

Quick flashing: 0.1 s on/off cycle

Slow flashing: 0.5 s light/off cycle

10. Specification

Items		Parameter
Type		HT300
Printing	Printing method	Thermal transfer/ Direct thermal
	Resolution	203 dpi (8 dots/mm)
	Printing speed	Max. 127 mm/s
	Printing width	Max. 108 mm
	Printing length	15 - 1200 mm
Processor		NUC976
Memory	RAM	32 MB
	Flash	16 MB
Detection	Sensors	Adjustable reflective sensor, Fixed transmissive sensor (Central aligned), Head-up sensor, Ribbon end sensor
Media	Types	Roll-fed or Fan-fed, Die-cut or Continuous label, Tag stock, Continuous receipt paper
	Width	20 mm (0.79") – 118 mm (4.65")
	Thickness	80 µm (0.003") – 180 µm (0.007")
	Label roll diameter	127mm (5")
	Core diameter	25.4 mm (1"), 38 mm (1.5"), 76.2mm (3")
Ribbon	Types	Wax, Wax/Resin, Resin
	Width	33.8 mm (1.33") – 110 mm (4.33")
	Length	300 m
	Core diameter	25.4 mm (1")
Programming language		TSPL, ZPL, EPL
Software	Label design	HPRT BarTender Ultralite
	Seagull Driver	Windows 2000, XP, Vista, Server, 7, 8, 10, 11
Resident fonts	Bitmap fonts	Fonts 0-8 / Fonts A-H,0,GS,P-V 90°, 180°, 270° rotatable. 10 times maximum expandable in horizontal and vertical directions.
	TTF fonts	Monotype CG Triumvirate™ scalable true type font

Items		Parameter
Download Fonts	Bitmap fonts	90°, 180°, 270° rotatable, single characters 90°, 180°, 270° rotatable
	Asian fonts	16x16, 24x24. Traditional Chinese, Simplified Chinese, Japanese , Korean
Code pages		DOS437,720,737,755,775,850,852,855,856,857,858,860,862,863,864,865,866, 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 (Korean), 950(BIG5)
Barcode	1D	Code 39, Code 93, Code 128UCC, Code 128 subset A, B, C, Codabar, Interleave 2 of 5, EAN-8, EAN-13, EAN-128, UPC-A, UPC-E, EAN and UPC 2 (5) digits add-on, MSI, PLESSEY, POSTNET, RSS-Stacked, GS1 DataBar, Code 11
	2D	PDF417, Maxicode, DataMatrix, QR Code, Aztec
Interfaces	Standard	USB, RS232, Ethernet
Control Panel		Two bi-color status LEDs: Ready, Status Control key: Feed
Power		AC/DC switching power adapter Input: 100-240 V/AC, 50/60 Hz, 2.0 A Output: 24 V/DC, 2.5 A
Environment	Operation	+5 to + 40 °C, 30 – 85 % RH non-condensing
	Storage	-20 to +50°C, 10 – 90 % RH non-condensing
Physical Characteristics	Dimension (L x W x H)	285 x 226 x 171 mm
	Weight	2.26 kg

11. Setting up

11.1. Connect peripherals

The printer has the following peripheral ports:

- USB-B port
- RS-232C serial port
- RJ45 Ethernet port

To make connections:

1. Move the power switch at the rear to position **0**.
2. Connect the communication cable to the respective peripheral port.

11.2. Connect to power

1. Move the power switch at the rear to position **0**.
2. Connect the power adaptor cable to the power input socket at the rear of the printer.
3. Connect mains cable and power adaptor.
4. Connect the power adaptor to a suitable mains socket.

12. Basic operation

12.1.1. Powering on and off

1. To power on, move the power switch at the rear to position **1**.
 - > The indicator **READY** is green to indicate the ready state.
 - > If an error is detected, the indicator **READY** is red.
2. To power off, move the power switch at the rear to position **0**.

13. Installing paper and configuring paper type

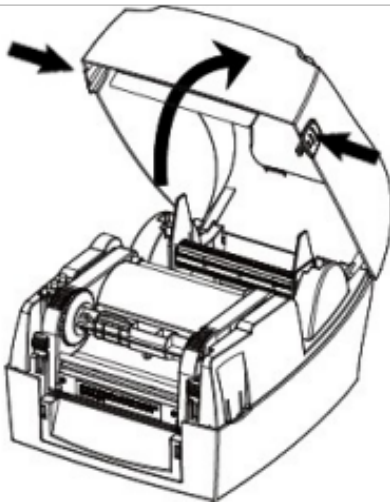
Perform the following steps to install the paper and configure the printer for the installed paper/label type:

1. Install the paper roll. For large paper rolls, follow the instructions for external paper roll installation.
2. Align the label sensor for the installed paper/label type. Only align for the paper/label type that you installed.
3. Calibrate the printer for the paper/label type you installed. Use the “Windows® Label Printer Utility” software to calibrate the paper/label type.

13.1. Installing the paper roll

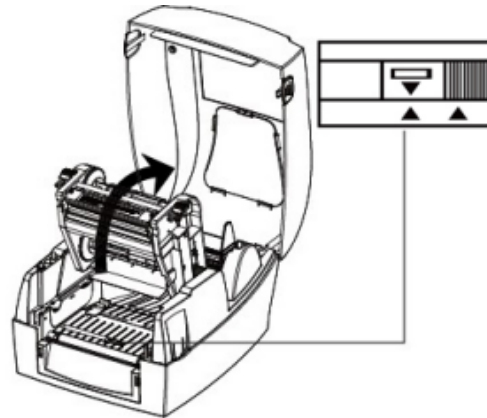
Step 1

1. Move the power switch at the rear to position **0**.
2. Press the cover release tab on either side to unlock the cover. Lift the cover.



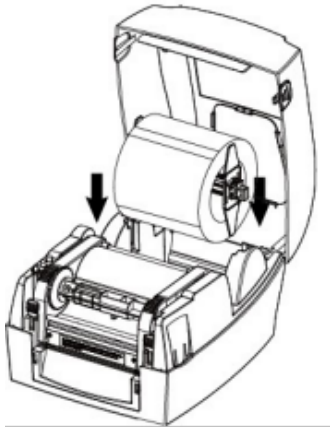
Step 2

Release and then lift the printing head. If you print multiple labels, align the arrows as indicated in the right graphic below.



Step 3

Install the paper roll.



1. Lift out the spindle.
2. Adjust the label supply plates on the spindle until the CORE size printed on the spindle matches that of your paper roll.
3. Slide the paper roll onto the spindle.
4. Install the spindle in the printer.

Step 4

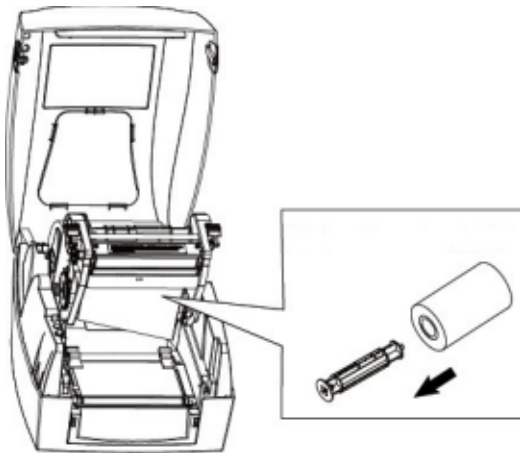
Guide the label paper and set the label guides.



1. Release and lift the printing head.
2. Below the printing head, pass the labels through the label guides.
3. Adjust the label guides to the label width.

Step 5

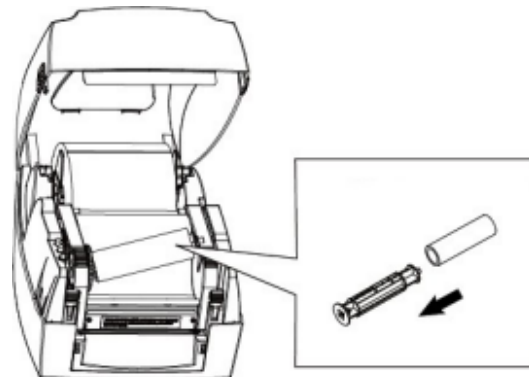
Install the ribbon.



1. Push the spring-loaded ribbon spindle in to release it. Remove the spindle.
2. Slide the ribbon onto the spindle so that the labels are fed at the front. Observe the diagram printed on the inside of the printer cover.
3. Install the spindle into the printer.

Step 6

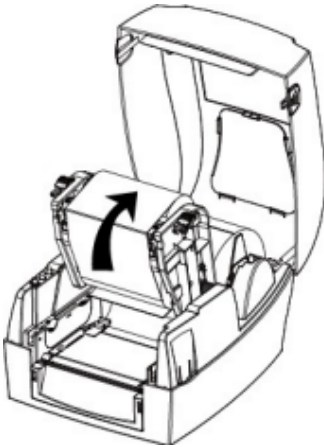
Install the rewind spindle.



1. Push the spring-loaded rewind spindle in to release it. Remove the spindle.
2. Slide the empty rewind roll onto the spindle.
3. Install the spindle into the printer.

Step 7

Link the ribbon to the rewind spindle.



1. Lift the sticky end of the ribbon and pull the ribbon out just enough to reach the rewind spindle.
2. Affix the sticky end on the rewind spindle. Observe the diagram printed on the inside of the printer cover.
3. Wind 3 layers of ribbon onto the empty rewind spindle by rotating the notched wheel.

Step 8

Lock the printing mechanism.

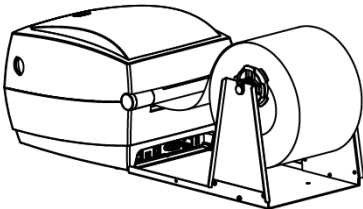


1. Push down the printing head until it locks.
2. Close the printer cover and lock it.

Next step: Align the label sensor with the paper/label type.

13.1.1. Loading paper rolls externally

For large paper rolls the printer cannot hold, load the paper roll externally. Pass the paper through the external feed slot and then through the paper guides.



13.2. Aligning label sensor with paper/label type

The label sensor detects the paper type that is installed. Align the sensor with the paper type you are using.

13.2.1. Aligning for continuous paper

For continuous paper (Fig. 1), align the sensor with the left of the photoelectric hole (Fig. 2).

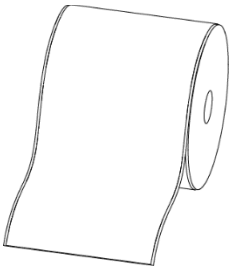


Fig. 1

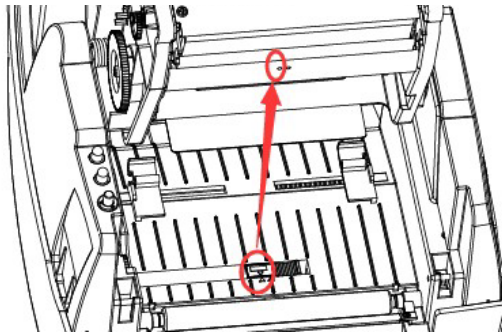


Fig. 2

Next step: Calibrate the printer for the paper/label type.

13.2.2. Aligning for labels

For labels (Fig. 3) or double-row labels (Fig. 4), align the sensor with the left of the photoelectric hole (Fig. 5).

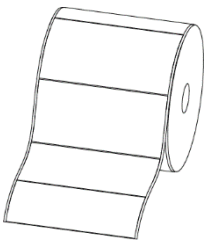


Fig. 3

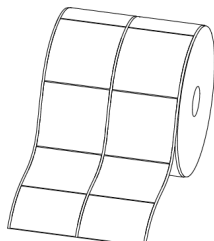


Fig. 4

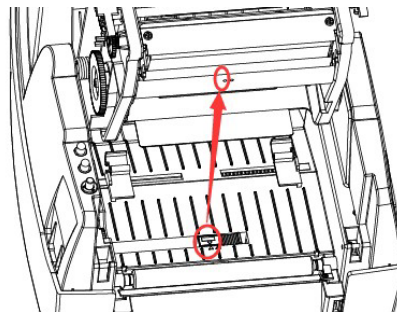


Fig. 5

Next step: Calibrate the printer for the paper/label type.

13.2.3. Aligning for punched hole label

For punched hole labels (Fig. 6), align the sensor with the right of the photoelectric hole (Fig. 7).

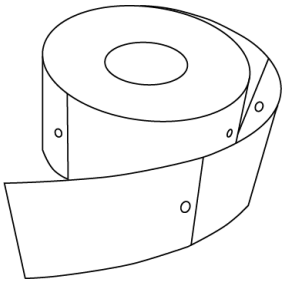


Fig. 6

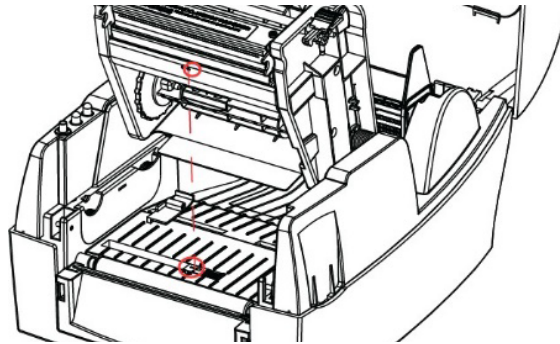


Fig. 7

Next step: Calibrate the printer for the paper/label type.

13.2.4. Aligning for blackmark paper

For blackmark paper (Fig. 8), align the sensor with the blackmark position (Fig. 9).

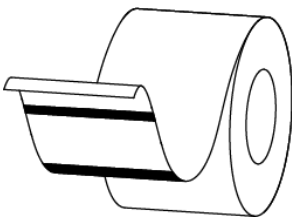


Fig. 8

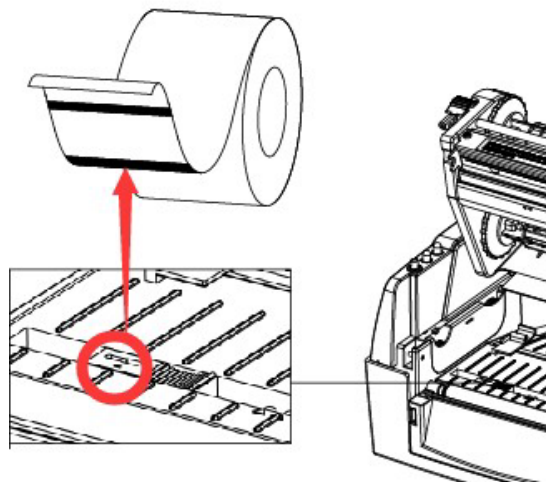


Fig. 9

Next step: Calibrate the printer for the paper/label type.

13.3. Calibrating the printer for paper/label types

Calibrate the printer to adjust the printing components to the label/paper type you have installed.

Calibrate the printer via the **Windows® Label Printer Utility** software.

When to calibrate:

Calibrate if one of the conditions applies:

- Before printing for the first time
- After cleaning the sensor
- Reusing after long term storage
- After changing label/paper types
- Printer does not print properly

Calibrating:

1. Install the **Windows® Label Printer Utility** on a Windows® computer. Follow the instructions in "[Configuring printer with Windows® Label Printer Utility Software](#)".
 2. Calibrate the printer for the paper/label type you have installed. Follow the instructions in "[Calibrating printer for label/paper type](#)".
- > You have calibrated the printer for the label/paper type that is currently installed in the printer. When printing, the printer will apply print settings suitable for the installed paper/label type.

14. Printing

14.1.1. Printing a blank label

- Press the button **FEED**.
 - > The printer prints a blank label.

14.1.2. Printing a self-test page

The self-test checks and prints the current settings.

- Press and hold the button **FEED** for approx. 1.5 seconds and release it.
 - > The printer will print a self-test page.

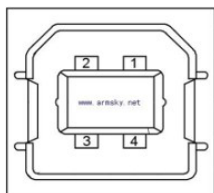
Note: You can print self-test pages via the Windows® print driver menu and the HPRT BarTender software.

14.1.3. Pausing and restarting print jobs

1. With printing in progress, press the button **FEED** to pause the printing job.
 - > The indicator **STATUS** flashes slowly.
2. Press the button **FEED** to restart the printing job.

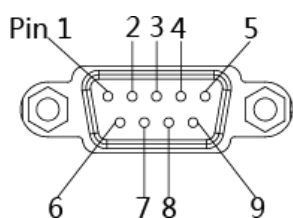
15. Interfaces

15.1. USB Interface



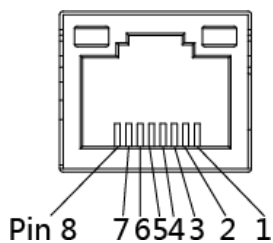
PIN	SIGNAL NAME
1	VBUS
2	D-
3	D+
4	GND

15.2. Serial port



PIN	SIGNAL NAME
1	+5VDC
2	TXD
3	RXD
4	-
5	GND
6	RTS
7	CTS
8	RTS
9	-

15.3. Ethernet Port



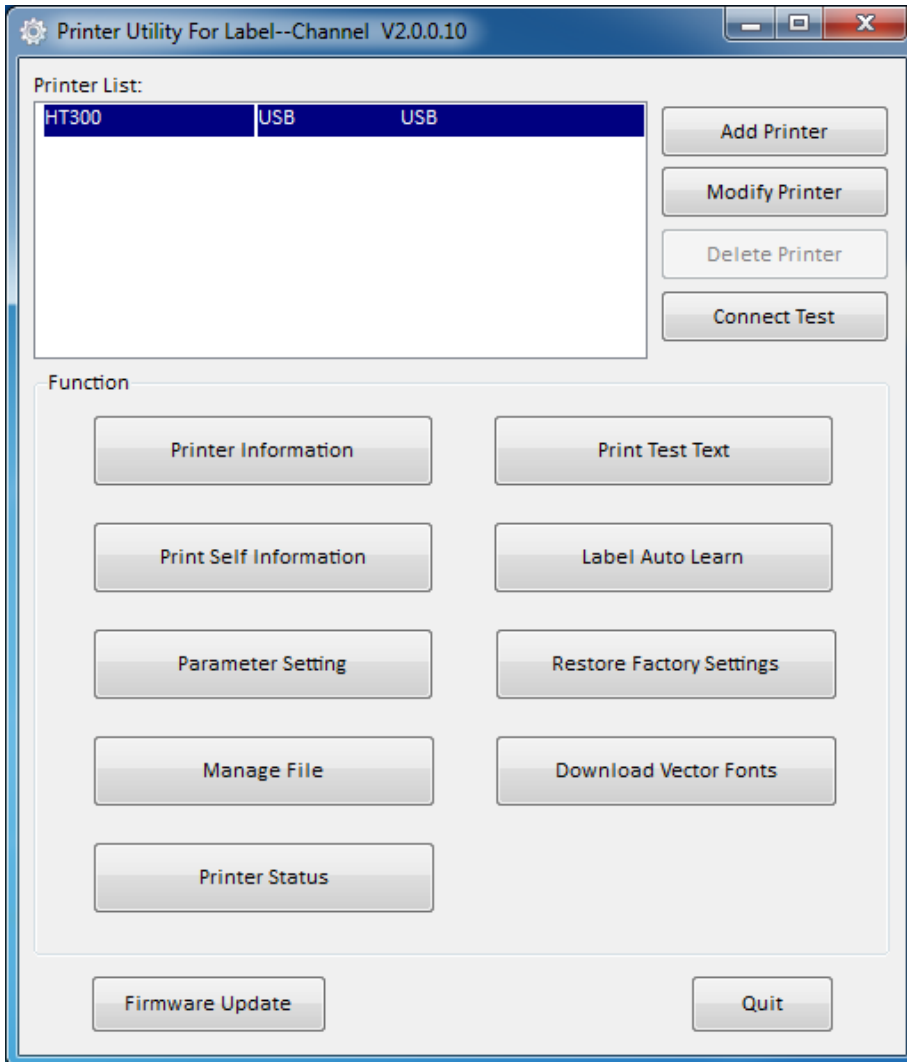
PIN	SIGNAL NAME
1	TX+
2	TX-
3	RX+
4	-
5	-
6	RX-
7	-
8	-

16. Configuring printer with Windows® Label Printer Utility Software

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

16.1. Getting started

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



16.2. 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.

16.3. 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.

The screenshot shows the 'Parameter setting' dialog box with the following configurations:

- BT Config:** BT Name: HT300 (≤10 ASCII Chars), Password: 1234 (4 Numeral)
- Reprint when error:** Disable, Enable
- Locate the platen in:** Disable, Enable
- Ethernet Setting:** Auto Assignment IP: OFF, IP address: 192.168.0.35, Subnet mask: 255.255.255.0, Default gateway: 192.168.0.1
- COM Port Setting:** Data Bits: 115200, Baud Rate: 8, Stop Bits(s): 1, Parity: NONE
- Print type:** Thermal, Ribbon
- Label paper automatic position when power on:** Disable, Enable
- Sensor Select Type:** Reflective, Transmissive
- Other:** Print Stop Position: 0 (-120~+120), Print Mode: TEAR, Judge paper mode: Label, Print density: 15, Heat Adjust: 0, Print Speed: 4, Protocol: TSC
- Language:** Codepage: USA(USA)

Buttons: Set, Close

16.4. Calibrating printer for label/paper type

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 **Label Auto Learn** (or **Label Auto Calibration**) to calibrate the printer to paper/label type that is installed.
 - > The printer prints several labels during the calibration process.

17. 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.

17.1. 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.

17.2. Installing BarTender® Ultralite

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

18. 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.

18.1. 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.

18.2. 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.

18.3. Cleaning thermal print head

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

Important: 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.

18.4. 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 loose 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.

19. 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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