

# PF8d PF8t Desktop Printer



# **User's Guide**

Intermec Technologies Corporation

Worldwide Headquarters 6001 36th Ave.W. Everett, WA 98203 U.S.A.

www.intermec.com

The information contained herein is provided solely for the purpose of allowing customers to operate and service Intermec-manufactured equipment and is not to be released, reproduced, or used for any other purpose without written permission of Intermec Technologies Corporation.

Information and specifications contained in this document are subject to change without prior noticed and do not represent a commitment on the part of Intermec Technologies Corporation.

© 2007-2009 by Intermec Technologies Corporation. All rights reserved.

The word Intermec, the Intermec logo, Norand, ArciTech, Beverage Routebook, CrossBar, dcBrowser, Duratherm, EasyADC, EasyCoder, EasySet, Fingerprint, i-gistics, INCA (under license), Intellitag, Intellitag Gen2, JANUS, LabelShop, MobileLAN, Picolink, Ready-to-Work, RoutePower, Sabre, ScanPlus, ShopScan, Smart Mobile Computing, SmartSystems, TE 2000, Trakker Antares, and Vista Powered are either trademarks or registered trademarks of Intermec Technologies Corporation.

There are U.S. and foreign patents as well as U.S. and foreign patents pending.

Wi-Fi is a registered certification mark of the Wi-Fi Alliance.

Microsoft, Windows, and the Windows logo are registered trademarks of Microsoft Corporation in the United States and/or other countries.

Bluetooth is a trademark of Bluetooth SIG, Inc., U.S.A.

**Document Change Record** This page records changes to this document. The document was originally released as version 001.

Version	Date	Description of Change
005	11/2009	Added Ethernet port updates and upgrading firmware information.
004	3/2009	Corrected information regarding media specifications. Reformatted the manual to our new template.
003	06/2008	Corrected printing speeds for various printhead densities. Added procedure for adjusting Black Mark/Label Stop sensor. Minor format corrections.
002	08/2007	Removed listing of accessories. Revised information about installing and using a CompactFlash card. Minor format corrections.

	Before You Beginix
	Safety Information ix
	Global Services and Supportx
	Warranty Information
	Web Supportx
	Telephone Supportx
	Service Location Supportx
	Who Should Read This Manual
	Related Documents
	Patent Information
	Ising the DEC Drintone
1	Jsing the PF8 Printers
	Introducing the PF8 Printers
	What's New
	Features of the PF8 Printers
	Front Controls and Indicators
	Media Compartment
	Other Features and Connections
	Understanding the LED Indicators7
	Loading Media7
	Loading Tear-off Media
	Loading Self-Strip Media
	Loading Cut-Off Media
	Loading an Media from an External Supply
	Loading Thermal Transfer Ribbon (PF8t Only)
	Turning On the Printer
	0
	Performing a Testprint
	Creating and Printing Labels
7	Connecting the Printer
	Connecting the Printer to Your PC
	Connecting the Printer Through the USB Interface

	Connecting the Printer Through the Serial Port	
	Connecting the Printer Through the Parallel Port	
	Connecting the Printer to Your Network	40
	Configuring the Printer	
	Configuring the Printer Using the Printer's Home Page	
	Configuring the Printer Using PrintSet	43
	Configuring the Printer Using EasyLan Control Center Tool	
	Configuring the Printer Using ESim Commands	46
	Upgrading the Firmware	47
	Upgrading the Ethernet Firmware	48
<b>२</b> <sup>.</sup>	Troubleshooting and Maintaining the Printer	51
	Troubleshooting	52
	Installing the CompactFlash Card (PF8t Only)	53
	Cleaning the Printer	
	Cleaning the Case	
	Cleaning the Printhead	
	Adjusting the Printer	55
	Adjusting the Thermal Printhead Pressure (PF8t only)	
	Adjusting the Printhead Alignment.	
	Adjusting the Label Taken Sensor	
	Adjusting the Label Gap Sensor	
	Adjusting the Label Stop/Black Mark Sensor	58
Δ	Printer Specifications	61
	PF8d Printer Specifications	62
	PF8t Printer Specifications	63
	PF8 Interfaces	
	RS-232 Serial Interface	
	USB Interface	
	Parallel Interface	
	111ttillat 111ttilate	

Media Specifications	
Direct Thermal Media	
Thermal Transfer Media	
Labels	
Transfer Ribbons	
Accessories for the Printer	
<b>B</b> Default Settings	
Default Configuration Printer Default Settings	

# **Before You Begin**

This section provides you with safety information, technical support information, and sources for additional product information.

## **Safety Information**

Your safety is extremely important. Read and follow all warnings and cautions in this document before handling and operating Intermec equipment. You can be seriously injured, and equipment and data can be damaged if you do not follow the safety warnings and cautions.

This section explains how to identify and understand warnings, cautions, and notes that are in this document. You may also see icons that tell you when to follow ESD procedures.



A warning alerts you of an operating procedure, practice, condition, or statement that must be strictly observed to avoid death or serious injury to the persons working on the equipment.



A caution alerts you to an operating procedure, practice, condition, or statement that must be strictly observed to prevent equipment damage or destruction, or corruption or loss of data.



This icon appears at the beginning of any procedure in this manual that could cause you to touch components (such as printed circuit boards) that are susceptible to damage from electrostatic discharge (ESD). When you see this icon, you must follow standard ESD guidelines to avoid damaging the equipment you are servicing.



**Note:** Notes either provide extra information about a topic or contain special instructions for handling a particular condition or set of circumstances.

## **Global Services and Support**

### **Warranty Information**

To understand the warranty for your Intermec product, visit the Intermec web site at **www.intermec.com** and click **Support** > **Returns and Repairs** > **Warranty**.

Disclaimer of warranties: The sample code included in this document is presented for reference only. The code does not necessarily represent complete, tested programs. The code is provided "as is with all faults." All warranties are expressly disclaimed, including the implied warranties of merchantability and fitness for a particular purpose.

## Web Support

Visit the Intermec web site at **www.intermec.com** to download our current manuals (in PDF). To order printed versions of the Intermec manuals, contact your local Intermec representative or distributor.

Visit the Intermec technical knowledge base (Knowledge Central) at **www.intermec.com** and click **Support** > **Knowledge Central** to review technical information or to request technical support for your Intermec product.

## **Telephone Support**

In the U.S.A. and Canada, call 1-800-755-5505.

Outside the U.S.A. and Canada, contact your local Intermec representative. To search for your local representative, from the Intermec web site, click **About Us** > **Contact Us**.

## **Service Location Support**

For the most current listing of service locations, go to www.intermec.com and click Support >Returns and Repairs > Repair Locations.

For technical support in South Korea, use the after service locations listed below:

AWOO Systems 102-1304 SK Ventium 522 Dangjung-dong Gunpo-si, Gyeonggi-do Korea, South 435-776 Contact: Mr. Sinbum Kang Telephone: +82-31-436-1191 E-mail: mjyun@awoo.co.kr

### **IN Information System PTD LTD**

6th Floor Daegu Venture Center Bldg 95 Shinchun 3 Dong Donggu, Daegu City, Korea E-mail: **jmyou@idif.co.kr** or **korlim@gw.idif.co.kr** 

## Who Should Read This Manual

This user's guide is for the person who is responsible for installing, configuring, and maintaining the PF8d and PF8t printers. This user's guide provides you with information about the features of the PF8d and PF8t printers, and how to install, configure, operate, maintain, and troubleshoot them.

### **Related Documents**

This table contains a list of related Intermec documents.

### Document Title

*ESim for the PC4, PF8, PD41, and PD42 Printer Programmer's Reference Manual* 

The Intermec web site at **www.intermec.com** contains our documents (as PDF files) that you can download for free.

### To download documents

- 1 Visit the Intermec web site at **www.intermec.com**.
- 2 Click Support > Manuals.
- **3** Use the **Product Category** field, the **Product Family** field, and the **Product** field to help you locate the product whose documentation you want to download.

## **Patent Information**

Product is covered by one or more of the following patents: 5,581,293; 5,613,790; 5,927,876; 6,088,049; 6,345,920 There may be other U.S. and foreign patents pending.

# **1** Using the PF8 Printers

Use this chapter to familiarize yourself with the PF8 printers. In this chapter you will find these sections:

- Introducing the PF8 Printers
- Features of the PF8 Printers
- Understanding the LED Indicators
- Loading Media
- Loading Thermal Transfer Ribbon (PF8t Only)
- Turning On the Printer
- Performing a Testprint
- Creating and Printing Labels

# **Introducing the PF8 Printers**

The PF8 desktop printers are lightweight, reliable, and easy-to-use. Both printers are designed to print a low volume of labels, less than 1000 labels, per day. There are two models of the PF8 printer:

- The PF8d is a 203 dpi direct thermal printer.
- The PF8t is a direct thermal or thermal transfer printer that is available in 203 and 300 dpi models.

Both PF8 printers come with parallel, serial RS-232, and USB ports. You can install a cutter or label stripper module accessory on both models of the PF8. You can also install a CompactFlash card adapter on the PF8t.

The discharge of electrostatic energy accumulated on the human body, clothing, or other surfaces can damage or destroy the printhead or electronic components used in these printers. Follow ESD Avoid touching the electrical connectors while unpacking or Procedures setting up your printer.



**Note:** Unless otherwise noted, this manual uses the term PF8 to refer to both the PF8d and PF8t printers.

## What's New

The PF8 printers support these new features:

- A new Ethernet port. For more information, see **"Connecting the Printer to Your Network" on page 40**.
- Printer configuration using either PrintSet. For more information see **"Configuring the Printer" on page 41**.

## **Features of the PF8 Printers**

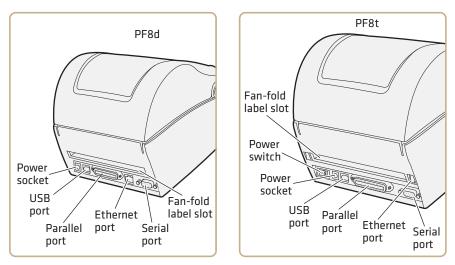
This section describes the front controls and indicators, components of the media compartment, and connections located on the back of the PF8 printers.



**Note:** Unless otherwise noted, the graphics in this document refer to both the PF8t and PF8d.

## **Front Controls and Indicators**

The PF8 printers are controlled by a **Power** switch, a **Feed** button, and a multi-color status LED.



PF8d and PF8t Front Controls and Indicators

The **Power** switch is located on the side of the PF8d and on the back of the PF8t. Use the table below to understand **Feed** button.

### Understanding the Feed Button

Action	Results
Tapping the feed button	A quick press-and-release causes the media to advance a short distance out of the printer.

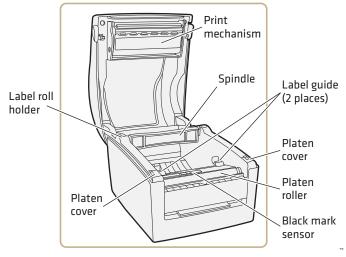
Action	Results
Holding the <b>Feed</b> button down	Holding the button down when the power is turned on causes the printer to enter Media Sensing mode. The printer configuration page prints when you release the button.

### Understanding the Feed Button (continued)

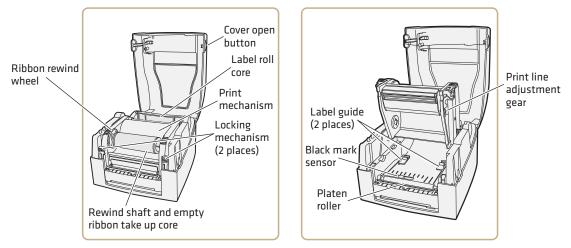
There are also cover open buttons located on each side of the printer which you press to access the media compartment.

### Media Compartment

The PF8t is a thermal transfer or direct thermal capable printer. The media compartment accommodates the media supply and the transfer ribbon supply. In direct thermal printers like the PF8d, the top cover and the print mechanism are combined into a single unit.



PF8d Media Compartment



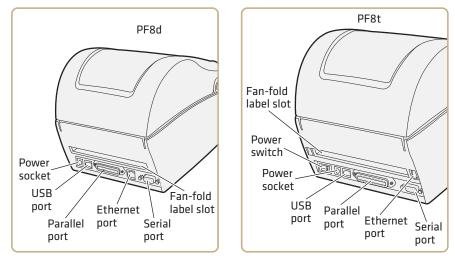
PF8t Media Compartment

## **Other Features and Connections**

The rear and underside of the printers contain USB, serial, and parallel connections and additional features. The Ethernet port is optional and is only available on specific models of the PF8d and PF8t.

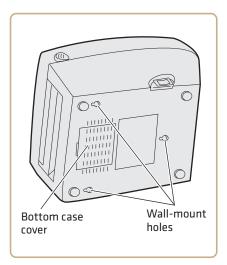


**Note:** On PF8d printers with an Ethernet port, the parallel port is not available.



PF8d and PF8t Rear View Connections and Controls

The bottom of the PF8d also has hanger holes that allow you to wallmount the printer.



**PF8d Wall-Mount Holes** 

## **Understanding the LED Indicators**

When power to the printer is switched on, the status LED turns green, indicating that the printer is ready to accept print commands.

If the printer runs out of media or ribbon during printing, the LED turns red.

Other status indicators are shown in the table below. For more information on the various printer modes, see the *ESim for the PC4*, *PF8*, *PD41*, *and PD42 Printer Programmer's Reference Manual*.

LED	Meaning
Green (blinking)	Auto-Sensing mode
Green (blinking)	Downloading font, form, or graphic
Green (solid)	Dump mode
Green (solid)	Ready mode
Green (solid)	Print mode
Orange (solid)	Boot mode
Red (blinking)	Media jam, overheated printhead or stepper motor
Red (blinking)	Downloading firmware
Red (solid)	Error mode

### **LED Status Indicators**

## **Loading Media**

Both models of the PF8 printers can print on direct thermal media. The PF8t can also print on thermal transfer media such as selfadhesive labels, non-adhesive tags, or continuous stock. Printing on thermal transfer media also requires a thermal transfer ribbon.

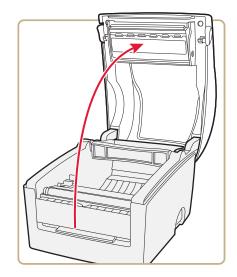
There are three ways to handle media on the PF8 printers:

- Tear-off (straight-through) media is fed out the front of the printers and is torn off by pulling it upwards against the edge of the top cover.
- Self-strip media requires an optional self-strip module that installs on the front of the PF8.

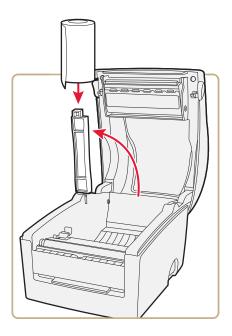
• Cut-off media requires an optional paper cutter fitted on the front of the printer. The cutter is not designed to cut through adhesive; adhesive sticks to the cutting shears and prevents the cutter from operating. Self-strip media are self-adhesive labels that are automatically separated from the label backing after printing. Self-strip media cannot be used with the cutter option.

## Loading Tear-off Media

**1** Press the cover open buttons on both sides of the case to open the top cover. Lift the cover upwards and backwards.



**2** Pull or lift the spindle and insert a fresh media roll onto the spindle. If you are replacing a roll of media, remove the empty label roll core and insert the new media roll onto the spindle.

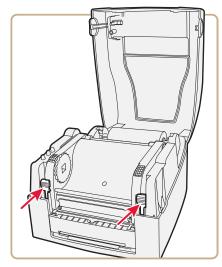




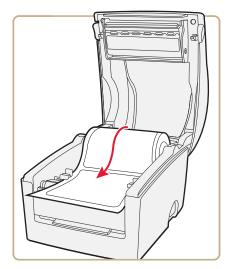
**Note:** The PF8d spindle lifts up, but remains attached to the printer while the PF8t spindle lifts completely out of the spindle compartment.

**3** Clamp the spindle in place.

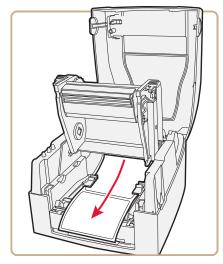
**4** If you have a PF8t, press the locking mechanism and open the print mechanism and ribbon container to load media and access the media adjustment tabs.



**5** Put the label between the label guides and pull it forward.

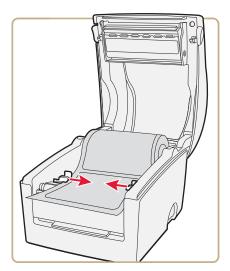


Pulling the Label Forward on the PF8d

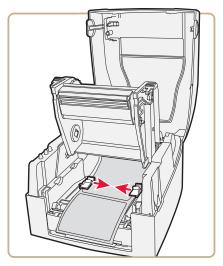


Pulling the Label Forward on the PF8t

**6** Adjust the label guides to fit the media you are using.



Adjusting the Label Guides on the PF8d



Adjusting the Label Guides on the PF8t

7 On the PF8d, close the top cover. On the PF8t continue to "Loading Thermal Transfer Ribbon (PF8t Only)" on page 26.



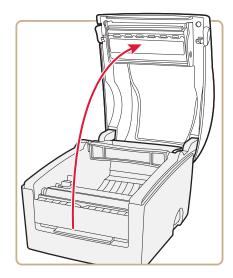
**Note:** If you are loading media for the first time or changing from another type or size of media, see **"Adjusting the Label Gap Sensor"** on page 58.

## **Loading Self-Strip Media**

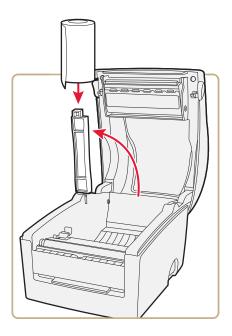
The PF8 Stripper Module allows you to peel individual labels automatically. To use self-strip media, you must purchase the Stripper Module separately. For more information on the Stripper Module, see **"Accessories for the Printer" on page 73**.

### To load self-strip media

1 Press the cover open buttons on both sides of the case to open the top cover. Lift the cover upwards and backwards.



**2** Pull or lift the spindle and insert a fresh media roll onto the spindle. If you are replacing a roll of media, remove the empty label roll core and insert the new media roll onto the spindle.

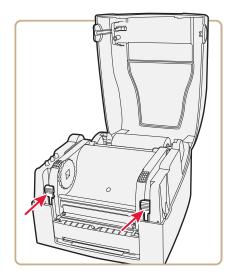


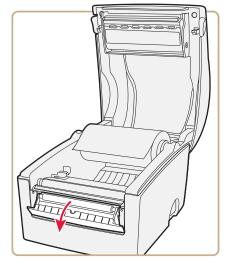


**Note:** The PF8d spindle lifts up, but remains attached to the printer while the PF8t spindle lifts completely out of the spindle compartment.

**3** Clamp the spindle in place.

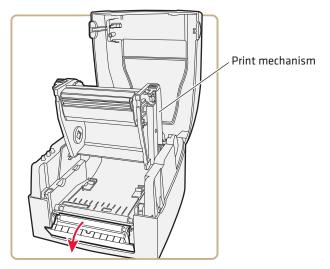
**4** If you have a PF8t, press the locking mechanism and open the print mechanism and ribbon container to load media and access the media adjustment tabs.





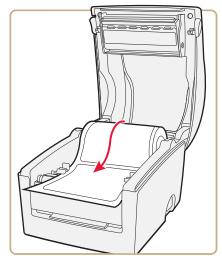
**5** Open the self-strip mechanism on the front of the printer.

Opening the Self-Strip Mechanism on the PF8d

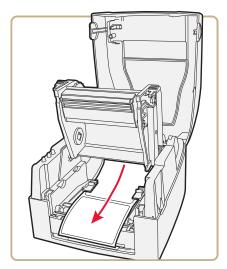


Opening the Self-Strip Mechanism on the PF8t

**6** Put the label between the label guides and pull it forward.

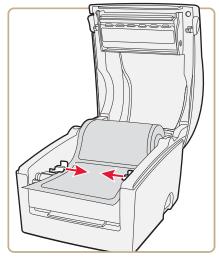


Pulling the Label Forward on the PF8d

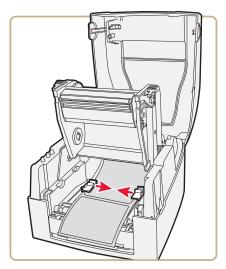


Pulling the Label Forward on the PF8t

**7** Adjust the label guides to fit the media you are using.



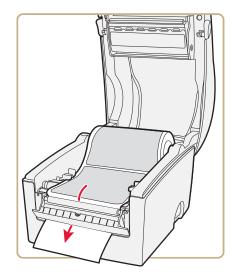
Adjusting the Label Guides on the PF8d



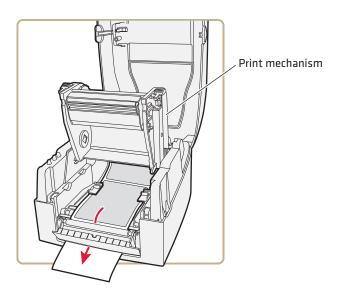
Adjusting the Label Guides on the PF8t

**8** Peel away the label from the first 10 cm (4 in) of the liner.

**9** Thread the liner around the peel-off bar and insert the liner inside the peel-off mechanism so that it protrudes from the slot below the mechanism.



Threading the Liner Inside the Peel-off Mechanism for PF8d



Threading the Liner Inside the Peel-off Mechanism for PF8t

- **10** Hold the labels and pull on the liner until it becomes tight.
- **11** Close the self-strip mechanism.
- 12 On the PF8d, close the top cover. On the PF8t continue to"Loading Thermal Transfer Ribbon (PF8t Only)" on page 26.



**Note:** If you are loading media for the first time or changing from another type or size of media, see "Adjusting the Label Gap Sensor" on page 58.

## Loading Cut-Off Media

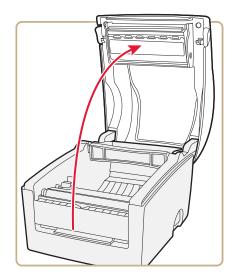
The PF8 Cutter allows you to cut non-perforated labels. You must purchase the PF8 cutter separately. For more information on the Cutter, see **"Accessories for the Printer" on page 73**.



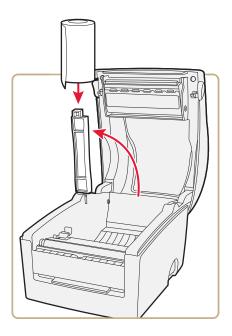
The cutter (optional accessory) cannot be used to cut through labels, only through the liner between the labels. Cutting through the labels will cause the adhesive to stick to cutting parts and prevent the cutter from working properly. Media rolls must be wound with the printable side facing upward to prevent jamming the cutter.

### To load cut-off media

1 Press the cover open buttons on both sides of the case to open the top cover. Lift the cover upwards and backwards.



**2** Pull or lift the spindle and insert a fresh media roll onto the spindle. If you are replacing a roll of media, remove the empty label roll core and insert the new media roll onto the spindle.

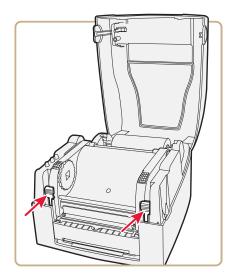




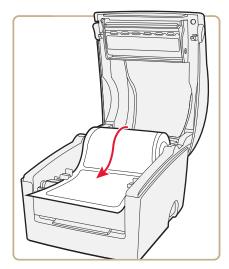
**Note:** The PF8d spindle lifts up, but remains attached to the printer while the PF8t spindle lifts completely out of the spindle compartment.

**3** Clamp the spindle in place.

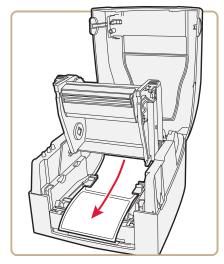
**4** If you have a PF8t, press the locking mechanism and open the print mechanism and ribbon container to load media and access the media adjustment tabs.



**5** Put the label between the label guides and pull it forward.

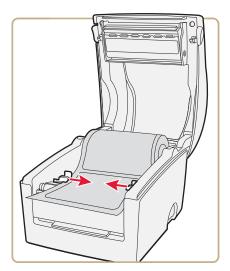


Pulling the Label Forward on the PF8d

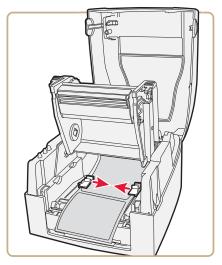


Pulling the Label Forward on the PF8t

**6** Adjust the label guides to fit the media you are using.

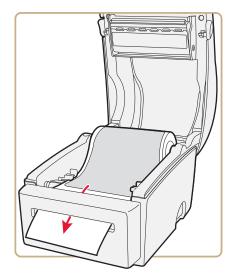


Adjusting the Label Guides on the PF8d

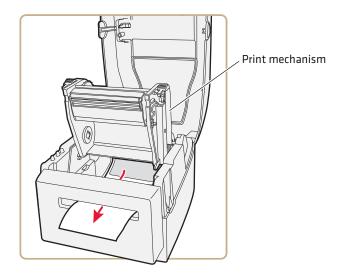


Adjusting the Label Guides on the PF8t

7 Route the media through the slot in the optional cutter mechanism just in front of the tear bar.



Routing the Liner Inside the Cut-off Mechanism for the PF8d



Routing the Liner Inside the Cut-off Mechanism for the PF8t

8 On the PF8d, close the top cover. On the PF8t continue to "Loading Thermal Transfer Ribbon (PF8t Only)" on page 26.



**Note:** If you are loading media for the first time or changing from another type or size of media, see **"Adjusting the Label Gap Sensor"** on page 58.

### Loading an Media from an External Supply

Insert the media through the slot in the back of the printer. Follow the instructions for the type of media you are using. The spindle is not used when using an external media supply.



**Note:** Be careful to protect an external media supply from dirt, grit, dust, water, and direct sunlight.

# Loading Thermal Transfer Ribbon (PF8t Only)

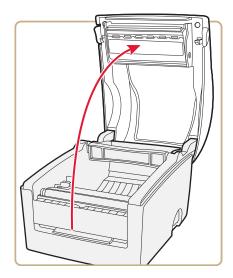
Thermal transfer ribbons are required when you print on thermal transfer (non-heat-sensitive) media. The type of transfer ribbon you use should match the face materials of the media to obtain the best durability and print quality.



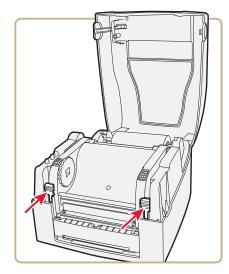
**Note:** The PF8t can use only ribbons that are "wind direction out", meaning the ribbon is loaded with the inked side (dull side) facing out. Using thermal transfer ribbons that are "wind direction in", meaning the inked side is on the inside, cannot be loaded properly into the PF8t and may result in damage to the rewind motor.

### To load a thermal transfer ribbon roll

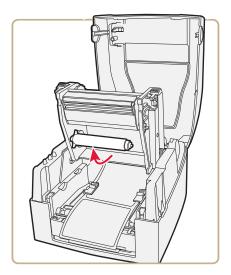
1 Press the cover open buttons on both sides of the case to open the top cover. Lift the cover upwards and backwards.

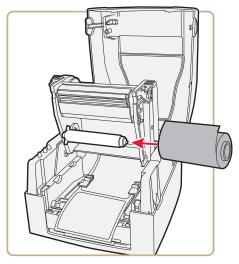


**2** If you have a PF8t, press the locking mechanism and open the print mechanism and ribbon container to load media and access the media adjustment tabs.



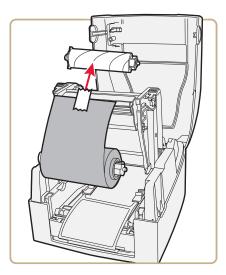
**3** Insert the empty ribbon take up core onto the ribbon rewind wheel. Make sure that the cardboard spindle is attached to the core.

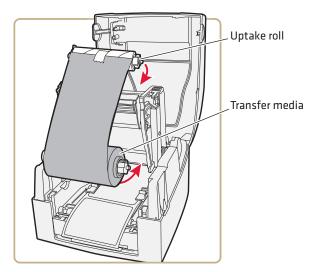




**4** Insert a new transfer ribbon roll onto the ribbon supply shaft.

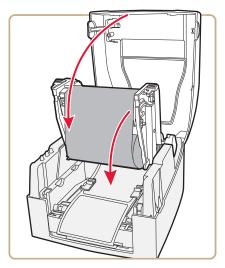
**5** Take the leader end of the transfer ribbon and attach the leader to the top of the rewind core using tape. Be careful to center align the ribbon leader with the core.





**6** Place the uptake roll and transfer media into their respective slots.

7 Close the print carriage by pressing firmly down on both sides. A loud click indicates the print carriage locked into place.



- **8** Firmly close the printer's top cover.
- **9** Tap the **Feed** button until the status LED turns green.

#### Chapter 1 – Using the PF8 Printers

When you switch between direct thermal and thermal transfer printing, or when you switch between different types of transfer ribbon, you can remove a partially used transfer ribbon and save it for later use.

#### To remove a partially used ribbon

- **1** Press the cover open buttons on both sides of the case to open the top cover. Lift the cover upwards and backwards.
- **2** Press the green release tabs at the bottom of the top cover on both sides of the printhead and lift the print carriage halfway up while keeping the top cover fully opened.
- **3** Using a pair of scissors, cut the transfer ribbon just below the rewind roll.
- **4** Rewind the unused ribbon onto the supply spool. Remove the roll by pushing it to the left until the right end disengages then lift the roll up. Fasten the loose end with a piece of tape or label to prevent the roll from unwrapping.
- **5** Remove the rewind roll by pushing it to the left until the right end disengages, then lift out. Dispose of the used ribbon.



**Note:** Keep the ribbon core. You will need it the next time you load ribbon.

# **Turning On the Printer**



There is a danger of personal injury if the printer and power supply are operated in an environment where they can get wet. Use only Intermec power supply adapter P/N 1-092363-xx.

#### To turn on the printer

- 1 Place the printer on a stable surface.
- **2** Place the power supply adapter in a suitable location between the printer and an electrical outlet. The power supply adapter can be used for 100 to 240 VAC, 50 to 60 Hz.
- **3** Make sure the printer is off.

- **4** Insert the round connector on the power cord into the power receptacle in the back of the printer.
- **5** Insert the power cord plug into an AC socket.
- **6** Turn the printer on.
- **7** The status LED will change from red to green indicating that the power is turned on.

## Performing a Testprint

Use the following procedure to perform a testprint.

- Load media in the printer. For help, see the next section, Loading Media.
- **2** Press and hold the **Feed** button while turning the printer on. The status LED blinks green for 2 seconds, blinks red for 2 seconds, and then blinks green again.
- **3** If using continuous stock or gap media, release the **Feed** button when the LED is blinking green.

If using black marked media, release the **Feed** button when the LED is blinking red.

**4** The printer automatically adjusts the label gap sensor and media feed according to the characteristics of the media. The printer may feed three to four labels before the adjustment is completed. If you are using self-strip media, remove the labels as they are fed out.

After a short delay, a test label will print and the printer will enter Dump mode. See the *ESim for the PC4, PF8, PD41, and PD42 Printer Programmer's Reference Manual* for additional information about Dump mode.

5 Press the Feed button once to return to normal operation, or press and hold the Feed button for at least 3 seconds after the test label prints to reset the printer to the default settings. The status LED turns red to indicate that the printer was reset to the default settings and then turns green.

Refer to the *ESim for the PC4, PF8, PD41, and PD42 Printer Programmer's Reference Manual* for an illustration and explanation of the test label.

# **Creating and Printing Labels**

The easiest way to create and print labels, is to use the label design software LabelShop®. You can download LabelShop from the PrinterCompanion CD that shipped with your printer or you can download it from the Downloads page for your printer on www.intermec.com.

You can also use ESim to create and print labels. For more information, see the *ESim for the PC4*, *PF8*, *PD41*, *and PD42 Printer Programmer's Reference Manual*.

### To download and install LabelShop (serial or parallel connection)

- 1 Use the Windows Control Panel Add/Remove Programs feature to uninstall all previous versions of LabelShop and service packs for LabelShop from the computer.
- 2 Connect the printer to the computer using a serial or parallel connection. For help, see "Connecting the Printer to Your PC" on page 36.
- **3** Download LabelShop from the **www.intermec.com** or insert the PrinterCompanion CD. If you download LabelShop, you will need to unzip the files.
- **4** Follow the installation prompts to install LabelShop in the default directory.
- 5 Download Service Pack 5 for LabelShop from the www.intermec.com and unzip the files.
- **6** Follow the installation prompts to install Service Pack 5 in the same directory where LabelShop is installed.

#### To download and install LabelShop (USB connection)

- 1 Use the Windows Control Panel Add/Remove Programs feature to uninstall all previous versions of LabelShop and service packs for LabelShop from the computer.
- **2** Connect the printer to the computer using a USB connection. For help, see **"Connecting the Printer to Your PC" on page 36**.
- **3** Install Windows InterDriver version 7.1.4 or later. These drivers are available on the PrinterCompanion CD or they can be downloaded from the **www.intermec.com**.

- **4** OpenLabelShop from the PrinterCompanion CD, or download it from **www.intermec.com**. If you download LabelShop, you will need to unzip the files.
- **5** Follow the installation prompts to install LabelShop in the default directory.
- **6** Download Service Pack 5 for LabelShop from **www.intermec.com** and unzip the files.
- **7** Follow the installation prompts to install Service Pack 5 in the same directory where LabelShop is installed.

### Chapter 1 – Using the PF8 Printers

# **2** Connecting the Printer

Use this chapter to connect the printer to your PC or your network. In this chapter you will find these sections:

- Connecting the Printer to Your PC
- Connecting the Printer to Your Network
- Configuring the Printer
- Upgrading the Firmware
- Upgrading the Ethernet Firmware

# **Connecting the Printer to Your PC**

Depending on the model of PF8 printer you have, you can connect PF8t or PF8d printer to your PC using a USB cable, parallel cable, or serial cable. If you are connecting using a serial cable, you may send commands to your printer using a terminal program like HyperTerminal.



**Note:** On PF8d printers with an Ethernet port, the parallel port is not available.

### **Connecting the Printer Through the USB Interface**

To connect the printer to a PC through the USB device port, you need to install Intermec InterDriver® software and then connect the USB cable to your PC.

The USB cable you need is included in the shipping box with the printer. The InterDriver printer driver is available on the PrinterCompanion CD that ships with the printer. To make sure you have the latest version of InterDriver, you may want to go to the downloads page for the printer on **www.intermec.com**.

### To connect the printer through a USB port

- **1** Open the Interdriver executable.
- **2** The File Download Security Warning screen appears. Click **Run** to run the executable.
- **3** The Intermec End User License Agreement appears. Read the agreement and select the radio button to accept the agreement, and then click Next.
- 4 The Installation Directory screen appears. The default installation directory is c:\Intermec\InterDriver7. Click Next to use the default directory or specify a different location to install the files.
- 5 The Installation Information screen appears. Clear the Run Add Print Wizard after unpacking drivers check box and click Finish.

6 On the New Hardware Wizard screen, select Install from a list or specific location and then click Next to continue.



**Note:** For LPT connections, you must restart your computer for Windows to detect the new hardware. For USB connections, the New Hardware Wizard will launch automatically when the printer is connected and turned on.

- 7 On the Search and Installation Options screen, click Next.
- **8** On the Hardware Installation warning screen, click **Continue Anyway**.
- **9** Click **Finish** to exit the New Hardware Wizard. InterDriver files are now installed on your computer.
- **10** Connect the USB cable to the connector on the back of the printer and connect the other end to your PC. You do not need to set up any parameters for USB communications.

### **Connecting the Printer Through the Serial Port**

The serial cable you need is included in the shipping box with the printer. The serial communication parameters control the communication between the printer and the PC connected on the serial port, referred to as "uart1:" on the printer.

Make sure the serial port settings on the printer match the settings on the connected device. The default serial communication settings on the printer are: 9600 baud rate, 8 data bits, no parity, 1 stop bit and no flow control.

You can use a serial connection to communicate with your PC and run PrintSet, LabelShop, or InterDriver. You can also use the serial port to send commands directly to the printer through a terminal connection, for instance with HyperTerminal

#### To connect the printer to a PC through the serial port

- 1 Connect the serial cable to the connector on the back of the printer and connect the other end to your PC.
- If necessary, change the PC serial port configuration to match the printer. On the desktop PC, start the HyperTerminal application and click Start > All programs > Accessories > Communications > HyperTerminal.

- **3** Do one of the following:
  - If it your first time connecting to the printer select a name and for your connection and click **OK**.
  - If you have saved a previous HyperTerminal connection, click
     File > Open to open an existing connection.
- 4 On the Connect To dialog box, select COM1 from the Connect Using drop-down list.
- **5** On the **Port Settings** tab, configure the port settings so they match those of your printer.

Bits per second: 9600

Data bits: 8

Parity: None

Stop bits: 1

Flow control: None

- 6 Click OK.
- 7 Click the **Settings** tab.
- 8 Click ASCII Setup. The ASCII Setup window appears.
- **9** Check the following check boxes:
  - Send line ends with line feed
  - Echo typed characters locally
  - Append line feeds to incoming line ends
- **10** Click **OK** to save and exit ASCII Setup.
- 11 Click OK.
- **12** Test your connection by typing UQ in all caps in the terminal window. The UQ command returns the settings for the printer, which will appear in the terminal window.

### To send ESim commands

• Type any ESim commands in the terminal window, and then press **Enter**. For a list of ESim commands, see *ESim for the PC4, PF8, PD41, and PD42 Printer Programmer's Reference Manual*.

### **Connecting the Printer Through the Parallel Port**

To connect the printer to a PC through the parallel device port, you need to install Intermec InterDriver® software and then connect the USB cable to your PC.

If you ordered a PF8 with a parallel port, the parallel cable you need is included in the shipping box with the printer. The InterDriver printer driver is available on the PrinterCompanion CD that ships with the printer. To make sure you have the latest version of InterDriver, you may want to go to the downloads page for the printer on www.intermec.com.

### To connect the printer to a PC through the parallel port

- 1 Open the Interdriver executable.
- **2** The File Download Security Warning screen appears. Click **Run** to run the executable.
- **3** The Intermec End User License Agreement screen appears. Read the agreement and select the radio button to accept the agreement, and then click **Next**.
- 4 The Installation Directory screen appears. The default installation directory is c:\Intermec\InterDriver7. Click Next to use the default directory or specify a different location to install the files.
- 5 The Installation Information screen appears. Clear the Run Add Print Wizard after unpacking drivers check box and click Finish.
- 6 On the New Hardware Wizard screen, select Install from a list or specific location and then click Next to continue.



**Note:** For LPT connections, you must restart your computer for Windows to detect the new hardware. For USB connections, the New Hardware Wizard will launch automatically when the printer is connected and turned on.

- 7 On the Search and Installation Options screen, click Next.
- 8 On the Hardware Installation warning screen, click **Continue Anyway**.
- **9** Click **Finish** to exit the New Hardware Wizard. InterDriver files are now installed on your computer.

**10** Connect the parallel port to the back of the printer and connect the other end to your PC. You do not need to set up any parameters for USB communications.

## **Connecting the Printer to Your Network**

If your PF8 comes with an internal Ethernet card, you can connect your printer to the network. The printer is set to automatically retrieve an IP number from the network (DHCP) once it is turned on. You can use the network connection either with LabelShop or the Intermec InterDriver. You can also use it to directly send commands to the printer through a terminal connection (HyperTerminal). For terminal connections, it utilizes the Raw TCP protocol through port 9100.

An Ethernet cable does not ship with the PF8. To connect the printer to your PC using the Ethernet port, you need to purchase an Ethernet cable.

#### To connect your printer to the Ethernet network

- **1** Connect one end of the Ethernet cable to the printer and the other end to the network.
- 2 On the desktop PC, start the HyperTerminal application and click Start > All programs > Accessories > Communications > HyperTerminal.
- **3** Do one of the following
  - If it your first time connecting to the printer, select a name and for your connection and click **OK**. The HyperTerminal window appears.
  - If you have saved a previous HyperTerminal connection, click
     File > Open to open an existing connection. The
     HyperTerminal window appears.
- **4** Go to **File > Properties**. The **Connect To** page appears.
- **5** On the **Connect To** dialog box
  - a Select **TCP/IP(Winstock)** from the **Connect Using** dropdown menu.

Enter the Host Address (ip address). To find your host address, you can send an ESim command using a serial connection. For help, see "Connecting the Printer Through the Serial Port" on page 37.

Or, you can create a test print. For help, see **"Performing a Testprint" on page 31**.

- **c** Enter 9100 for the Port number.
- **d** Click **OK** to save your settings.
- 6 Enter

^XSET, USBETHERNET, 1 in the terminal window to enable an Ethernet connection.

7 Test your connection by typing

UQ

in all caps in the terminal window. The UQ command returns the printer network settings, which will appear in the terminal window.

#### To send ESim commands

• Type any ESim commands in the terminal window, and then press **Enter**. For a list of ESim commands, see *ESim for the PC4, PF8, PD41, and PD42 Printer Programmer's Reference Manual.* 

### **Configuring the Printer**

You can configure the printer using the printer's home page, PrintSet, or ESimcommands. The printer's home page allows you to configure most of the network settings you need and is the recommended method for configuring your printer. You can also configure certain parameters using the EasyLan Control Center tool (ECCT).



**Note:** EaslyLan Control Center Tool (ECCT) is a temporary tool available on the Printer Companion CD. If PrintSet is not yet available use ECCT as a temporary substitute for setting the TCP/IP and IP address. For the latest version of PrintSet, see **www.intermec.com**.

### **Configuring the Printer Using the Printer's Home Page**

1 In a HyperTerminal window, type :

! U1 getvar "ip.addr"

and press **Enter**. The IP address displays in the HyperTerminal window.

- **2** Start a web browser.
- **3** In the address field type the IP address of your printer and press **Enter**. The home page of the printer appears.

Login   Status	ompanion	Technologies Corporation English   Deutsch   日本箭	繁體中文 簡体中文  Français
	Status		[Reload]
	Printer Information		
	Printer Model: P	F8-ESim 7.10	
	Internal USB Por	t: connection (high speed)	
	Server Information		
	Server Model: US Server Name: Eas Description: Net Firmware Version MAC Address: 00-	yLAN woking Printer Server : 2.374	
	TCP/IP Status		
	IP Address : 10 Subnet Mask : 25 Gateway : 10 DNS Server : 10 DHCP Server : 10 Lease Time : 28	.200.27.1 .10.1.155 .10.1.245	

- **4** Click **Login** and enter your administrator name and password. The Set General Configuration page appears.
- **5** On the navigation pane, click **Configuration**. The Configuration page appears.

PrinterCompanion Logout   Status   Config	Fortermec Technologies Corporation English   Deutsch   日本語   繁體中文   簡体中文  Français
User Account Configuration	Configuration
<u>TCP/IP</u> Printer Configuration	<u>TCP/IP</u> <u>Printer Configuration</u>
Alert Messages Filter SNMP	<u>Alert Messages Filter</u> <u>SNMP</u>
<u>SMTP</u>	<u>SMTP</u>
Maintenance Printer Control	
<ul> <li>Diagnosis</li> <li>Alert Message</li> </ul>	
Support	

**6** Click on the settings listed on the **Configuration** page to configure the network setting of your printer.

### **Configuring the Printer Using PrintSet**

PrintSet is a printer configuration tool that allows you to easily change your setup parameters. You can also use the setup wizards in PrinSet to guide you through common configuration tasks.

#### To configure your printer using PrintSet

- 1 Make sure that you have a PC running Microsoft Windows 98 or later.
- **2** Download PrintSet from the Downloads page of the Intermec web site at **www.intermec.com**.
- **3** Connect your printer to your PC using a serial cable. For help, see **"Connecting the Printer Through the Serial Port" on page 37**.

**4** Install PrintSet and then use the PrintSet wizard to guide you through common configuration tasks.

### **Configuring the Printer Using EasyLan Control Center Tool**

The EasyLan Control Center tool (ECCT) is an alternative to PrintSet that allows you to change a small set of configuration parameters. To configure parameters unavailable on the EasyLan Control tool, use the printer's home page. Or, download the latest version of PrintSet on **www.intermec.com**. You can also use the EasyLan Control Center to access your printer's home page.

### To configure your printer using EasyLan Control Center Tool

- **1** Navigate to and download the EasyLan Control Center Tool from the PrinterCompanion CD.
- 2 Start EasyLan Control Center. All the printers that are connected to your network are listed in the tool. For help connecting your printer to the network, see "Connecting the Printer to Your Network" on page 40.
- **3** Double-click the printer you want to configure.

**4** Enter your username and password. The EasyLan Control Center page appears.

EasyLAN Control Center							
ТСРЛР							
Set TCP/IP Configuration						 	
Current IP : 10.200.27.181							
<ul> <li>Automatically get IP by Di</li> </ul>	HCP						
📃 Manual DNS	192	102	168	242			
O Static IP							
IP Address	192	168	102	242			
Subnet Mask	1	0	0	0			
Default Gateway	1	0	0	0			
DNS Server	1	0	0	0			
(		aat		A		Clear	
l	He	set		App	UV.	<u>C</u> lose	

- 5 Select the radio button to configure your printer to either Automatically get IP by DHCP (default) or Static IP.
- **6** If you choose configure a Static IP, you can also set the following parameters:
  - IP Address
  - Subnet Mask
  - Default Gateway
  - DNS Server

To set the parameters listed in this step, enter a numerical value in the box of the parameter you want to change.

### To view the printer's home page

- **1** Navigate to and download the EasyLan Control Center tool from the PrinterCompanion CD.
- 2 Start EasyLan Control Center. All the printers that are connected to your network are listed in the tool. For help connecting your printer to the network, see "Connecting the Printer to Your Network" on page 40.
- **3** Right-click on the printer you want to configure and select **Go to Homepage**. The home page of the printer appears.

### **Configuring the Printer Using ESim Commands**

- Using HyperTerminal, establish communication between the printer and your PC. For help, see "Connecting the Printer Through the Serial Port" on page 37 or "To connect your printer to the Ethernet network" on page 40.
- **2** In the HyperTerminal window, type a network configuration command and press **Enter**. For example, using ESim commands you can:
  - Set the IP address.
  - Set the Gateway.
  - Set the Nameserver.

For a list of network configuration commands, see *ESim for the PC4*, *PF8*, *PD41*, *and PD42 Printer Programmer's Reference Manual*.

**3** In they HyperTerminal window, type UQ and press **Enter**. The list of network configurations set for the printer will display in the window.

# **Upgrading the Firmware**

To upgrade the printer firmware, you must open the ESim ConfigTool and use it to install the latest firmware files. The ESim Config Tool is located on the PrinterCompanion CD that ships with your printer. To make sure you have the latest version of the ESim Config Tool, you may want to go to the downloads page for the printer on **www.intermec.com.** 

#### To upgrade printer firmware

- 1 Make sure your printer is connect to your PC. For help, see "Connecting the Printer to Your PC" on page 36.
- 2 Download the firmware (.ufz) files you want to upgrade to a location on your PC. For the latest files, go to www.intermec.com.
- **3** Open the ESim Config Tool. The Intermec ESim Config Tool screen appears.
- **4** In the **Select Port** drop down, select **COM1** or **LPT1** (parallel cable).
- **5** Select the appropriate printer.
- 6 Click the Firmware download tab.
- 7 Click the Start Firmware Update wizard.
- **8** Browse to and select the firmware (.ufz) files where you downloaded the firmware files you want to upgrade to.
- **9** Click **OK** to upgrade the firmware.

# **Upgrading the Ethernet Firmware**

To upgrade the Ethernet printer firmware, you must go to the home page of the printer and install the latest Ethernet firmware files. To upgrade printer firmware

- 1 Make sure your printer is connect to your PC. For help, see "Connecting the Printer to Your PC" on page 36.
- 2 In the address field type the IP address of your printer and press **Enter**. The home page of the printer appears.
- **3** Click **Login** and enter your administrator name and password. The **Set General Configuration** page appears.
- 4 From the navigation pane, click Maintenance > Server Firmware Update to download the Ethernet firmware (.bin) files upgrade your Ethernet firmware.
- **5** Reboot your printer.

### Chapter 2 – Connecting the Printer

# **3** Troubleshooting and Maintaining the Printer

Use this chapter to troubleshoot and maintain your PF8d and PF8t printers. This chapter contains these sections:

- Troubleshooting
- Installing the CompactFlash Card (PF8t Only)
- Cleaning the Printer
- Adjusting the Printer

# Troubleshooting

The following table lists possible printer issues that may arise and how to solve them.

Issue	Solution	
LED unlit when power is on.	Make sure connections on the power supply are securely plugged into the AC receptacle on the printer and to an AC outlet.	
LED is green but printer will not feed.	• Label taken sensor is on and the last label printed has not been removed.	
	• Make sure correct type of interface cable is securely plugged in to both the printer and computer.	
Printer seems to be	Direct Thermal Printing	
working but nothing prints.	• Check that the heat-sensitive side of the media faces the printhead. If not, reload the media correctly.	
	• Verify that the media is intended for direct thermal printing by testing to see if the media is blackened by heat from a hot object (70°C [160°F] or higher).	
	Thermal Transfer Printing	
	• Verify that the printer is loaded with thermal transfer ribbon and that the ink-coated side (dull side) of the ribbon is facing the media. If not, reload the ribbon correctly.	
Print quality is poor.	Clean the printhead. See <b>"Cleaning the Printhead" on page 55</b> . If cleaning the printhead does not improve print quality, adjust the printhead pressure. See <b>"Adjusting the Printer" on page 55</b> .	
Partial labels printed.	• Print carriage is not fully locked. Open the printer and lower the printhead completely.	
	• Label caught on printhead. Remove label and clean printhead. See <b>"Cleaning the Printhead" on page 55</b> .	
Printer continues to print or feed when it should stop printing.	<ul> <li>Stuck label is blocking the label gap sensor. Open the top cover, remove the label and clean the printhead. See "Cleaning the Printhead" on page 55.</li> </ul>	
	<ul> <li>Possible firmware problem. See "Installing the CompactFlash Card (PF8t Only)" on page 53.</li> </ul>	

### Troubleshooting Printer Issues

Issue	Solution
Printing stops and status LED glows	<ul> <li>Possible problem with label gap sensor. Perform an auto adjust in Auto-Sensing mode.</li> </ul>
orange.	• Possible media jam. Open the printer and check for stuck labels or ripped perforations.
	<ul> <li>Possible firmware problem. See "Installing the CompactFlash Card (PF8t Only)" on page 53.</li> </ul>
Label stuck on roller.	Open the self-strip mechanism and peel off the stuck label while manually rotating the roller. Do not use any sharp tools to remove the label. Clean the self-strip mechanism and printhead. See <b>"Cleaning the</b> <b>Printhead" on page 55</b> .
Label taken sensor does not hold printing until	• The label or tag is bent down due to excessive length and/or too thin or soft media. Pull the media bck.
the label or tag has been	• The label or tag too short. Pull the media forward.
removed.	• The label taken sensor or cable is defective. Replace the label taken sensor.
Indicator LED flashes red and printing is interrupted.	Overheated. Wait for the printer to cool down. When cool enough, the LED changes to green and printing (if halted) resumes.

#### Troubleshooting Printer Issues (continued)

# Installing the CompactFlash Card (PF8t Only)

The PF8t is supplied with 4 MB flash memory and 8 MB of SDRAM memory. You can expand the built-in memory using a CompactFlash card if your application requires more memory. You will need to purchase and install a CompactFlash adapter to use a CompactFlash card.

You can select which memory source you want to use. Use Windows HyperTerminal to send an ESim **M** command to the printer to select your memory source. You can only use one memory source.

ESim memory allocation commands are:

- M0 Select built-in memory
- M1 Select CompactFlash memory
- MF Format the CompactFlash card

#### Chapter 3 – Troubleshooting and Maintaining the Printer

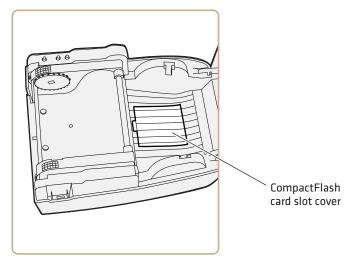
For more information on ESim commands, refer to the *ESim for the PC4*, *PF8*, *PD41*, *and PD42 Printer Programmer's Reference Manual*.



Turn the printer power off when installing or removing the CompactFlash card.

### To install the CompactFlash card

- **1** Turn the PF8t power off.
- **2** Open the top cover by pressing the cover open buttons on either side of the top cover.
- **3** Remove any media and the spindle.
- **4** Open and remove the CompactFlash card slot cover from the printer base.



- 5 Insert the CompactFlash card in the CompactFlash adapter. Make sure that the card is oriented correctly to fit in the slot. Push firmly to seat the card.
- **6** Install the CompactFlash card slot cover.
- 7 Close the top cover and turn on the printer power.

# **Cleaning the Printer**

Clean your printer regularly to maintain the quality of your labels and extend the life of your printer.

### **Cleaning the Case**

Keep your PF8 printer clean by periodically wiping it with a soft cloth dampened with water. Do not use abrasive cleaners or solvents that will scratch the surface of the case.

### **Cleaning the Printhead**

When you are loading new media. use the Cleaning Card (P/N 1-110501-00) to clean the printhead before resuming printing. The Cleaning Card can also be used to remove label adhesive residue from the printhead.

### To clean the printhead

- **1** Turn off power to the printer.
- **2** Open the top cover and print carriage.
- **3** Remove the media and, if present, also remove the transfer ribbon.
- **4** Insert the cleaning card under the print carriage where the media would normally go. Approximately 2 to 3 cm (1 in) of the card should extend to the front of the printhead.
- **5** Close the print carriage.
- **6** Use one hand to hold the printer steady. Use the other hand to pull the cleaning card forward until it is out of the printer.
- **7** Repeat Steps 4 through 6 to complete a second cleaning pass.
- **8** Dispose of the used cleaning card. Load printer with media and ribbon.

# **Adjusting the Printer**

Keeping the printhead properly balanced is crucial for obtaining high quality printouts. Adjusting the printhead consists of adjusting the:

• printhead pressure

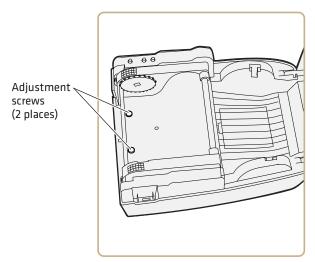
- printhead alignment
- printhead sensor mode (dotline)

### Adjusting the Thermal Printhead Pressure (PF8t only)

When you print with different label materials or use different types of ribbons on the PF8t printer, print quality may be affected due to differences in the material. If this happens, adjust the thermal printhead pressure appropriately for the type of material you are using.

### To adjust thermal printhead pressure

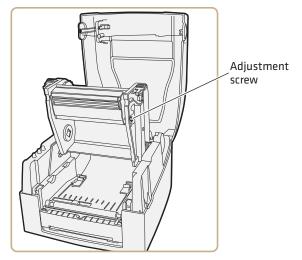
- **1** Turn off power to the printer.
- **2** Press the cover open buttons on both sides of the case to open the top cover. Lift the cover upwards and rearwards.
- **3** Using a straight-slot screwdriver, turn the screws clockwise to increase printhead pressure or counterclockwise to decrease printhead pressure.



### **Adjusting the Printhead Alignment**

You can improve the print quality by adjusting the alignment between the printhead and the platen roller.

• Turn the adjustment screw counterclockwise or clockwise to adjust the contact between the printhead and platen roller.



PF8t Printhead Alignment Adjustment Screw

### **Adjusting the Label Taken Sensor**

The built-in label taken sensor can be enabled to pause printing until a printed label is removed from the printer's output slot. The printer will not continue printing until the label taken sensor no longer detects a label.

When you are using the ESim protocol, note the following:

- The label taken sensor must be enabled using the manual switch next to the sensor before it can be enabled or disabled using ESim commands.
- When switching between self-strip, tear-off, and cut-off operation, you must adjust the media feed in ESim by using a **j** command. For more information, see the *ESim for the PC4, PF8, PD41, and PD42 Printer Programmer's Reference Manual*.

If you are using InterDriver you can select one of the following modes of operation without issuing commands:

- Tear-off
- Self-strip with label taken sensor enabled

#### Chapter 3 – Troubleshooting and Maintaining the Printer

• Self-strip with label taken sensor disabled

The InterDriver files are on the PrinterCompanion CD or available for download from the Intermec web site at **www.intermec.com**.

### Adjusting the Label Gap Sensor

The PF8 printers are fitted with a label gap sensor that detects the slots between tickets and tags or gaps between labels as media is fed past the sensor during printing. The label gap sensor determines the length or tag or labels and controls the media and ribbon feed accordingly.

The label gap sensor is a center-aligned photoelectric sensor that measures the light that passes through the media path. The transparency of the liner of a label supply may change from batch to batch, making it difficult for the sensor to determine the length of the media. If this happens, the status LED will change from green to orange, indicating you need to adjust the sensor using the Auto-Sensing mode. For more information, see **"Loading Media" on page 7**.

### Adjusting the Label Stop/Black Mark Sensor

Note: This sensor is only adjustable on the PF8t.

The default position of the Label Stop Sensor/Black Mark sensor is all the way to the right of the slot, at the center of the printer. For an illustration, see the **"Front Controls and Indicators" on page 3**. For most media, this is the correct position. On rare occasions, such as unusually small labels or non-typical placement of black marks or notches, the sensor can be adjusted as necessary.

If you are using Gap sensing or Continuous stock, this sensor MUST be in the default, far-right position, or "Out of Paper", "Media not Loaded", or other media fault errors may continually occur.

### To locate and adjust the black mark/label stop sensor

- **1** Open the top of the printer.
- **2** Lift the printhead.

- **3** The Black Mark sensor is right near the front of the printer, just behind the roller, in a groove that runs from the left side of the printer to the middle. The sensor optics are visible as a small slit on the left, and there is a ridged finger-notch to the right.
- **4** If the sensor is not all the way to the right, put your fingertip in the ridged finger-notch and slide the sensor all the way to the right. Do not touch the sensor itself, as natural finger oils may dirty the optics.
- **5** Lower the printhead, close the printer, and try printing again.

### Chapter 3 – Troubleshooting and Maintaining the Printer

# A Printer Specifications

This appendix contains specifications for the printer and media. It also contains information on the accessories for the printers.

## **PF8d Printer Specifications**

#### **Physical Specifications**

Dimensions: 218 x 166x 168 mm (8.58 x 6.53 x 6.61 in)

Weight: 2.0 Kg (4.4 lbs)

#### **Power Specifications**

Printer Voltage: ---100 to 240 V, 1-6A 50/60 Hz

#### **Temperature and Humidity Specifications**

Operating Temperature:	5°C to 40°C (41°F to 104°F)
Storage Temperature:	-20°C to 50°C (-4°F to 122°F)
Operating Humidity:	30 to 85% non-condensing
Storage Humidity:	10 to 90% non-condensing

#### **Communications and Connectivity**

- Serial port (RS-232)
- USB device
- Ethernet (Optional)
- IEEE 1284 parallel port

#### Memory

- 4 MB Flash
- 8 MB SDRAM
- CompactFlash (CF) card (optional)
- USB memory device (optional)

#### PF8d Print Speed and Resolution

Specification	Description
Print Mode	Direct Thermal
Print Speed (variable)	2, 3, and 4 ips
Printhead Resolution	8 dot/mm (203 dpi)
Print Width (max)	104 mm (4.09 in)
Media Width (min/max)	25 mm to 118 mm (1 in to 4.65 in)

Specification	Description
Media Roll Diameter	
Medial Roll Core Diameter	25 mm, 38 mm (1 in, 1.5 in)
Media Thickness	Thickness: 0.05 to 0.18 mm (.002 to .007 in)

#### **PF8d Print Speed and Resolution (continued)**

## **PF8t Printer Specifications**

#### **Physical Specifications**

Dimensions:	285 x 172 x 226 mm (11.2 x 6.8 x 8.9 in)
Weight:	2.5 Kg (5.5 lb)

#### **Power Specifications**

Printer Voltage: ---100 to 240 V, 1-6A 50/60 Hz

#### **Temperature and Humidity Specifications**

Operating Temperature:	5°C to 40°C (41°F to 104°F)
Storage Temperature:	-20°C to 50°C (-4°F to 122°F)
Operating Humidity:	30 to 85% non-condensing
Storage Humidity:	10 to 90% non-condensing

#### **Communications and Connectivity**

- Serial port (RS-232)
- USB device
- Ethernet (Optional)
- IEEE 1284 parallel port

#### Memory

- 4 MB Flash
- 8 MB SDRAM
- CompactFlash (CF) card (optional)

Specification	Description
Print Mode	Direct Thermal
Print Speed (variable)	2, 3, and 4 ips
Printhead Resolution	8 dot/mm (203 dpi)
Print Width (max)	104 mm (4.09 in)
Media Width (min/max)	25 mm to 118 mm (1 in to 4.65 in)
Media Roll Diameter	
Medial Roll Core Diameter	25 mm, 38 mm (1 in, 1.5 in)
Media Thickness	Thickness: 0.05 to 0.18 mm (.002 to .007 in)
Ribbon Width	
Ribbon Roll Diameter (outer)	
(max)	
Ribbon Roll Core Diameter (inner)	

#### PF8t Print Speed and Resolution

## **PF8 Interfaces**

## **RS-232 Serial Interface**

Use this table to understand the default settings of the serial port.

#### Default Settings of the Serial Port

Parameter	Default Settings
Baud rate	9600
Character Length or data bits	8
Parity	None
Stop Bits	1
Handshaking	XON/XOFF

Pin	Host - DB9 Socket	Printer - DB9 Plug
1		+5V, max 500ma
2	RXD	TXD
3	TXD	RXD
4	DTR	N/C
5	GND	GND
6	DSR	RTS
7	RTS	CTS
8	CTS	RTS
9	RI	N/C

#### Serial Cable Pins and Descriptions

Setting: RTS/CTS RS-232 housing: 9-pin to 9-pin



**Note:** The total current output from the serial port cannot exceed 500 mA.

## **USB** Interface

Use this table to understand the USB cable interface.

#### **USB** Cable Pins and Descriptions

Pin	Function
1	VBUS
2	D-
3	D+
4	GND

Connector Type: B

## **Parallel Interface**

Use this table to understand the pins for the parallel cable.

Pin	Function	Transmitter
1	/Strobe	host/printer
2-9	Data 0-7	host
10	/Acknowledge	printer
11	Busy	printer
12	/Paper empty	printer
13	/Select	printer
14	/Auto line feed	host/printer
15	N/C	
16	N/C	
17	N/C	
18	+5V, max 500ma	
19-30	Signal GND	host
31	/Initialize	host/printer
32	/Error	printer
33	Signal GND	
34-35	N/C	
36	/Select in	host/printer

#### Parallel Cable Pins and Descriptions

Handshake: DSTB connects to the printer, BUSY connects to the host Interface cable: Parallel cable compatible with computer.

## **Internal Interface**

Use this table to understand the internal interface for the PF8.

#### Internal Interface Pins and Descriptions

Pin	UART1 Wafer	Ethernet Module
1	N.C	N.C
2	TXD	RXD

Pin	UART1 Wafer	Ethernet Module
3	RXD	TXD
4	CTS	RTS
5	GND	GND
6	RTS	CTS
7	E_MD	E_MD
8	RTS	CTS
9	E_RST	E_RST
10	+5V	+5V
11	GND	GND
12	+5V	+5V

#### Internal Interface Pins and Descriptions (continued)

## **Media Specifications**

## **Direct Thermal Media**

Intermec offers a premium and an economy grade of direct thermal media for the PF8 printers.

#### **Premium Quality**

Top-coated media with high demands on printout quality and resistance against moisture, plasticizers and vegetable oils.

Examples of Premium Quality Media

Europe	North America
Thermal Top Board	Duratherm Ltg.
Thermal Top	Duratherm IR
Thermal Top High Speed	

#### Appendix A – Printer Specifications

#### **Economy Quality**

Uncoated media with less resistance to moisture, plasticizers and vegetable oils. In all other respects, it is equal to premium quality.

#### Examples of Economy Quality Media

Europe	North America
Thermal Eco	Duratherm II
Thermal Eco Board	Duratherm II Tag

## **Thermal Transfer Media**

Intermec offers stock media for thermal transfer printing in a wide range of quality grades.

#### **Uncoated Papers**

Used for economical high-volume printing in combinations with GP/ TMX1500 ribbons.

#### Examples of Uncoated Papers

Europe	North America
TTR Uncoated	Not Available

#### **Coated Papers**

Coated papers have various coat-weight, smoothness, and gloss. To be used with HP/TMX2200 and GP/TMX1500 ribbons.

#### **Examples of Coated Papers**

Europe	North America
TTR Matte	Duratran II
TTR Premium	Duratran II Tag
TTR Premium Board	

#### **Polyethylene Plastics**

Good resistance to water and many common chemicals. Can be used outdoors and offers good tear resistance. Most often used in combination with HP/TMX2200 ribbons.

#### Examples of Polyethylene Plastics

Europe	North America
TTR Polyethylene	Duratran II Kimdura
TTR Gloss Polyethylene	Duratran II Synthetic Tag
	Duratran II Syntran

#### Polyesters

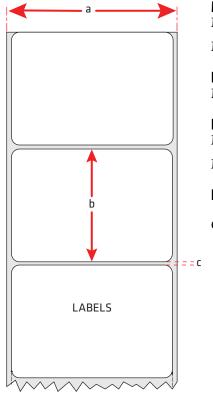
The materials of choice in combination with HR/TMX3201/ TMX3202 ribbons. Gives high resistance to chemicals, heat, and mechanical abrasion.

#### **Examples of Polyesters**

Europe	North America
TTR High Gloss Polyester	Duratran II Gloss Polyester

## Labels

#### **Non-Continuous**



**Media width includes liner (a)** Maximum:116.0 mm (4.57 in)

Minimum: 25.0 mm (1 in)

Label length (b) Minimum: 12.0 mm (0.5 in)

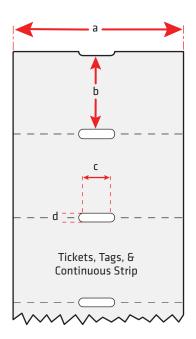
**Label gap height (c)** Maximum: 10 mm (0.39 in)

Minimum: 3 mm (0.12 in)

Liner

Opacity: 75%

## **Tags and Strip With Slots**



**Tag or strip width (a)** Maximum: 116.0 mm (4.57 in) Minimum: 25.0 mm (1.00 in)

**Tag length (b)** Minimum: 12.7 mm (0.50 in)

**Detection slot width (c)** Minimum: 14.0 mm (0.55 in)

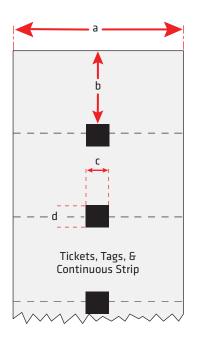
### Detection slot height (d)

Maximum: 10.0 mm (0.39 in)

Minimum: 3.0 mm (0.12 in)

The label gap sensor is offset 2.5 mm (0.10 in) to the left of the center of the media path.

#### **Tags and Strip With Black Marks**



**Tag or strip width (a)** Maximum: 116.0 mm (4.57 in) Minimum: 25.0 mm (1.00 in)

**Tag length (b)** Minimum: 12.7 mm (0.50 in)

**Detection slot/Black mark** width (c) Minimum: 14.0 mm (0.55 in)

**Black mark height (d)** Maximum: 10.0 mm (0.39 in)

Minimum: 3.0 mm (0.12 in)

The black mark sensor is centered on the media path.

Maximum reflectance 5% at 940 nanometers. Carbon black.

#### **Plain Continuous Stock**

The PF8 printers can use continuous stock without any detection slots or black marks. The printer must be set for continuous stock by using the ESim Q command. For more information, see the *ESim for the PC4, PF8, PD41, and PD42 Printer Programmer's Reference Manual*.

The length of each copy is decided by the size of the print image and any additional media feed is decided by the Q command. Continuous stock cannot be used in the Auto-Sensing mode.

### Tag or strip width (a)

Maximum: 116.0 mm (4.57 in) Minimum: 25.0 mm (1.00 in)

## **Transfer Ribbons**

Intermec offer three types of thermal transfer ribbons optimized for different purposes:

#### General Purpose (GP/TMX1500)

General purpose transfer ribbons allow high speed printing and give a good printout, but are somewhat sensitive to smearing. These are best suited choice for uncoated and coated papers.

#### High Performance (HP/TMX2200)

High performance transfer ribbons allow high speed printing and gives a highly readable and defined printout on most face materials with smooth surfaces. They have good "smear resistance" and are most suitable for intricate logotypes and images on matte coated papers and synthetic face materials.

## High Resistance (HR/TMX3201/TMX3202)

High resistance transfer ribbons give an extremely durable printout that is resistant to most chemical agents and high temperatures. However, such transfer ribbons set high demands on the receiving face material, which must be very smooth, such as polyesters.



**Note:** Intermec thermal transfer ribbons are engineered specifically for the PF8 printheads.

## Accessories for the Printer

Accessories for the PF8 printers are sold and ordered separately. Serial and parallel cables, media, and transfer ribbons are also available. To order, contact your local Intermec sales representative.



The Cutter Kit and Stripper Module must only be installed by an authorized service technician. Intermec assumes no responsibility for personal injury or damage if the installation is performed by an unauthorized person.

## Cutter Kit

The cutter is designed to cut continuous paper-based stock or liner between labels.

## **Stripper Module**

The self-strip feature peels the label away from the liner (backing paper) as it prints for faster on-demand labeling.

# **B** Default Settings

## **Default Configuration**

Use this appendix to view the default settings on the printer. If you need to restore factory defaults at any time, you can use PrintSet or the printer home page to reset the printer.

#### To reset the printer to factory defaults using Printset

• Use the Factory Default Wizard in the Printer Tasks box.

#### To reset the printer to factory defaults using the home page

- 1 Start a web browser.
- 2 In the address field type the IP address of your printer and press **Enter**. The printer's home page appears.
- **3** Click **Login** and enter your administrator name and password. The Set General Configuration page appears.
- **4** On the navigation pane, click **Configuration**. The Configuration page appears.
- 5 Click TCP/IP > Reset.
- **6** Reboot the printer.

The following tables list the default values of the configuration commands supported on the PF8d and PF8t printers. If you restore the printer to factory default settings, these are the values it uses.

## **Printer Default Settings**

#### Serial Communication Parameters

Parameter	Default Value
Baud rate	9600
Data bits	8
Parity	None
Stop bits	1
Protocol	XON/XOFF

#### **COM Parameters**

Parameter	Default Value
Interface	USB Device
USB keyboard	US

#### **Network Parameters**

Parameter	Default Value
IP Selection	DHCP
IP Address	N/A
Netmask	N/A
Default router	N/A
DHCP response	N/A
MAC address	N/A

#### **Test/Service Parameters**

Parameter	Default Value
Testprint	N/A
Data dump	Off

#### **Media Parameters**

Parameter	Default Value
Media type	Gap
Paper type	DT (Direct Thermal)
LBL dots	1200 dots
Darkness	12
LBL reset point	0
Form adjust dots X	+0
Form adjust Y	+0

#### **Configuration Parameters**

Parameter	Default Value
Emulation mode	N//A
Print speed	2 in/sec
Cutter	Not installed

#### Appendix B – Default Settings



Worldwide Headquarters 6001 36th Avenue West Everett, Washington 98203 U.S.A. tel 425.348.2600 fax 425.355.9551 www.intermec.com © 2009 Intermec Technologies Corporation. All rights reserved.



P/N 934-011-005