

# MP Nova Mark II

MP Nova4 DT, MP Nova4 TT, MP Nova6 DT &  
MP Nova6 TT



**User Guide**

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## **Patents**

For patent information, please refer to [www.hsmpats.com](http://www.hsmpats.com).

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# Contents

- Customer Support . . . . .vii
  - Product Service and Repair . . . . .vii
  - Limited Warranty . . . . .vii
  - Send Feedback . . . . .vii
- Agency Compliance and Approvals . . . . .viii
- 1 Safety Information** . . . . . 1
  - Important Safety Requirements . . . . . 2
  - Printer Label . . . . . 3
- 2 About the Printer Basics** . . . . . 5
  - Learn About the Printer Models . . . . . 6
    - Identify the Printer Box Contents . . . . . 7
      - MP Nova4 DT & MP Nova6 DT . . . . . 7
      - MP Nova4 TT & MP Nova6 TT . . . . . 8
    - Identify the Parts of the Printer . . . . . 9
      - MP Nova4 & 6 DT – Printer Parts . . . . . 9
      - MP Nova4 & 6 TT – Printer Parts . . . . . 10
    - Open and Close the Printer Cover . . . . . 11
      - Open the MP Nova4 & 6 DT Cover . . . . . 11
      - Close the MP Nova4 & 6 DT Cover . . . . . 11
      - Open the MP Nova4 & 6 TT Cover . . . . . 12
      - Close the MP Nova4 & 6 TT Cover . . . . . 12
- 3 How to Set Up Your Printer** . . . . . 13
  - Printer Overview . . . . . 14
    - MP Nova4 & 6 DT . . . . . 14
    - MP Nova4 & 6 TT . . . . . 15
  - Peel-Off Overview . . . . . 16
    - MP Nova4 & 6 DT Peel-Off . . . . . 16
    - MP Nova4 & 6 TT Peel-Off . . . . . 17
  - Insert Media . . . . . 18
    - MP Nova4 & 6 DT/TT . . . . . 18
    - Peel-Off Kit . . . . . 22
  - Insert Ink Ribbon . . . . . 26
    - MP Nova4 & 6 TT . . . . . 26
- 4 Printer Configuration** . . . . . 29
  - Printer Configuration Tools . . . . . 30

Printer Configuration Utility (NETira CT) . . . . .	31
USB Connection Requirements . . . . .	32
How to Use NETira CT Configuration Utility . . . . .	33
Windows Driver . . . . .	36
<b>5 Printer Operation . . . . .</b>	<b>39</b>
Front Panel . . . . .	40
LED Indicators . . . . .	40
Control Button . . . . .	41
Media Calibration . . . . .	42
Quick Calibration . . . . .	42
Manual Media Calibration . . . . .	43
Internal Labels . . . . .	45
Database Configuration Label and HEX-Dump Mode . . . . .	45
Media Positioning Sensor Settings . . . . .	46
Printhead Adjustments . . . . .	47
Printhead Position Adjustment . . . . .	47
Printhead Pressure Adjustment . . . . .	49
<b>6 Printer Maintenance . . . . .</b>	<b>51</b>
Printhead and Roller Cleaning . . . . .	52
Changeable Parts . . . . .	54
Roller Replacement . . . . .	54
Printhead Replacement . . . . .	58
<b>7 Troubleshoot Your Printer . . . . .</b>	<b>63</b>
Troubleshooting Tips . . . . .	64
<b>A Printer Specifications . . . . .</b>	<b>67</b>
MP Nova4 DT & TT . . . . .	68
MP Nova6 DT & TT . . . . .	69
<b>B Kits, Parts &amp; Consumables . . . . .</b>	<b>71</b>
Printer Options . . . . .	72
Peel-Off Kit . . . . .	72
LTS – Label-Taken Sensor . . . . .	72
215-mm Kit . . . . .	72
Spare Parts . . . . .	73

Consumables . . . . . 74  
    General Media . . . . . 74

# Customer Support

If you need assistance installing or troubleshooting your product, contact us by using one of these methods:

**Knowledge Base:** [www.hsmknowledgebase.com](http://www.hsmknowledgebase.com)

Our Knowledge Base provides thousands of immediate solutions. If the Knowledge Base does not help you solve your problem, log into the Technical Support Portal to submit your problem or ask your question.

**Technical Support Portal:** [www.hsmsupportportal.com](http://www.hsmsupportportal.com)

Log into the Technical Support Portal to search our Knowledge Base, submit your problem or question, request a call back, or provide feedback. When filling out one of the forms, provide as much detail as possible. You can even include attachments.

**Telephone:** [www.honeywellaidc.com/locations](http://www.honeywellaidc.com/locations)

For our latest contact information, please check our website.

## Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. To find your service center, go to [www.honeywellaidc.com](http://www.honeywellaidc.com) and select **Support > Contact Support > Service and Repair**. Contact your service center to obtain a Return Material Authorization number (RMA #) before you return the product.

To obtain warranty or non-warranty service, return your product to Honeywell (postage paid) with a copy of the dated purchase record.

## Limited Warranty

For warranty information, go to [www.honeywellaidc.com](http://www.honeywellaidc.com) and click **Resources > Warranty**.

## Send Feedback

Your feedback is crucial to the continual improvement of our documentation. To provide feedback about this manual, please contact the Technical Communications department directly at [ACSHSMTechnicalCommunications@honeywell.com](mailto:ACSHSMTechnicalCommunications@honeywell.com).

# Agency Compliance and Approvals

## *Certification and Compliance Marks and Descriptions*



### **UL = Underwriters Laboratories USA**

UL60950-1 2nd Edition

CSA C22.2 No. 60950-1-07 2nd Edition

The manufacturer declares under sole responsibility that this product conforms to the following standards or other normative documents:

- CFR47 FCC part is subpart B:2014
- ICES-003-2012
- EMC: EN 55022: 2010 + AC:2011, Class A
- EMC: EN 50024 (2010)



### **CE = European Commission**

- Safety: This product complies with the requirements of IEC 60950-1: 2005 2nd Edition; AM1: 2009 + AM2: 2013
- ROHS: 2011/65/EC
- LVD: 2006/95/EC
- EMC: 2004/108/EC
- RTT&E: 1995/5/EC

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the use may be required to take adequate measures.



### **FCC = Federal Communications Commission**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



## ***Certification and Compliance Marks and Descriptions***



**VCCI = Voluntary Control Council for Interference  
Japan**

この装置は、クラス A 情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。 VCCI-A

# 1

## Safety Information

Please read the following safety information prior to setting up or operating your printer.

## Important Safety Requirements

Honeywell disclaims all responsibility regarding the CE directive if the printer is used, altered or installed in any way other than described in this manual.

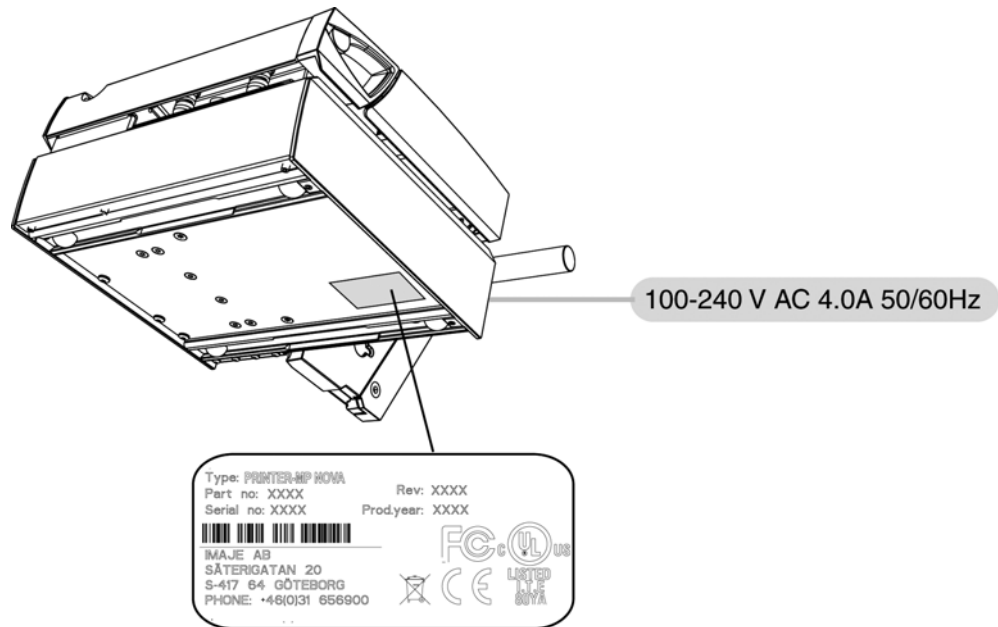


This symbol is used to indicate circumstances that may be dangerous to the user or that cause damage to the equipment.

- Never use sharp or pointed tools when cleaning or replacing the printhead.
- Remember to handle the printhead with care.
- Don't use any sharp objects to remove labels from the print roller.
- The MP Nova Mark II printers have double fuses. The fuses are rated at 250 V, 4.0 A, AT-type. Fuses must be UL-approved.
- The circuit board contains a battery. Used batteries should be disposed of in accordance with the manufacturer's instructions.
- Please read all instructions before using the printer for the first time.
- The printer should be connected to the power supply indicated on the voltage plate. If you are unsure of the type of power supply available, please contact Honeywell service personnel.
- The printer is equipped with a plug suitable for grounded sockets. This is a safety measure. If the plug does not fit the power socket, a qualified electrician must replace it.
- We do not recommend the use of extension cables.
- The power cable must not be subjected to pressure. Ensure that the printer is not placed anywhere where a person could stand on the power cable.
- Check that the power switch is off (in the '0' position) before connecting the power cable.
- Do not use liquids or aerosols when cleaning this printer. Always use Honeywell's special cleaning cloths.
- Do not attempt to open the electronic unit or other sealed parts! The user cannot service these parts.
- Do not use cables that exceed 5 m (16.5 in.) in length for RS-232 communication. Signals may be corrupted or lost as a result. This is particularly important in environments where there are high levels of electrical interference.
- Disconnect the power to the printer and call in qualified personnel under the following conditions:
  - The power cable or plug is damaged or worn.
  - Liquid has been spilled on the printer.

- Rain or water has got into the printer.
- The printer is not functioning correctly despite the user has followed the instructions for use.
- You have dropped the printer or the casing has been damaged.
- The printer is not functioning correctly and requires service.

## Printer Label



*Printer Sign: Use this illustration to identify printer information.*



# 2

## About the Printer Basics

Use this chapter to learn about the MP Nova Mark II printer basic information, including available models, parts and open/close functionality.

## Learn About the Printer Models

The MP Nova Mark II printers, with their unique technology, have been developed to offer a range of different applications. Thank you for choosing a Honeywell printer for your business needs. The high quality, user-friendliness and simple maintenance procedures of the MP Nova Mark II direct thermal (DT) and thermal transfer (TT) printers make them the perfect choice.

They are built on a platform with advanced software, offering wide possibilities from simple local solutions to integrated solutions working over the Internet.

Applications include:

- Manufacturing
- Warehousing
- Healthcare
- Transport
- Ticketing

### ***MP Nova Mark II Printer Models***



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**MP Nova4 Mark II DT, 203-dpi**

Item number: 53-2211-01

**MP Nova6 Mark II DT, 203-dpi**

Item number: 53-2213-01

**MP Nova4 Mark II DT, 300-dpi**

Item number: 53-2211-02



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**MP Nova4 Mark II TT, 203-dpi**

Item number: 53-2213-01

**MP Nova6 Mark II TT, 203-dpi**

Item number: 53-2214-01

**MP Nova4 Mark II TT, 300-dpi**

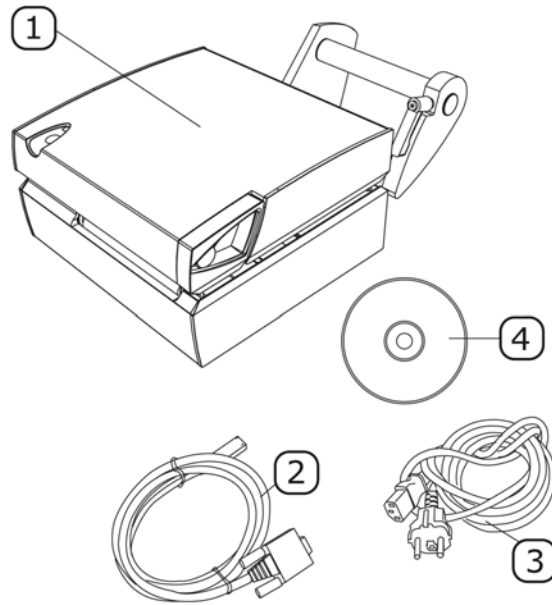
Item number: 53-2212-02

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## Identify the Printer Box Contents

### MP Nova4 DT & MP Nova6 DT

The following items should be included in the box when you receive your new MP Nova4 DT or MP Nova6 DT printer:

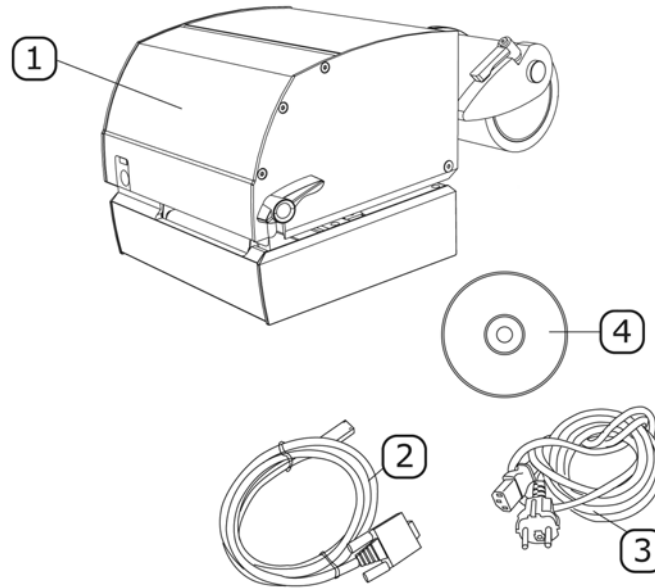


- 1 1 x MP Nova4 DT or MP Nova6 DT
- 2 1 x Communication cable (Serial RS-232)
- 3 1 x Power cable
- 4 1 x Accessories CD



## MP Nova4 TT & MP Nova6 TT

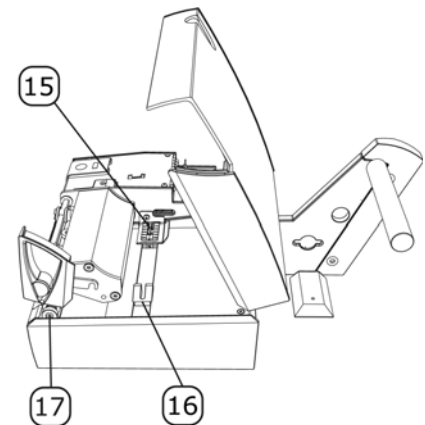
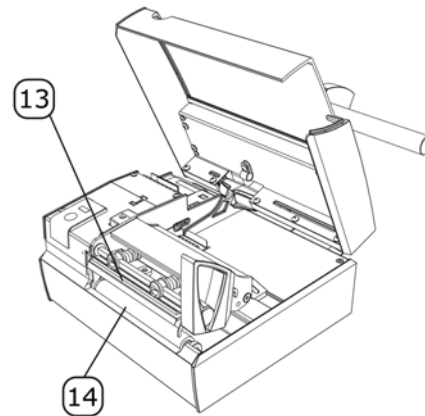
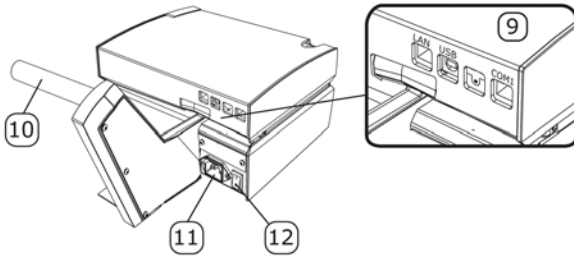
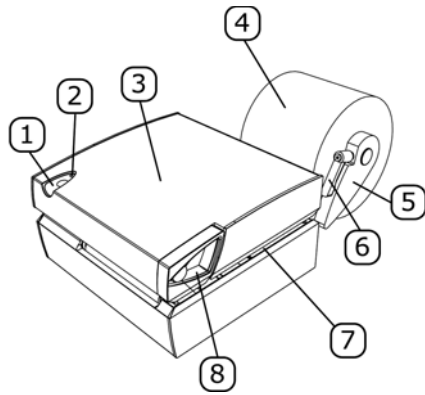
The following items should be included in the box when you receive your new MP Nova4 TT or MP Nova6 TT printer:



- 1 1 x MP Nova4 TT or MP Nova6 TT
- 2 1 x Communication cable (Serial RS-232)
- 3 1 x Power cable
- 4 1 x Accessories CD

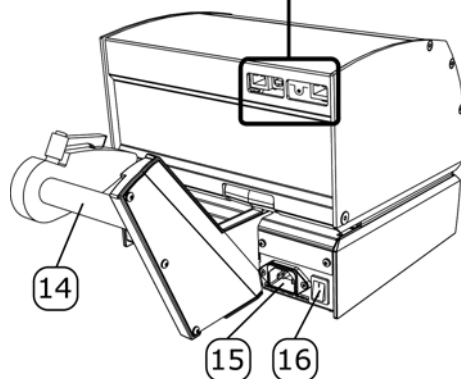
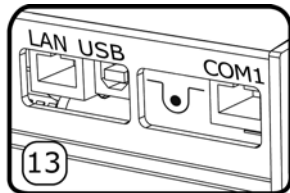
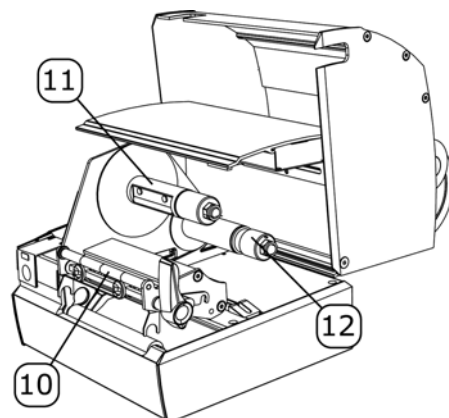
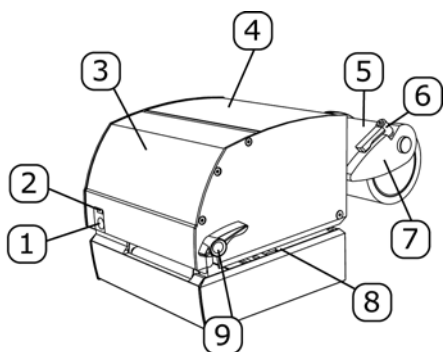
# Identify the Parts of the Printer

## MP Nova4 & 6 DT – Printer Parts



- 1 Print button
- 2 Status lamp (LED)
- 3 Cover
- 4 Media roll
- 5 Roll steering
- 6 Roll-guide lock
- 7 Media track
- 8 Handle
- 9 Communication ports
- 10 Unroll shaft
- 11 Power connection
- 12 Power switch
- 13 Printhead
- 14 Print roll
- 15 Media Positioning Sensor (MPS)
- 16 Paper guide
- 17 Outer plate holder

## MP Nova4 & 6 TT – Printer Parts

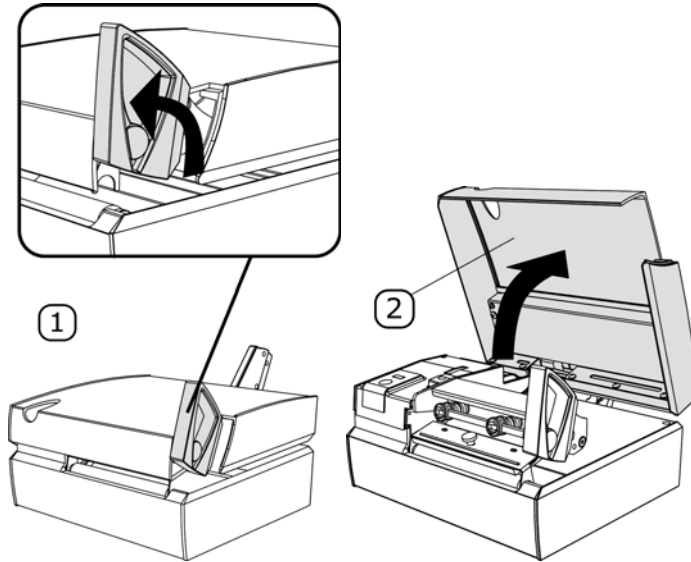


- 1 Print button
- 2 Status lamp (LED)
- 3 Front cover
- 4 Rear cover
- 5 Media roll
- 6 Roll-guide lock
- 7 Roll steering
- 8 Media track
- 9 Handle
- 10 Ink-ribbon guide
- 11 Rewind spool
- 12 Unwind spool
- 13 Communication ports
- 14 Unroll shaft
- 15 Power connection
- 16 Power switch

## Open and Close the Printer Cover

### Open the MP Nova4 & 6 DT Cover

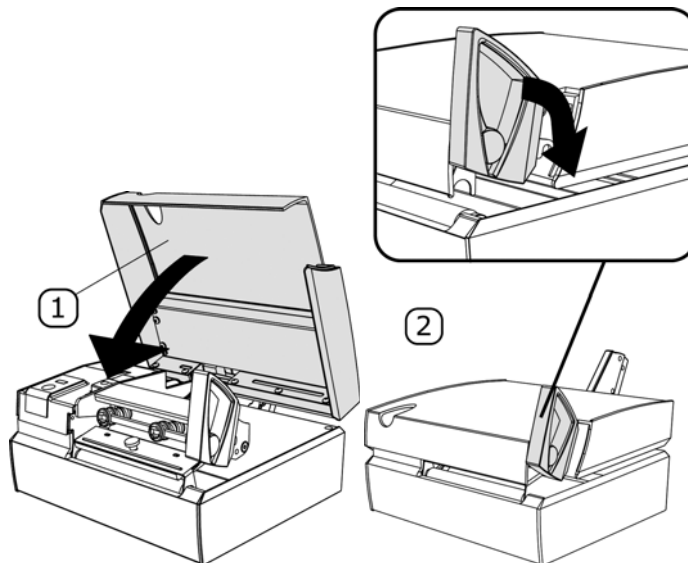
- 1 Pull the handle.



- 2 Open the cover.

### Close the MP Nova4 & 6 DT Cover

- 1 Push down to close the cover.



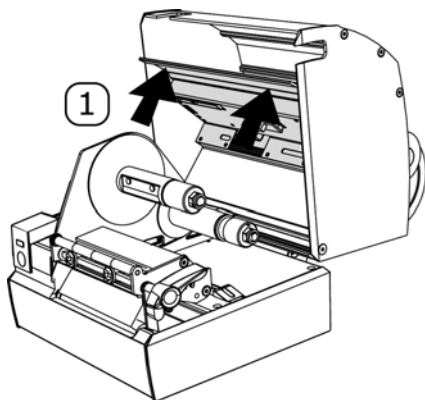
- 2 Fold the handle. (Printhead will be engaged.)



**Note:** Make sure the handle is folded all the way down.

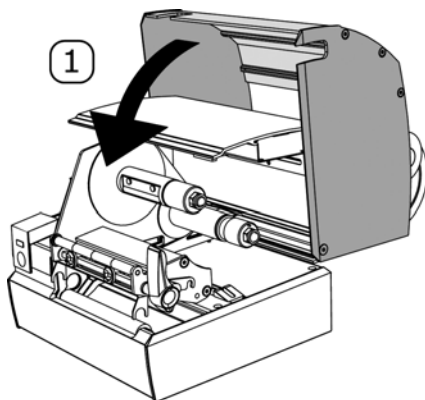
## Open the MP Nova4 & 6 TT Cover

- 1 Open cover. The inner cover slides automatically up together with the cover.



## Close the MP Nova4 & 6 TT Cover

- 1 Close cover. The inner cover slides automatically down together with the cover.



# 3

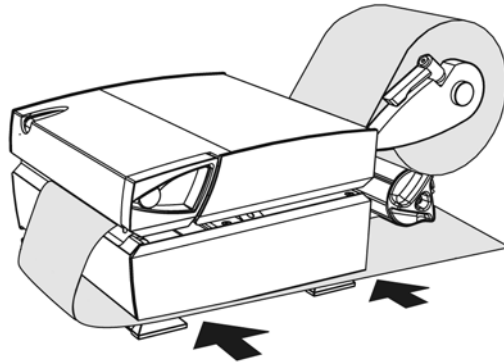
## How to Set Up Your Printer

Learn to use the printer features, including how to insert the media and ink ribbon, and connect to a power source.

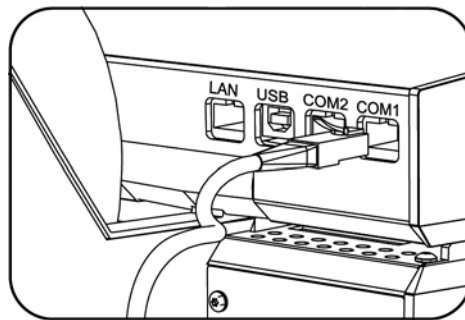
## Printer Overview

### MP Nova4 & 6 DT

- 1 Insert media, MP Nova4 & 6 DT. Refer to [“Insert Media” on page 18](#) for detailed instructions.

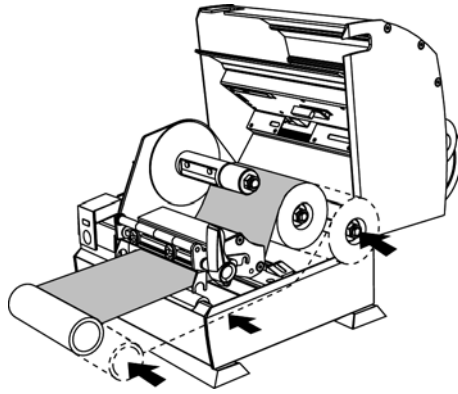


- 2 Connect the printer to a PC.

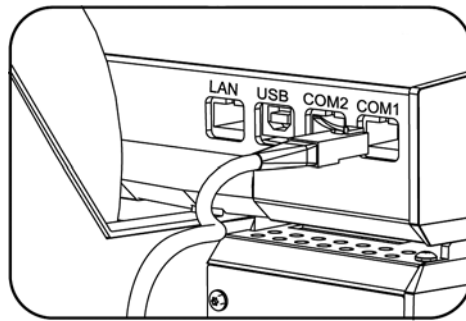


## MP Nova4 & 6 TT

- 1 Insert media. Refer to [“Insert Media” on page 18](#) for detailed instructions.
- 2 Insert ink ribbon.



- 3 Connect the printer to a PC.

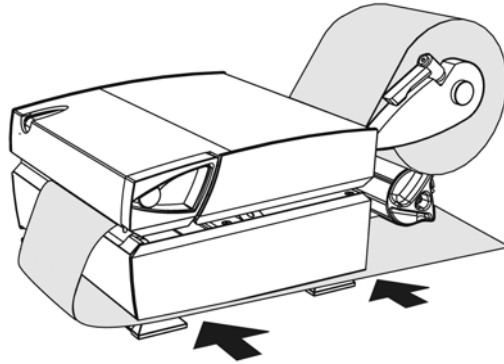




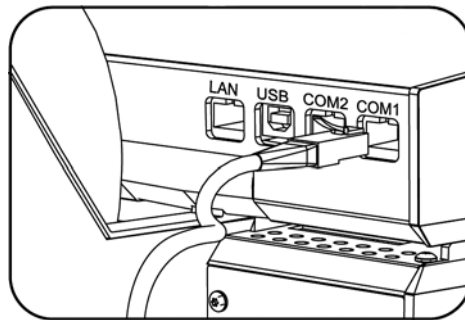
## Peel-Off Overview

### MP Nova4 & 6 DT Peel-Off

- 1 Insert peel-off media. See [“Peel-Off Kit” on page 22.](#)

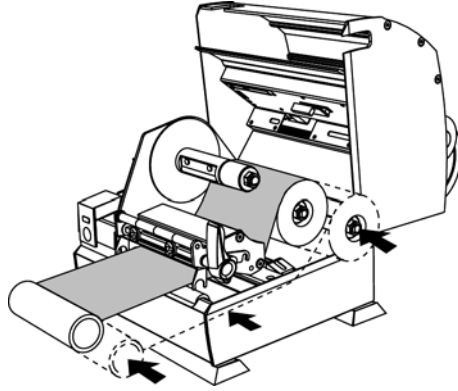


- 2 Connect the printer to a PC.

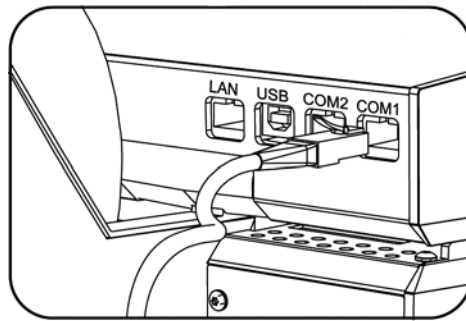


## MP Nova4 & 6 TT Peel-Off

- 1 Insert peel-off media. See [“Peel-Off Kit” on page 22.](#)
- 2 Insert ink ribbon.



- 3 Connect the printer to a PC.



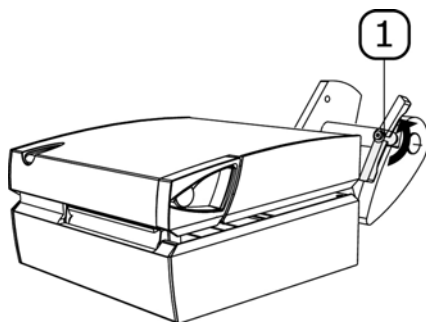
## Insert Media

### MP Nova4 & 6 DT/TT

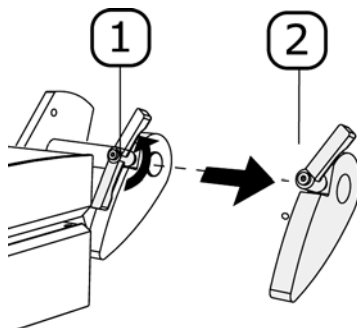


**Note:** The pictures shown describe an **MP Nova4 DT**. The process works just the same for the **MP Nova6 DT** and **MP Nova4 & 6 TT**.

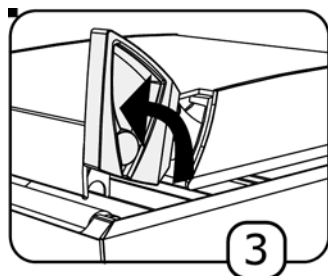
- 1 Undo the roll-guide lock.



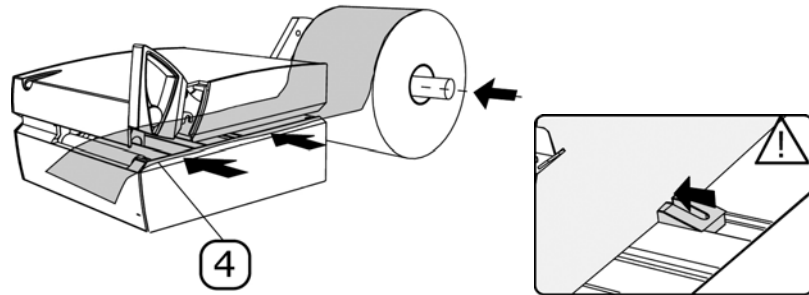
- 2 Remove the roll guide from the media shaft.



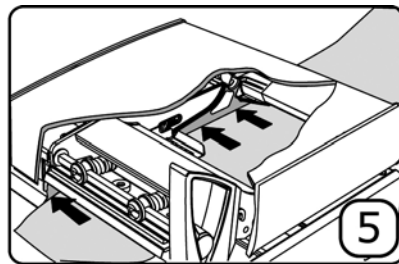
- 3 Pull handle to lift the printhead from the roller.



- 4 Position a new media roll onto the spool and insert the media from the side into the printer's media track.

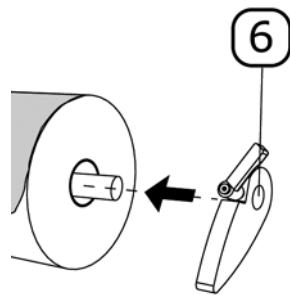


- 5 Check that the media is aligned with the internal printer wall.

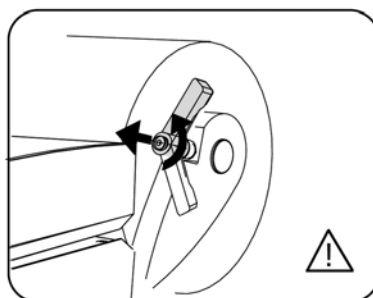
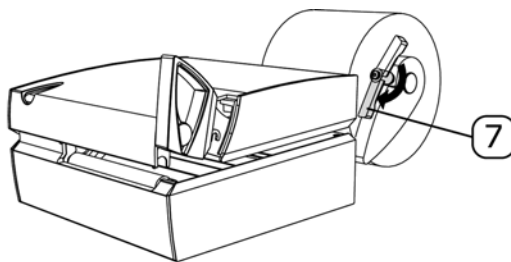


**Note:** Make sure the outer-roll guide suits the width of the media. If necessary, open the cover and adjust the outer-roll guide. (Only necessary when changing media type.)

- 6 Put the roll guide on the unroll shaft. Push it against the roll for optimum control.

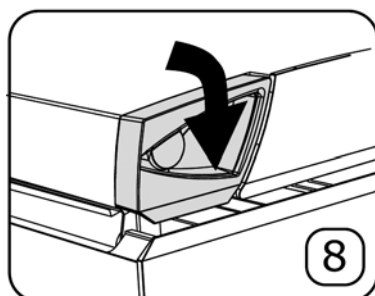


- 7 Lock the roll-guide lock (turn the handle clockwise). The roll steering should guide the roll, but not be tight.

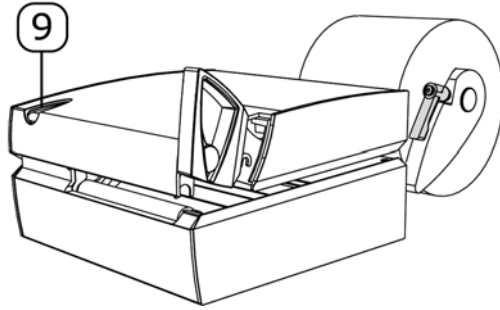


**Note:** If the roll-guide lock cannot be properly tightened (but not too tight), lift the lock upwards, rotate it back half a turn, lower it and retighten.

- 8 Fold the handle (the printhead folds automatically onto the roller).



- 9 Press the print button a few times until the printer automatically finds the correct position of the media.



**Note:** If necessary, make a test printout and auto adjust the media positioning sensor.

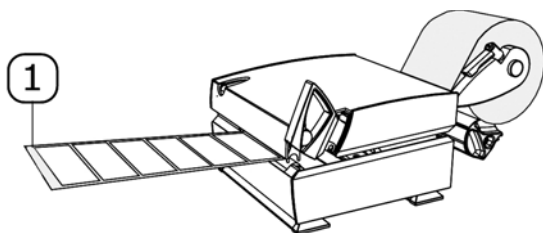
## Peel-Off Kit



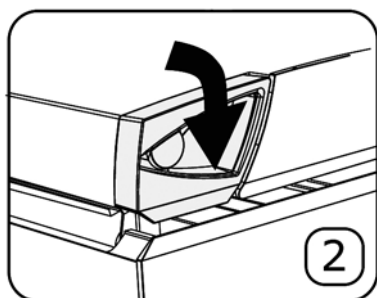
**Note:** The pictures shown describe an **MP Nova4 DT Peel-Off**. The process works just the same for the **MP Nova4 & 6 TT Peel-Off** and **MP Nova6 DT Peel-Off**.

First insert the media. The peel-off media inserts in the same way as the media.

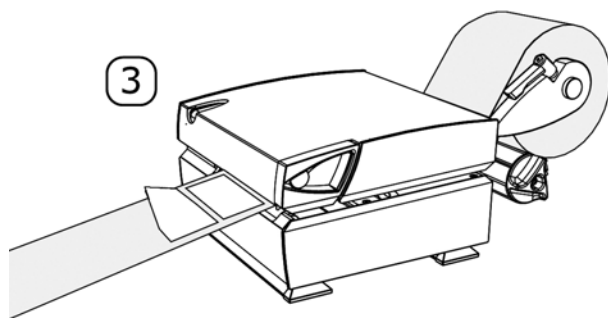
- 1 Lift the handle and then pull 40 cm (15.8 in.) of the label roll out of the printer.



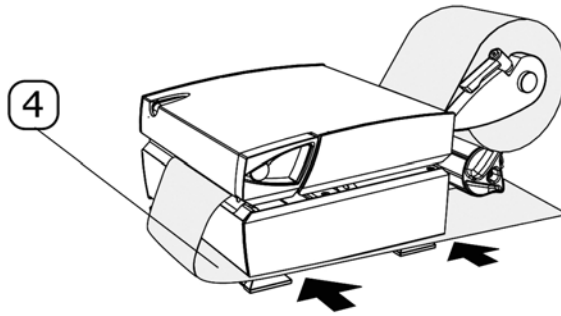
- 2 Fold the handle.



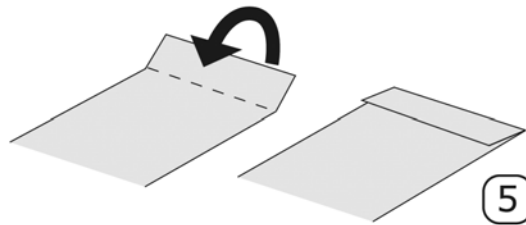
- 3 Remove all of the labels on the exposed section.



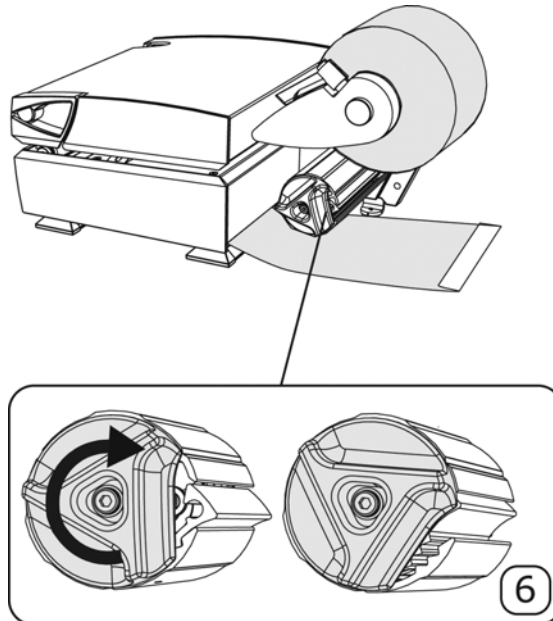
- 4 Pull the backing paper under the printer.



- 5 Fold 2 cm (0.79 in.) of the backing paper to make it slide more easily into the rewind-unit slot.

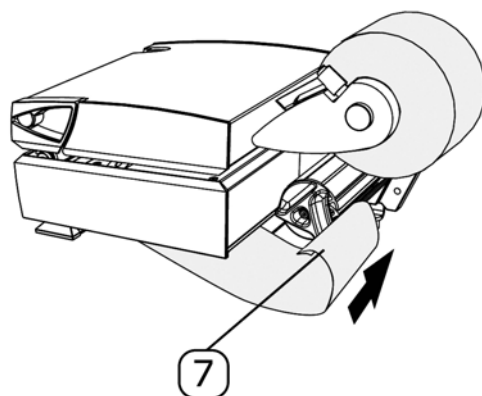


- 6 Open the rewind-unit slot by turning the knob clockwise while holding the cylinder firmly.

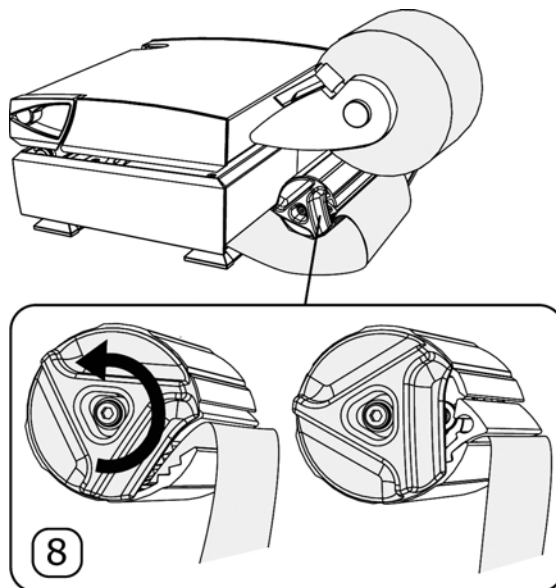




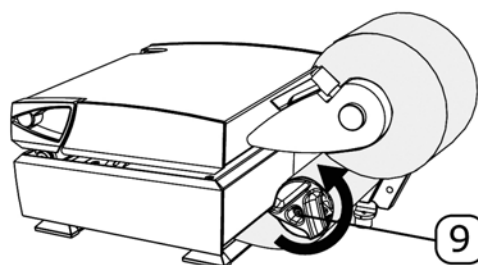
- 7 Slide the backing paper into the rewind-unit slot.



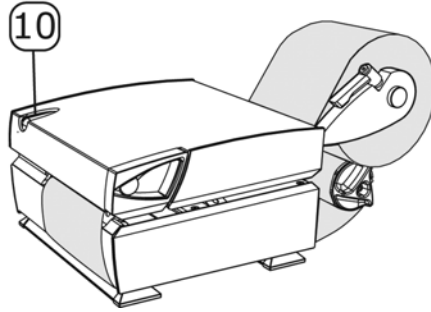
- 8 Close the rewind-unit slot by turning the knob counter-clockwise while holding the cylinder and backing paper firmly.



- 9 Roll the backing paper around the rewind unit by turning the knob counter-clockwise. This increases the tension of the backing paper.



- 10 Press the print button a few times until the printer automatically finds the correct position of the media.

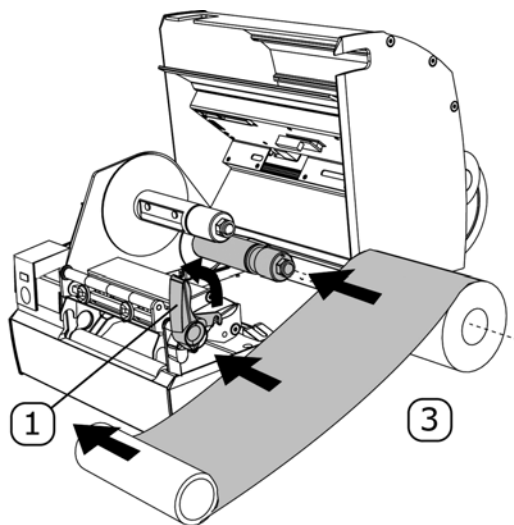


**Note:** If necessary, make a test printout and auto adjust the Media Positioning Sensor (MPS).

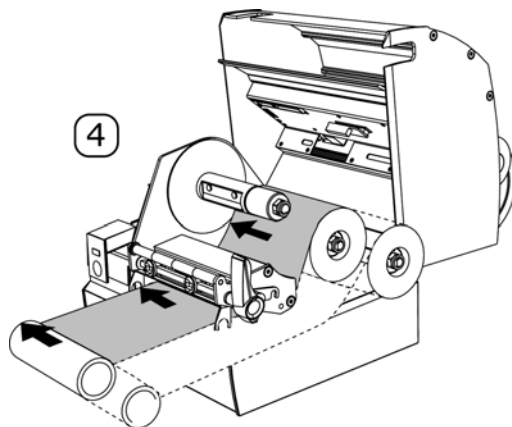
## Insert Ink Ribbon

### MP Nova4 & 6 TT

- 1 Undo the handle and open the cover.
- 2 Remove the old ink ribbon.

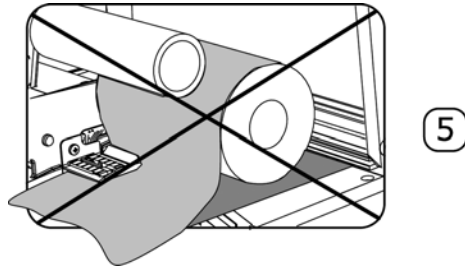


- 3 Slide the new ink ribbon onto the spool.
- 4 Feed the ink ribbon under the printhead.

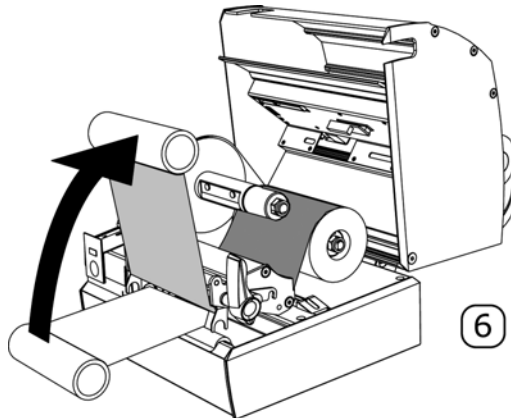


**Note:** Check that the inked side of the ribbon is facing downward.

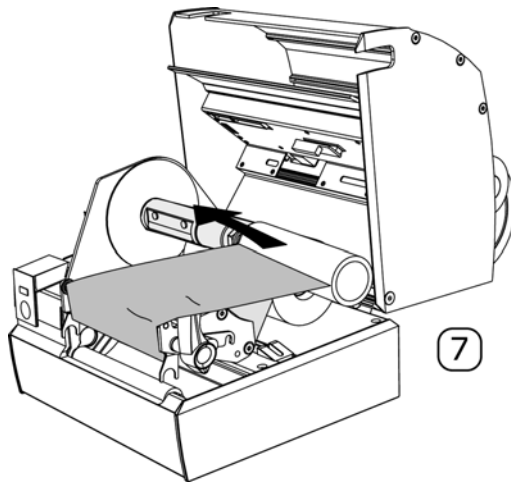
- 5 The ink ribbon **must not** pass under the MPS (Media Positioning Sensor).



- 6 Move the empty roll, which will collect the used ink ribbon, up and around the printhead.

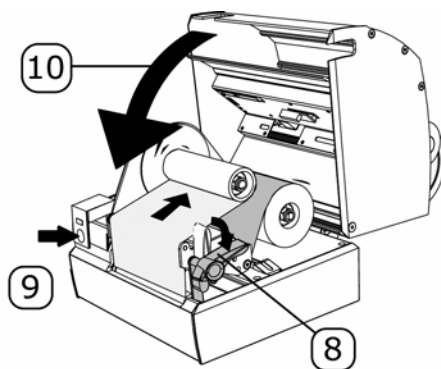


- 7 Slide the roll onto the takeup spool.



- 8 Fold the handle.

- 9** Press the print button. The ink ribbon will automatically wind around the rewind spool, thus tensioning the ink ribbon.



- 10** Close the cover.

# 4

## Printer Configuration

Please read the following chapter to learn about the available configuration tools for your printer.

## Printer Configuration Tools

The printer contains many user-adjustable parameters. These parameters are configurable using a few methods. The table below lists the most popular ways of configuring the printer and the advantages of each. Choose the method that best addresses your application.

### Printer Configuration Methods

Method	Description	Pros	Cons
NETira CT program*	NETira CT (located on the Accessories CD or available on website at <a href="http://www.honeywellaidc.com">www.honeywellaidc.com</a> for download) is a Windows <sup>®</sup> -based configuration utility that allows the user to make changes to the existing printer set up via a direct connection to the host computer's serial, USB or LAN connection.	Easy to use, gives the user the most control of the printer.	Software must be installed on a Windows-based host computer.
Internal web pages	Internal web pages are simple HTML pages that can be accessed with any web browser via the Ethernet port.	Easy to use. Printer can be configured from any host connected to the network regardless of physical location or host operating system. No additional software required.	Printer must be connected via Ethernet. Depending on the complexity of the network, initial connection may not be possible until network parameters are set via another method.
Windows driver	The Windows printer driver (located on the Accessories CD).	Many applications require use of driver for printing from third-party applications. This can be an all-in-one solution for some users that do not require advanced set up.	Requires installation of a driver on a Windows-based host. Only basic parameters can be configured.
DPL programming commands	DPL Programming Language commands can be built into custom label formats or sent individually to the printer. See the DPL Programmer Manual.	DPL commands can be built directly into label formats that can configure the printer on the fly.	DPL programming knowledge needed.

\* Recommended method.

## Printer Configuration Utility (NETira CT)

NETira CT (located on the Accessories CD) is a Windows-based configuration utility that allows the user to make changes to the existing printer set up via a direct connection to the host computer's serial, USB or Ethernet port.

NETira CT features include the following:

- Allows real-time control/query of printer configuration
- Define and save optimal configurations for applications
- Saved configurations can be shared with other printers and sent via email
- Download files, formats and fonts
- Query memory modules



**Note:** Be sure to use the NETira CT utility located on the Accessories CD that is included with your printer. Older versions might not operate correctly with some printers. For the latest version please visit our web site at [www.honeywellaidc.com](http://www.honeywellaidc.com).



**Note:** Be sure your printer's firmware version is **15.04\_0001 or greater**. Firmware is available from our website, for the latest version please visit our website at [www.honeywellaidc.com](http://www.honeywellaidc.com).



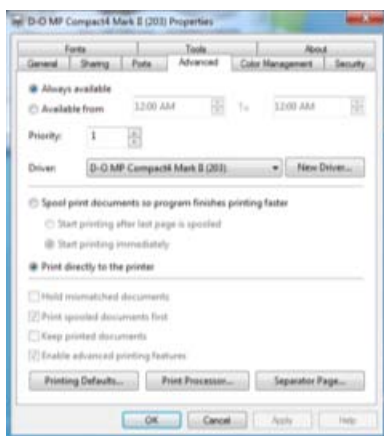
## USB Connection Requirements

Using NETira CT with a USB connection requires a Windows driver to be installed and the driver to be set to **“Print directly to the printer.”** Other connections (e.g., serial and LAN) do not require the Windows driver or this setting. Install the Windows driver as described in on **“Windows Driver”** on [page 36](#). Then follow the steps below to set the driver settings:

- 1 Open the list of installed printers on your PC.
  - Windows XP: Click the **Start** button > **Settings** > **Printer and Faxes**.
  - Windows 7: Click the **Start** button > **Devices and Printers**.
- 2 Right-click on the printer and select **Properties** from the drop-down menu.

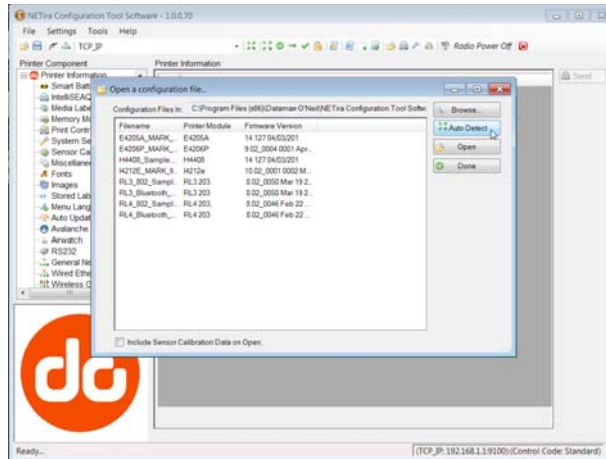


- 3 In the driver **Properties** window, click on the **Advanced** tab.
- 4 Click the **“Print directly to the printer”** radio button. Then, click **OK**. USB connections will now be available for NETira CT.

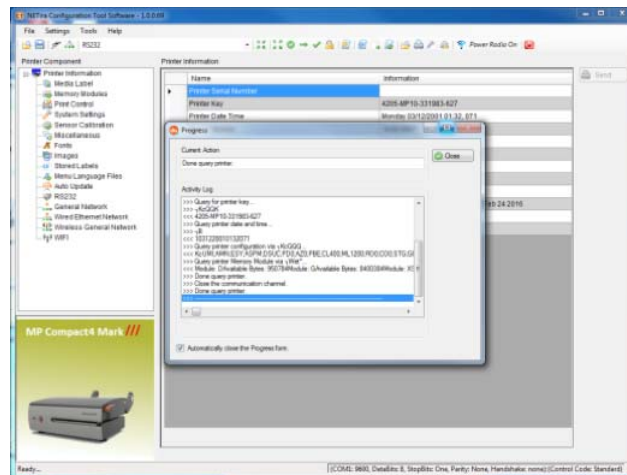


## How to Use NETira CT Configuration Utility

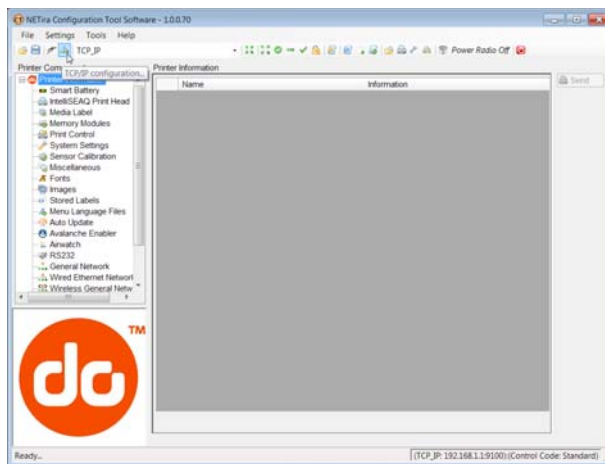
- 1 Once installed, launch the NETira CT configuration utility.
- 2 Be sure the printer is turned on. Connect the host to the printer.
  - a For serial connections: Query the printer by using the **Auto Detect** button. This will connect the printer and retrieve the setting currently stored in the printer.



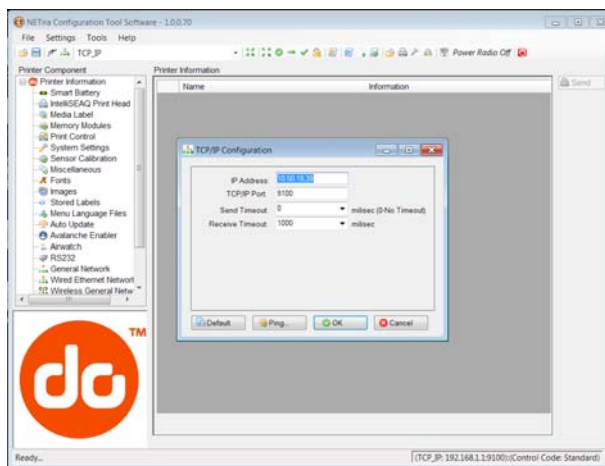
- b For USB connections: Close the **Open a configuration file...** dialogue box.
  - In the toolbar from the drop-down menu, select the appropriate port. Next, click on the **Query Printer** icon.



- c For Ethernet connections: Close the **Open a configuration file...** dialogue box.
  - In the toolbar, click on the **TCP/IP Configuration** icon.

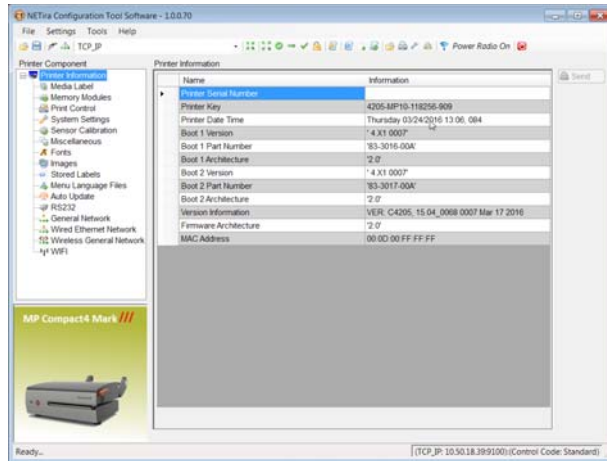


- In the TCP/IP Configuration dialogue box, enter the IP address of the printer, port: 9100, and click **OK**.  
The IP address is displayed on the printer's Network Report and Configuration labels.

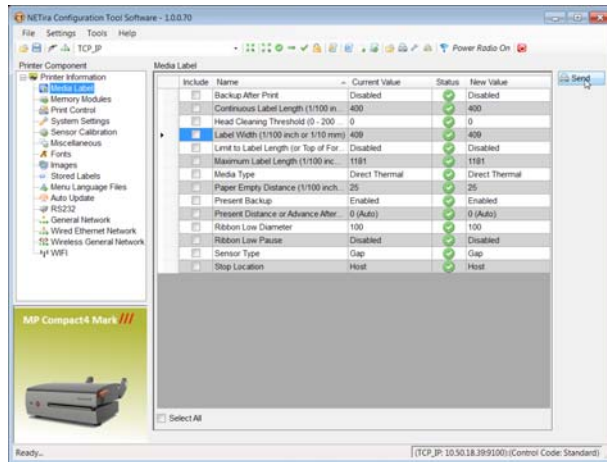


- In the toolbar from the drop-down menu, select **TCP\_IP**. Next, click on the **Query Printer** icon.

- 3 At this point, you may browse the **Printer Component** categories and make any changes necessary to the printer configuration.



- 4 Once complete, send the new settings to the printer using the **Send** button.



**Note:** When sending the changes to the printer, only the changes displayed on the current page will be sent. You must click the **Send** button for each page that has been modified.

## Windows Driver

The Windows driver is located on the Accessories CD included with your printer. For the latest version please visit our website at [www.honeywellaidc.com](http://www.honeywellaidc.com).



**Note:** Be sure your printer's firmware version is **15.04\_0001 or greater**. Firmware is available from our website. For the latest version please visit our website at [www.honeywellaidc.com](http://www.honeywellaidc.com).

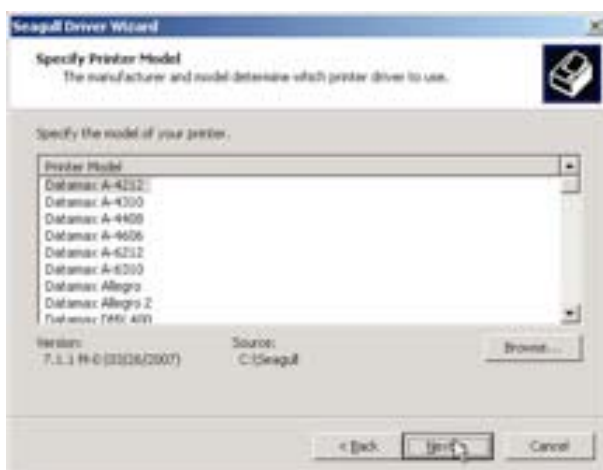


**Note:** Be sure your printer's USB Mode is set to "Printer." This mode can be viewed/changed via the printer's front panel menu under: **Communications > USB Port > USB Device Class**.

- 1 Place the Accessories CD included with your pinter into your computer's CD drive.



- 2 Once the CD starts, select your printer model and click Install Driver from the menu. Follow the instructions on the screen to install.
- 3 When prompted, select your printer from the list. Continue to follow the on-screen instructions to install the driver.



## Important Notes

The Windows driver functions the same as any other Windows printer. While built-in help files provide information on all settings, there are some important setting parameters that should be observed for trouble-free printing.

### Page Set Up Tab: Stock

It is important that the Stock setting matches the size of the label you are using. If you cannot find a match for your label, click New, and enter the dimensions for your label.



*Stock settings*

### Options Tab: Printer Speed and Printhead Temperature

These two settings will have the greatest effect on print quality. Some labels stocks will require more heat and slower print speeds to generate a quality image.



*Optional printing preferences*

- The Windows application software used to create the label format will likely have a Page Set Up screen. This will also need to match the size of the label that you are using.



# 5

## Printer Operation

Use this chapter to learn the functions on the front panel, how to calibrate the media, how the Media Position Sensor is set, and how to adjust the printhead position and pressure.



## Front Panel

The front panel consists of two indicator lights and one control button, as detailed in the following sections.



*Front panel button and LEDs*

- 1 Green/Orange/Red Status LED
- 2 Control Button

## LED Indicators

An LED indicator light provides a quick visual reference of printer operations and conditions, as defined below:

### ***LED Reference Table***

	LEDs		
Color	Green	Orange	Red
Solid	Ready to print	Paused or present sensor is blocked	TOF sensing error; next TOF not found
Flashing	Processing/busy	Paused/busy	Out of stock/labels, or printer jam
Off	No power	No power	No error

## Control Button

The control button performs different functions depending upon the mode of the printer.

### Using the Control Button

<b>Button Action</b>	<b>Ready</b> (LED – Green)	<b>Busy/Printing</b> (LED – Green Flashing)	<b>Paused</b> (LED – Orange)	<b>Faulted</b> (LED – Red)
Momentary Press	Feeds label	Pauses printer	Resumes printing	Clears fault
Press and hold for 5 seconds (release when LED blinks orange)	Prints network report	Cancels batch		
Press and hold for 10 seconds (release when LED blinks green)	Performs the quick media calibration			
Press and hold for 15 seconds (release when LED blinks red)	Resets the printer's parameters to the stored dealer settings. Resetting the printer will clear the RAM of downloaded images, fonts and label formats, and remove temporary printer configuration changes.			
Press and hold for 20 seconds (release when LED blinks orange)	Resets parameters to factory defaults			
Press and hold for 25 seconds	Resets the printer			

## Media Calibration

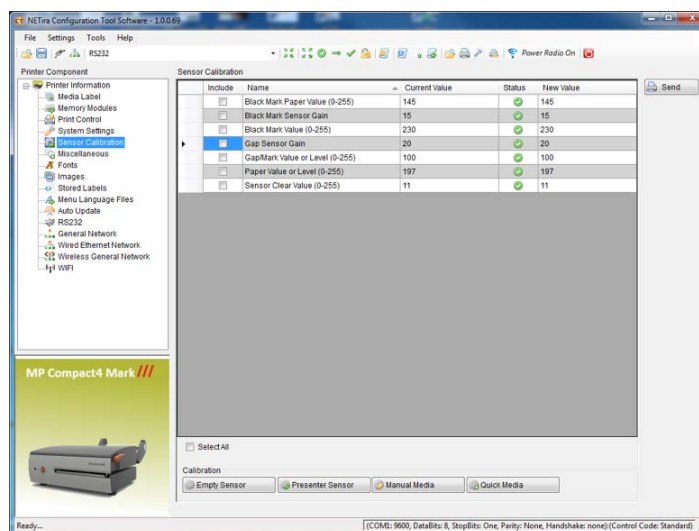
The printer is factory-calibrated for operation with most media types (both gap and black mark). Try your media without performing any calibration adjustments first; this will determine if the factory settings are compatible. Only perform the calibration adjustments if you are experiencing media-registration issues.

The Quick Media Calibration should be performed first, if it fails to detect your label media proceed to the **“Manual Media Calibration” on page 43** procedure.

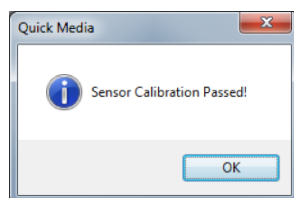
## Quick Calibration

The Quick Media Calibration can be performed using the NETira CT configuration utility, (see **“Printer Configuration Utility (NETira CT)” on page 31** for more information).

- 1 Launch the NETira CT configuration utility and query (connect) to the printer.
- 2 Click on the **Sensor Calibration** printer component.
- 3 Install your media in the printer and click the **Quick Media** button.



- 4 The printer will feed the media while the sensor is being calibrated. At the end of the process, a message will be shown, indicating a successful calibration. Values displayed in the “New Value” column may change after a calibration.



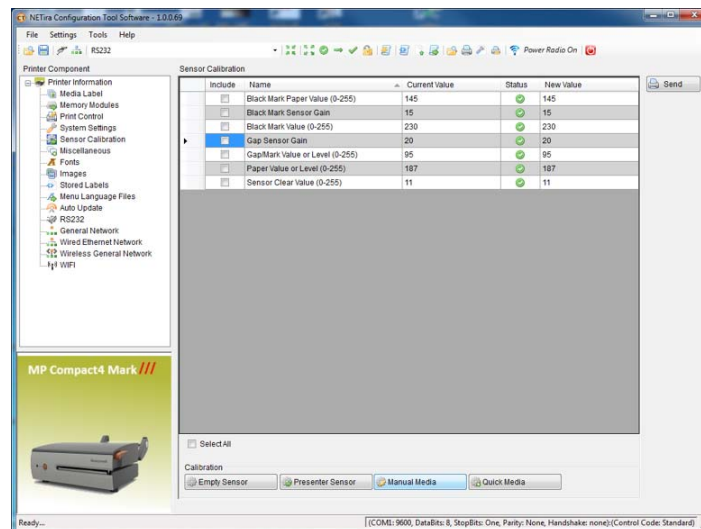
If the calibration is not successful, repeat the procedure. If the Quick Media calibration continues to fail, proceed to **“Manual Media Calibration” on page 43**.

## Manual Media Calibration

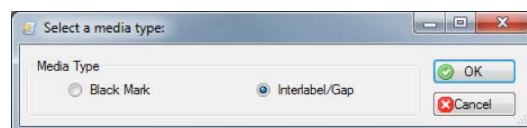
The Manual Media Calibration is intended for use when Quick Media Calibration printer has failed to detect the start of each label. This procedure performs a complete recalibration of the sensors and will optimize the printer to your media. In some instances you may need to perform a Quick Media Calibration after the Manual Media Calibration to further optimize the printer’s sensor.

Sensor calibration is needed to set either the black mark or the gap value of the media sensor on the printer. The Manual Media Calibration can be performed using the NETira CT configuration utility, proceed to **“Printer Configuration Utility (NETira CT)” on page 31**.

- 1 Launch the NETira CT configuration utility and query (connect) to the printer.
- 2 Click the **Manual Media** button to start the manual calibration process. Follow the on-screen instructions.



- 3 Select the **Interlabel/Gap** radio button, then click **OK**.



- 4 Load the Stock by placing the face of the media over the sensor. Lower the cover and click **OK**.



- 5 Load the Special Backing Media for Gap Media Type by peeling the labels off the backing and place back over the sensor. Lower the cover and click **OK**.



- 6 Remove the Stock by removing all media from the printer. Lower the cover and click **OK**.



- 7 NETira CT will display a message indicating the process has finished.



In case of any error, a FAILED CALIBRATION message will be displayed and you must repeat the process.

## Internal Labels

### Database Configuration Label and HEX-Dump Mode

The Database Configuration Label provides information including the printer firmware version, memory allocations, enabled options and label-counter data.

- 1 Load the media [10.16 cm (4 in.) wide] and ribbon (if printing with a thermal transfer media).
- 2 Turn the printer on.
- 3 When the LED is solid red, press and hold the control button until the LED turns solid green (up to 60 seconds) and then release. The Database Configuration Label will then print.

<b>Printer Information</b>	Disabled
Sun 08:15PM 11Mar2001	<b>Back After Print</b>
<b>Printer Key:</b> 4205-MP10-331983-627	<b>Mode:</b> Disabled
<b>Application version:</b> C4205 15.04 0069F 0007 Feb 24 2016	<b>Backup Delay (1/50s):</b> Disabled
<b>Build Part Number:</b> 83-3018-00A	<b>Font Emulation:</b> Standard Fonts
<b>Boot1 Version:</b> ver: 4.X2 0007	<b>Label Store:</b> State & Fields
<b>Boot1 PN:</b> 83-3016-00A	<b>Fault Handling</b>
<b>Boot2 Version:</b> ver: 4.X1 0007	<b>Level:</b> Standard
<b>Boot2 PN:</b> 83-3017-00A	<b>Void Distance:</b> 0.50 in.
<b>Plugin Modules:</b>	<b>Retry Count:</b>
<hr/>	
<b>Unlocked:</b> CG Times CG TRIUM	1 <b>Backfeed On Clear:</b> Disabled
<b>FPGA:</b> CX09	<b>Communications</b>
<b>Printer DPI:</b> 203	<b>Serial Port A</b>
<b>iPH:</b> 123 #146	<b>Baud Rate:</b> 9600 bps
<b>System Information</b>	<b>Data Bits:</b> 8
<b>Print Buffer Size:</b> 52	<b>Stop Bits:</b> 1
<b>Flash Size:</b> 64 MB	<b>Parity:</b> None
<b>Ram Test:</b>	<b>Protocol:</b> Both

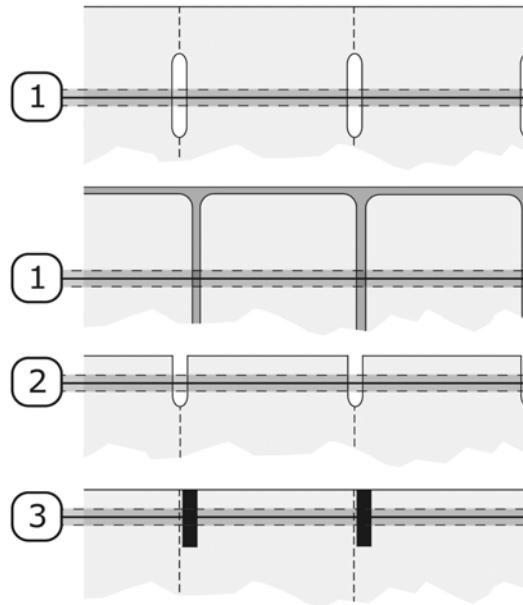


**Note:** Printed label may not match the label shown above.

- 4 After the printer finishes printing the Database Configuration Labels, the printer is in HEX-Dump Mode. Cycle printer power to exit the HEX-Dump Mode.

# Media Positioning Sensor Settings

The MP Nova Mark II printers are equipped with Media Positioning Sensors (MPS). The MPS detects the media and can be set to three (3) different modes, depending on how and where gaps and marks are positioned on the media:



## Media Positioning Sensor Specifications

Sensor Mode	Approximate Sensor Reading Point (from Edge of Media)	DPL
1 Outer (default)	16 mm (0.63 in.)	<STX>KcG0 ;
2 Inner	5 mm (0.2 in.)	<STX>KcG1 ;
3 Black mark	5 mm (0.2 in.)	

1 Outer sensor mode – detects label gaps about 16 mm (0.63 in.) from the edge of the media.



**Note:** This is the default setting.

2 Inner sensor mode – detects label gaps about 5 mm (0.2 in.) from the edge of the media.

3 Black-mark sensor – detects black marks on the reverse side of the media, about 5 mm (0.2 in.) from the edge of the media.

4 To change the settings, proceed to the NETira CT menu.



**Note:** Changes in the printer settings should be made by qualified personnel.

# Printhead Adjustments

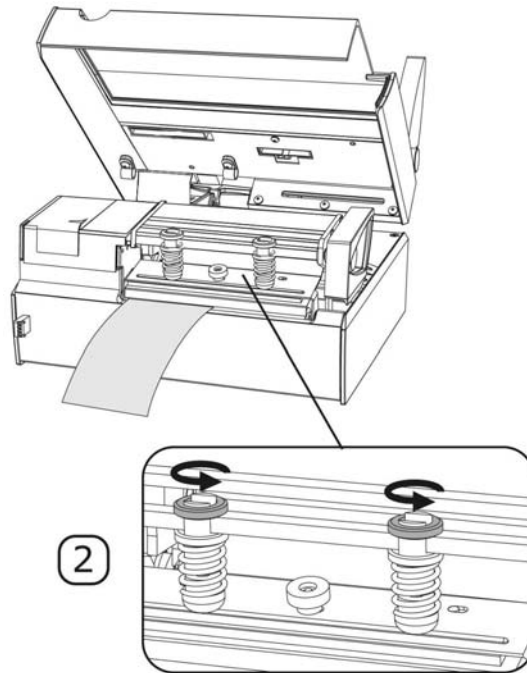
## Printhead Position Adjustment



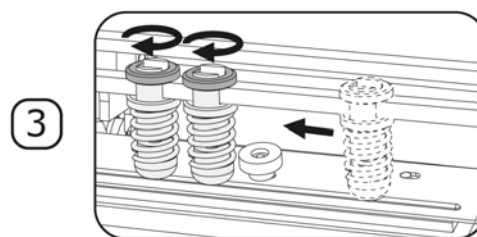
**Note:** These adjustments are only necessary when changing to media with a different thickness or width. The pictures shown describe an **MP Nova4 DT**. The process works the same for **all MP Nova Mark II printers**.

Changing the position of the adjustment screws may be necessary if the labels are very narrow.

- 1 Check that the printer is turned off. Open the cover and fold the handle.
- 2 Loosen the upper nut of the adjustment screw that is to be moved by turning it counter-clockwise.

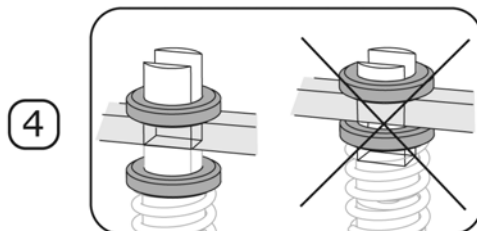


- 3 Slide the adjustment screw into a new position and tighten the upper nut. Pull the handle if sliding the adjustment screw past the finger nut.

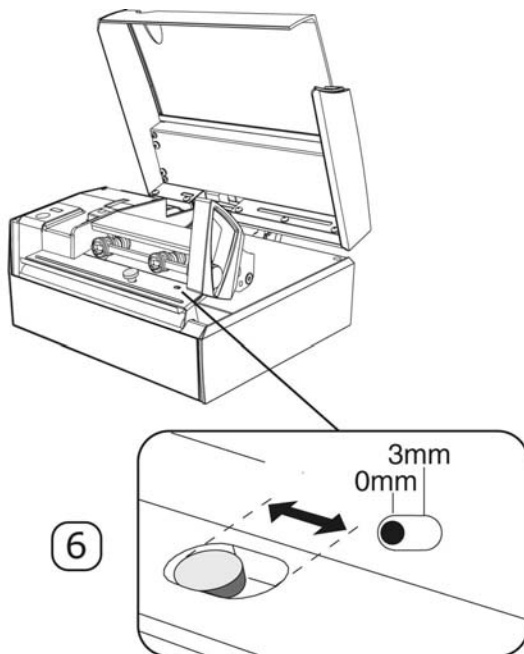




- 4 When tightening the upper nut, make sure it is pressing the sliding rail against the bottom of the notch and not against the lower nut.

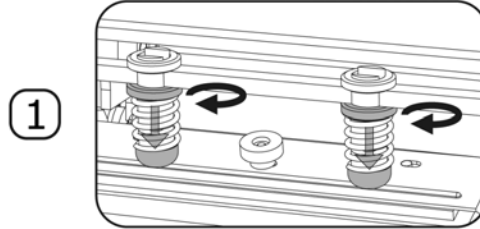


- 5 The adjustment screws should make the printhead press evenly onto the media. Make test prints to find the correct positions.
- 6 **For MP Nova4 DT only.** On the MP Nova4 DT, the position of the printhead itself can be changed. As default there is a 3 mm (0.12 in.) non-printable area on the left side. To be able to print all the way to the edge of the label the margin has to be set to 0 mm. Pull the handle. Loosen the finger nut and slide the printhead into position. Tighten the finger nut.

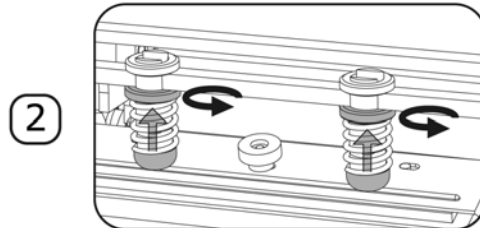


## Printhead Pressure Adjustment

- 1 To increase the pressure on the printhead, turn the lower nuts downwards (clockwise). This will tighten the spring.



- 2 To decrease the pressure on the printhead, turn the lower nuts upwards (counter-clockwise).





# 6

## Printer Maintenance

This chapter describes how to perform routine maintenance on your printer, including printer adjustments and replacements for the printhead and roller.

## Printhead and Roller Cleaning



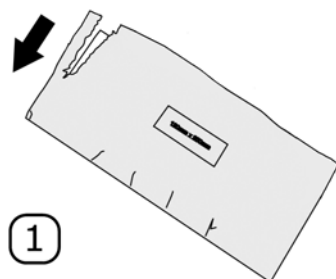
Only use cleaning cloths from Honeywell. These are specifically designed for cleaning Honeywell thermal printers. Proceed to [“Spare Parts” on page 73](#) for correct type.



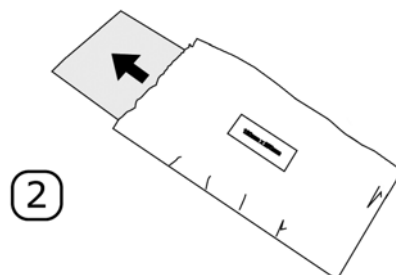
**Note:** Frequent cleaning prevents printhead and roller damage, and is especially important in demanding environments.

- Do not use liquids or aerosols when cleaning this printer.
- Never use sharp or pointed tools when cleaning or replacing the printhead.
- Don't use any sharp object to remove labels from the print roller.
- Remove all media before starting.

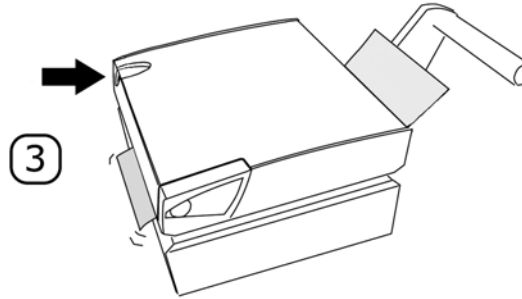
1 Tear the bag.



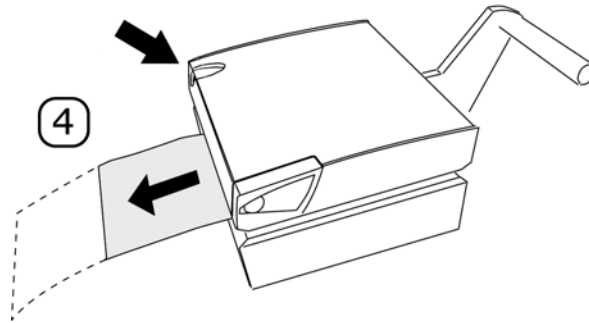
2 Pull out the cleaning cloth.



- 3 Pull the handle and feed the cloth into the printer in the same way as inserting the media (described in [“Insert Media” on page 18](#)). Fold the handle and press the print key.



- 4 Keep the print key pressed and let the cloth pass through the printer. (This cleans the *printhead*.)



**Note:** If the roller is clogged with labels it can easily be removed for cleaning, see [“Changeable Parts” on page 54](#).

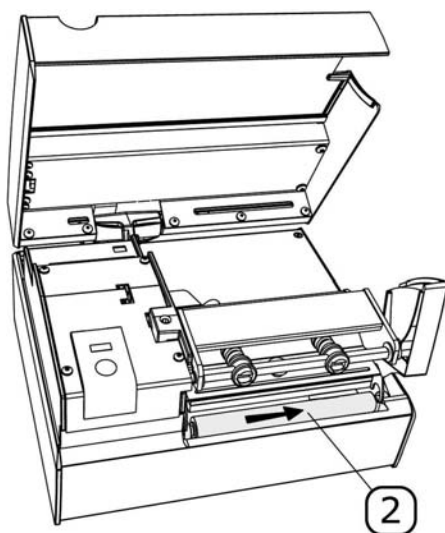
## Changeable Parts

### Roller Replacement

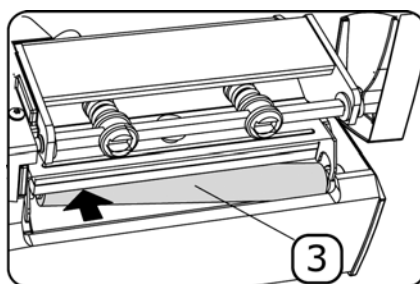


**Note:** The pictures shown describe an **MP Nova4 DT**. The process is the same for **all MP Nova Mark II printers**.

- 1 Check that the printer is turned off and open the cover (see [“Open and Close the Printer Cover”](#) on page 11).
- 2 Pull the roller and the roller bearing support to the right (use the rubber surface when pulling right).

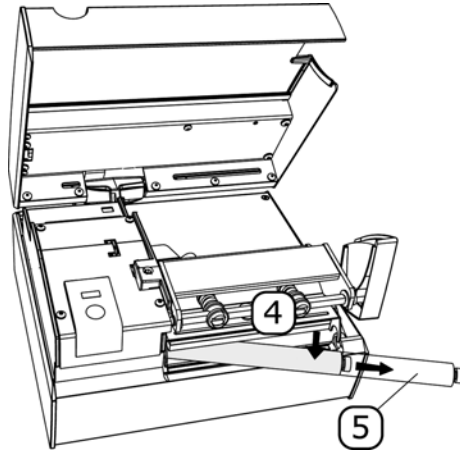


- 3 Lift the left-hand end of the roller toward the interior of the printer.

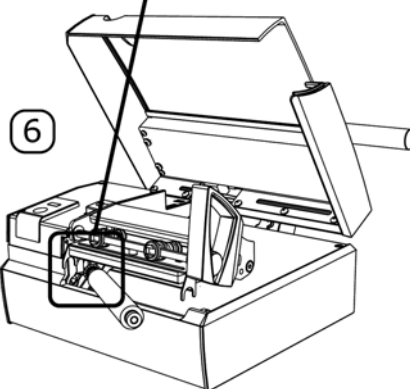
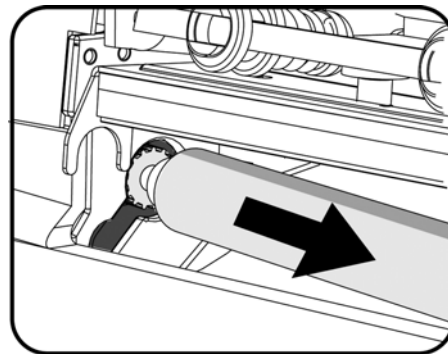


- 4 Lift out the right-hand end of the roller.

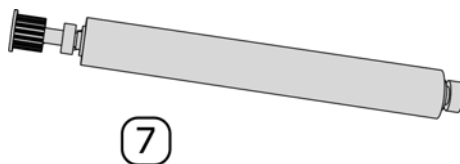
- 5 Remove the entire roller from the printer.



- 6 Pay careful attention to the drive belt when removing the left-hand end of the roller from the printer.

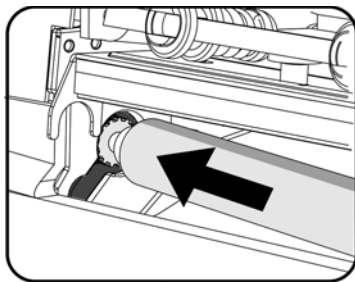


- 7 Unpack the new roller.

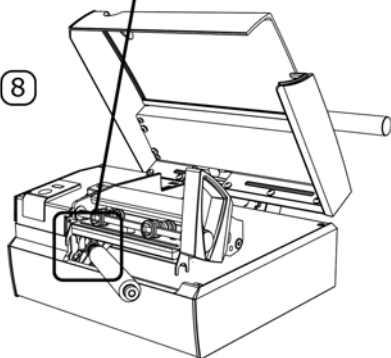




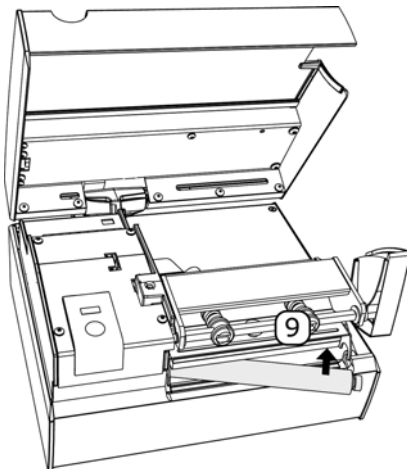
- 8 Insert the left-hand end of the roller (the end with the cog wheel). Check that it fits inside the drive belt.



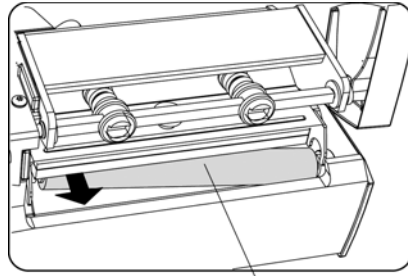
8



- 9 Insert the right-hand end of the roller into position.

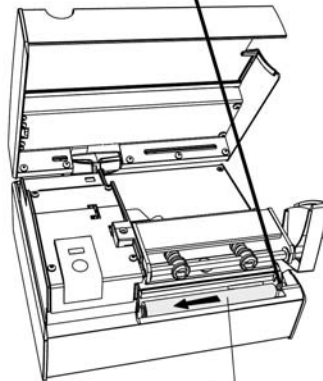
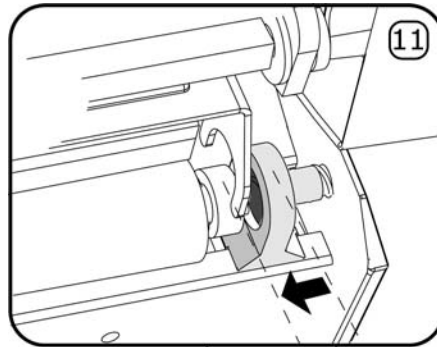


- 10 Push the left-hand end of the roller downward into the notch until the roller is parallel with the edge of the printer.



10

- 11 Push the roller slightly to the left.
- 12 Ensure that the left-hand end slots are in the groove.



12

- 13 Close the cover (see [“Open and Close the Printer Cover”](#) on page 11).
- 14 Turn on the printer.

## Printhead Replacement

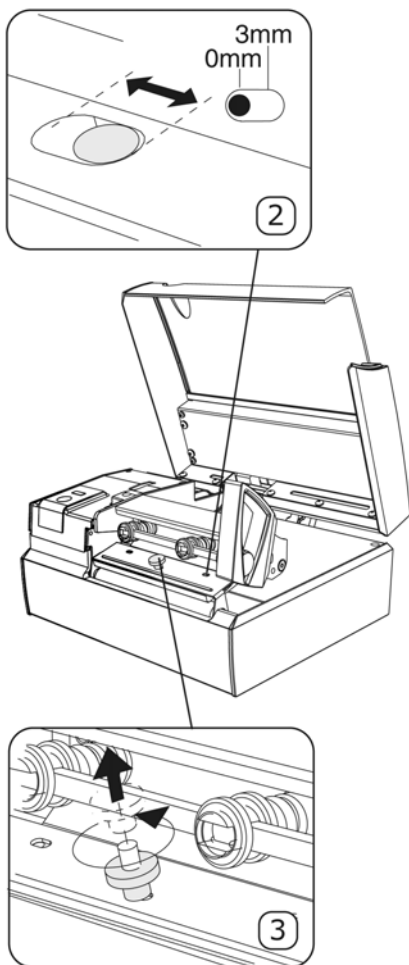


**Note:** The pictures shown describe an **MP Nova4 DT**. The process is the same for **all MP Nova printers**.

- 1 Make sure the printer is turned off and open the cover.
- 2 Check and remember the current lateral position of the printhead; 3 mm (0.12 in.) is the default position.



**Note:** Only adjustable on the MP Nova4 DT printer.

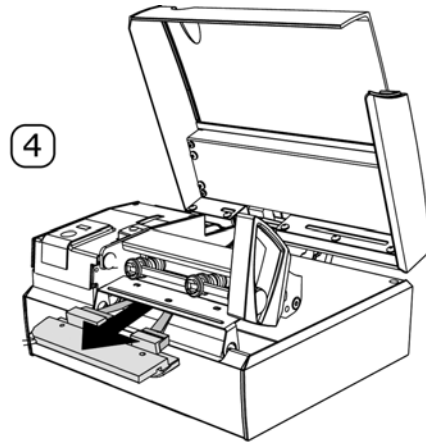


- 3 Carefully push the printhead downward until the finger nut becomes visible. Unscrew the finger nut.

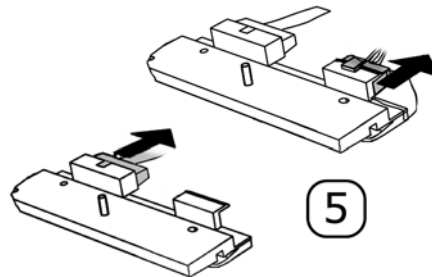


**Note:** Take care not to lose the finger nut.

4 Carefully remove the printhead.

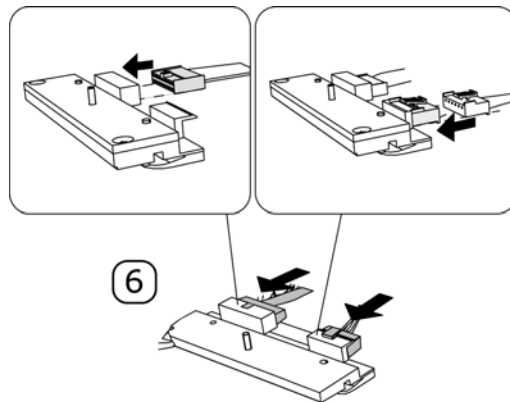


5 Carefully remove the cables from the back of the printhead.



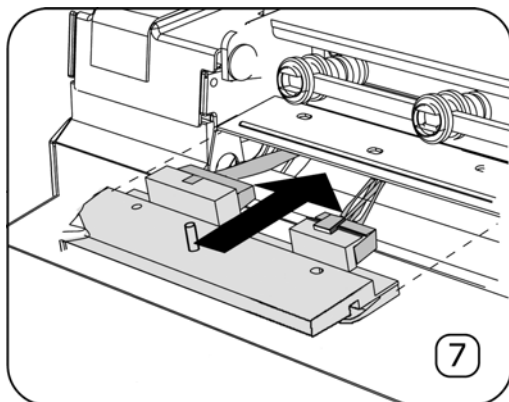
**Note:** There is a latch on top of the right cable. Push the latch before removing the cable.

6 Unpack the new printhead and attach the cables to the new printhead.



**Remember to handle the printhead with care!**

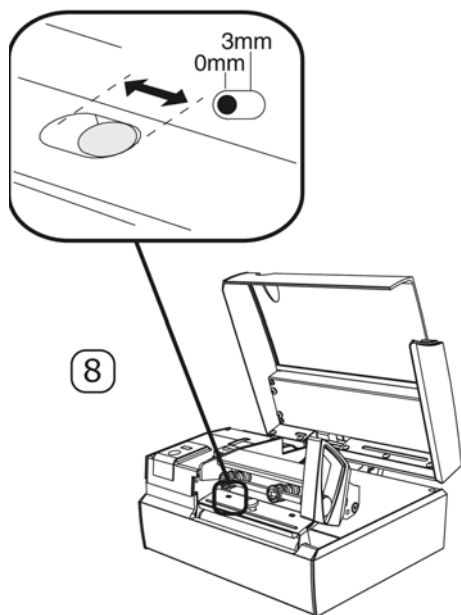
7 Carefully insert the printhead into position.



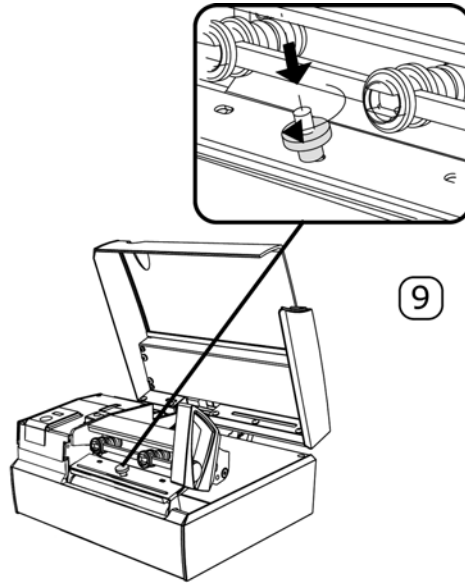
8 Check that the lateral position has not changed; 3 mm (0.12 in.) is the default position.



**Note:** Only adjustable on MP Nova4 DT.



9 Hold the printhead in place and tighten the finger nut.



10 Close the cover (see [“Open and Close the Printer Cover”](#) on page 11).

11 Turn on the printer.



# 7

## Troubleshoot Your Printer

Use this chapter to find answers to any problem situations you may encounter while using the printer. Contact a qualified technician for problems that persist or problems not covered in this chapter.



## Troubleshooting Tips

The following section lists the symptoms and the associated sections of the topics covered. While not every situation is addressed, you may find some tips helpful. After a corrective action is taken, press the FEED button to clear the alarm.

### Unacceptable print quality:

- Dirty printhead: Clean the printhead (see [“Printhead and Roller Cleaning” on page 52](#)).
- The temperature setting may be incorrect for the media being used: Use the software program or DPL commands adjust the Heat Setting and Print Speed
- A mismatched incorrect ribbon/media combination is being used: Check the types being used.
- Faulty printhead: Replace it (see [“Printhead and Roller Cleaning” on page 52](#)) or call for service.

### The printer does not print or prints several labels at once:

- The labels are incorrectly loaded: See the loading instructions on the inside cover of the printer.
- The media is not calibrated: Calibrate it (see [“Media Calibration” on page 42](#)).
- The media sensor or sensor circuitry may be defective: Call for service.

### The ribbon does not advance (the paper advances, but ribbon does not):

- The ribbon may be installed incorrectly: Ensure that the inked side of the ribbon faces the labels. With most ribbons this can be verified by rubbing paper against the ribbon; the ink should smudge the paper. Or, if using label stock, the sticky side of a label will pull off the ink.
- A mismatched ribbon/paper combination is resulting in an insufficient amount of friction between paper and ribbon: Ensure that the correct type of ribbon is being used with the media.

### Skipping every other label (print quality is good, but every other label is skipped):

- The label is formatted too close to the top edge of the label: Leave white space equal to 8-dot rows [about 0.5 mm (0.02 in.)] at the top of the label.
- The media is not calibrated: Calibrate it (see [“Media Calibration” on page 42](#)).
- The media sensor or media sensor circuitry may be defective: Call for service.

**Unable to print rotations:**

- The characters are formatted outside the dimensions of the label: Check that the row/column values provide enough room for the height of the image being printed.

**Light print on the right side of the label:**

- The printer's cover is not latched down: Latch it.
- The printhead is not properly aligned: Call for service.

**Printer fails to power ON:**

- The AC wall outlet may be faulty: Try another outlet.
- The power supply may be faulty: Call for service.
- Possible defective power switch: Call for service.

**Label advances 2.5-5.1 cm (1-2 in.) before a fault indication:**

- The ribbon may be incorrectly installed. Ensure that the inked side of the ribbon faces the labels. With most ribbons this can be verified by rubbing paper against the ribbon; the ink should smudge the paper. Or, if using label stock, the sticky side of a label will pull off the ink.
- A mismatched ribbon/paper combination is resulting in an insufficient amount of friction between paper and ribbon: Ensure that the correct type of ribbon is being used with the media.

**Label advances 30.5 cm (12 in.) before a fault indication:**

- The media may not be properly loaded: Reload it (see [“Insert Media” on page 18](#)). When loading media ensure that the media hangers and media guides are against the media and that gaps or marks in the labels are in line with the media sensor.
- The media sensor or media-sensor circuitry may be defective: Call for service.

**Labels move excessively from side to side during printing:**

- The media may not be properly loaded: Reload it (see [“Insert Media” on page 18](#)). When loading media ensure that the media hangers and media guides are against the media and that gaps or marks in the labels are in line with the media sensor.



# A

## Printer Specifications

## MP Nova4 DT & TT

### Technical Specifications: MP Nova4 DT & TT

Dimensions (H x W x L)	DT: 150 x 232 x 360 mm (6" x 9-1/8" x 14-1/8") TT: 210 x 250 x 360 mm (8-1/4" x 9-1/2" x 14-1/8")
Weight	DT: 5.8 kg (12 lbs), TT: 7.2 kg (15 lbs)
Power pack	100/240 VAC 50-60 Hz, 325 VA
Printer technology	Direct thermal and thermal transfer
Printing width	104 mm (4-1/8")
Printing speed	DT: 80 – 250 mm/second, TT: 80 – 250 mm/second
Printing resolution	203 dpi/300 dpi
Media specifications	Width: 40 mm – 115 mm (1-1/2" – 4-1/2") Length: 10 mm (3/8") – unlimited Thickness: 58 µm – 180 µm
Media types	Roll or fan-folded paper External diameter of roll: maximum 215 mm (8-1/2") Inner core of roll: minimum 37 mm (1-1/2") in diameter
Ink ribbon, TT	Maximum width of roll: 110 mm (4-1/3") Inner core diameter of roll: 25 mm (1") Maximum length: 300 m (328 yards) CSI/CSO maximum outer diameter of ribbon roll: 300 mm (11-4/5")
Connections	1 x RS-232 port (up to 115 kbps) USB port Ethernet port [TCP/IP (LPD)]
Typefaces	10 scalable typefaces 13 scalable, emulated typefaces Supports true type typefaces
Bar codes	Most common bar codes including two-dimensional. Examples: EAN128, Interleaved 2 of 5, Code 39 and PDF417
Graphics	Supports several file types
Settings program	Internal program using Web browser or NETira CT
Counters	Two internal counters
Memory	32 Mb standard RAM
Time and date	Internal clock, real-time
Printhead diagnostic	PHD (Printhead Diagnostic)

# MP Nova6 DT & TT

## Technical Specifications: MP Nova6 DT & TT

Dimensions (H x W x L)	DT: 150 x 292 x 360 mm (6" x 11-1/2" x 14-1/8") TT: 210 x 310 x 360 mm (8-1/4" x 11-7/8" x 14-1/8")
Weight	DT: 6.8 kg (15 lbs), TT: 8.2 kg (16.5 lbs)
Power pack	100/240 VAC 50-60 Hz, 325 VA
Printer technology	Direct thermal and thermal transfer
Printing width	168 mm (6-5/8")
Printing speed	DT: 80 – 200 mm/second, TT: 80 – 200 mm/second
Printing resolution	203 dpi
Media specifications	Width: 40 mm – 175 mm (1-1/2" – 6-7/8") Length: 10 mm (3/8") – unlimited Thickness: 58 µm – 180 µm
Media types	Roll or fan-folded paper External diameter of roll: maximum 215 mm (8-1/2") Inner core of roll: minimum 37 mm (1-1/2") in diameter
Ink ribbon, TT	Maximum width of roll: 174 mm (6-7/8") Inner core diameter of roll: 25 mm (1") Maximum length: 300 m (328 yards) CSI/CSO maximum outer diameter of ribbon roll: 300 mm (11-4/5")
Connections	1 x RS-232 port (up to 115 kbps) USB port Ethernet port [TCP/IP (LPD)]
Typefaces	10 scalable typefaces 13 scalable, emulated typefaces Supports true type typefaces
Bar codes	Most common bar codes including two-dimensional. Examples: EAN128, Interleaved 2 of 5, Code 39 and PDF417
Graphics	Supports several file types
Settings program	Internal program using Web browser or NETira CT
Counters	Two internal counters
Memory	32 Mb standard RAM
Time and date	Internal clock, real-time
Printhead diagnostic	PHD (Printhead Diagnostic)



# **B**

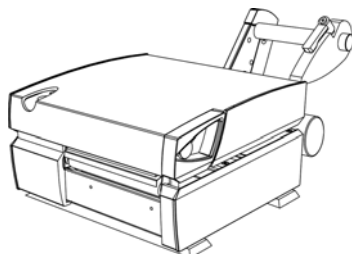
## **Kits, Parts & Consumables**



## Printer Options

The following printer kits are available for all MP Nova Mark II printer models.

### Peel-Off Kit

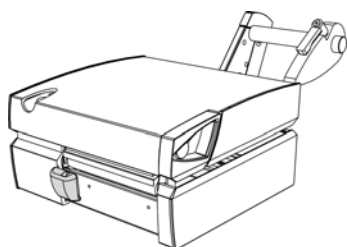


The peel-off device separates the labels from the backing paper, which is rolled up behind the printer.

Item number:

- 533541 Nova4
- 533542 Nova6

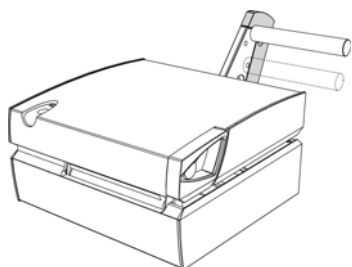
### LTS – Label-Taken Sensor



The Label-Taken Sensor (LTS) enables A new label is only printed once the previous label has been removed from the sensor. Printing is controlled by a photocell. It is often used in association with the Peel-Off Kit.

Item number: 533625-01

### 215-mm Kit

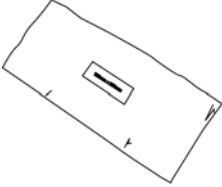
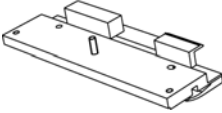



The 215-mm Kit makes it possible to use media rolls with diameters up to 215 mm (8.5 in.).

Item number: 533615

# Spare Parts

## Spare Parts List: MP Nova Mark II

Consumables	Part Number	Description
	① 501933	10 x Cleaning cloths (4")
	501934	50 x Cleaning cloths (4")
	501935	10 x Cleaning cloths (6")
	501936	50 x Cleaning cloths (6")
	533529	Printhead – 203 dpi – MP Nova4 DT
	533667	Printhead – 300 dpi – MP Nova4 DT
	533529	Printhead – 203 dpi – MP Nova4 TT
	533667	Printhead – 300 dpi – MP Nova4 TT
	533640	Printhead – 203 dpi – MP Nova6 DT
	533640	Printhead – 203 dpi – MP Nova6 TT
	③ 533530	Print roll – MP Nova4
	533636	Print roll – MP Nova6
	533616	MPS - Media Positioning Sensor
	532089	Media guide – Lockable
Cables	502542	Cable – Serial - (RJ-45)
	000554	Power cable - Europe
	001464	Power cable - UK
	001463	Power cable – USA & Canada
	502543	USB cable
Optional	533625-01	LTS Kit (Label-Taken Sensor)
	533541	Peel-Off Kit – Nova4
	533542	Peel-Off Kit – Nova6
	533615	215-mm Kit

# Consumables

## General Media

Self-adhesive labels are backed with silicon-coated backing paper, from which the label is removed. There are different types of adhesive:

- Tickets are printed on non-adhesive paper, which means there is no need for backing paper.
- Both labels and tickets are available as rolls or as fan-folded continuous paper tracks. Fan-folded labels and tickets are supplied in boxes, in which labels are stored before passing through the printer.
- Perforations are used to divide labels and tickets. This makes them easier to tear after printing.
- In order to start and stop the media during the print process, the printer is equipped with a detector that senses any gaps or black marks.

For more detailed information about media and consumables, we recommend you read Honeywell's *Consumables* document (currently only available in English).

### **MP Nova4 DT & Nova6 DT**

The MP Nova DT printers use direct-thermal media, such as labels, paper and tickets.

Direct-thermal media is made of special paper that reacts to heat and printouts are often black. Different paper qualities are available.

### **MP Nova4 TT, Nova6 TT**

The MP Nova TT uses a special ink ribbon, which transfers ink to media (receiver) when subjected to heat. Labels printed using the thermal-transfer method show a greater resistance to heat and UV-light.



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MP Nova Mark II User Guide



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