



*Innovative Business Printing Solutions*

# Mt3-II Series

# Operator's Manual

Printek, Inc.  
1517 Townline Road  
Benton Harbor, MI 49022

269-925-3200

[www.printek.com](http://www.printek.com)

Printek Part Number 5992 Rev A

## FCC Part 15 Class B

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 to 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 the 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.

## Bluetooth Equipped Models:

This equipment contains an OEM Serial Port Adapter from connectBlue with FCC ID: PVH070101. This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## Wi-Fi Equipped Models:

This equipment contains an OEM Wireless LAN Node Module from DPAC Technologies with FCC ID: RTTABDB-SEDP. This device has shown compliance with the conducted emissions limits in 15.107, 15.207, or 18.307 adopted under FCC 02-157 (ET Docket 98-80).

## Battery Disposal

Only dispose of used batteries according to your local regulations. If you do not know your local regulations, the Rechargeable Battery Recycling Corporation (RBRC) is a non-profit organization created to promote recycling of rechargeable batteries. For more information visit [www.rbrc.org](http://www.rbrc.org).



## Acknowledgments:

Printek is a registered trademark of Printek, Inc.  
Bluetooth is registered trademark of Bluetooth SIG, Inc.  
Palm OS is a trademark of PalmSource, Inc.  
PrintBoy is a registered trademark of Bachmann Software  
PrinterCE is a registered trademark of FieldSoftware Products  
Wi-Fi is a registered trademark of the Wi-Fi Alliance  
Windows is a registered trademark of Microsoft Corporation  
All other trademarks are the property of their respective owners.

© 2004 By Printek, Inc., 1517 Townline Road, Benton Harbor, MI 49022. All rights reserved.

Specifications are subject to change without notice.



Read all setup and operating instructions before proceeding with operation.

Do not operate in an enclosure unless properly ventilated. Make sure no ventilation openings are blocked or obstructed, which may result in the printer overheating.

Do not operate near a heat source.



Lesen Sie vor der Inbetriebnahme die Aufbau- und Bedienungsanleitung.

Betreiben Sie den Drucker nicht in einem kleinen, geschlossenen Raum, es sei denn dieser wird ordnungsgemäß belüftet. Achten Sie darauf, dass die Lüftungen nicht blockiert oder versperrt sind, denn dies kann zum Überhitzen des Druckers führen.

Nehmen Sie den Drucker nicht in der Nähe einer Wärmequelle in Betrieb.



No user-serviceable parts inside. Refer service or repairs to a qualified service professional.

Use of genuine Printek replacement parts is required to warrant proper, safe operation.

Any alteration or modification of this device voids the user warranty and may make the product unsafe to operate.

The print head and motors get hot during use. Wait until they cool before touching them.

Make certain the printer is disconnected from AC power before removing any covers or performing any required cleaning or maintenance.

Connecting this printer to an ungrounded receptacle can result in electrical shock.

Never place the printer near inflammable or explosive substances. Do not operate near liquid or spill liquid into the printer at any time.



Enthält keine Teile, die vom Bediener instandgesetzt werden können. Bitte wenden Sie sich bei Instandsetzung oder Reparatur an qualifiziertes Kundendienstpersonal.

Die Verwendung von echten Printek Ersatzteilen ist notwendig, um ordnungsgemäßen, sicheren Betrieb zu gewährleisten.

Änderungen oder Modifikationen dieses Geräts machen die Garantie ungültig und können den sicheren Betrieb des Produkts gefährden.

Während des Druckens werden Druckerkopf und Motoren heiß. Warten Sie, bis sich die Teile abgekühlt haben, bevor Sie sie berühren.

Vergewissern Sie sich, dass der Drucker nicht mehr an die Stromquelle angeschlossen ist, bevor Sie Abdeckungen abnehmen oder das Gerät reinigen bzw. warten.

Schließen Sie diesen Drucker nicht an eine ungeerdete Steckdose an; dies kann zum Elektroschock führen.

Setzen Sie den Drucker niemals in die Nähe von feuer- oder explosionsgefährlichen Stoffen. Betreiben Sie den Drucker nicht in der Nähe von Flüssigkeiten und lassen Sie keine Flüssigkeiten in den Drucker gelangen.



# TABLE OF CONTENTS

<b>Introduction .....</b>	<b>1</b>
<b>Getting Started .....</b>	<b>3</b>
Battery and Safety Information.....	3
Installing the Battery Cartridge.....	4
Charging the Battery.....	5
Attaching The Belt Loop System.....	5
<b>Operation .....</b>	<b>7</b>
Media Loading.....	7
Tearing Off Print Job.....	7
Initial Power Up And Self-Test.....	8
Reading the Indicator Status.....	9
Using the Magnetic Card Reader (MCR).....	10
<b>Configuration and Data Connectivity.....</b>	<b>11</b>
Configuration Switches.....	11
Serial RS232C Communication.....	12
IrDA Communication.....	13
Bluetooth Wireless Data Communication.....	13
Wi-Fi Communication.....	14
Programming Information.....	15
<b>Printer Maintenance and Troubleshooting.....</b>	<b>19</b>
Cleaning.....	19
Charging The Printer Battery.....	19
Verifying Battery Charge State.....	20
Troubleshooting.....	21
Obtaining Service.....	21
<b>Printer Specifications .....</b>	<b>23</b>
Media Specifications.....	23
Printer Supplies & Accessories.....	24
Warranty.....	24
<b>Glossary of Terms .....</b>	<b>25</b>



# Introduction

Thank you for purchasing a Printek Mt3-II Series mobile printer. The Mt3-II series has been designed to provide you years of service handling your most demanding printing requirements in the mobile arena. If you have any questions, or would like more information on the various supplies and accessories that are available for the Mt3-II Series, please visit us on the internet at [www.printek.com](http://www.printek.com), or call our Sales Department at (800) 368-4636.

## Models and Options

The Mt3-II is a mobile thermal printer capable of printing on roll media up to 3.125” in width.

In addition to the built in RS-232C and IrDA communications interfaces, the Mt3-II Series printers may be optionally equipped with either a Bluetooth or Wi-Fi interface.

The printers may also be purchased with a Magnetic Card Reader for POS credit card data capture for line busting and other customer convenience applications.

In addition, Printek provides many useful accessories such as environmental cases, shoulder straps, multi-bay battery chargers, and in-vehicle power adapters to cover all the needs of your user environment. Visit our website at [www.printek.com](http://www.printek.com) for more information.

## Manual Contents

***Getting Started*** provides information on the printer features and instructions for installing and charging the batteries.

***Operation*** describes media loading, initial power up and self test, the proper tear action, and how to choose the correct media for your application.

***Configuration and Data Connectivity*** provides detailed information on how to setup the printer to work with your host and your communication method.

***Printer Maintenance and Troubleshooting*** gives tips about cleaning, battery charging, and what to do if your printer is not performing as you expect.

***Printer Specifications*** lists the operating ranges and ratings of the printer.

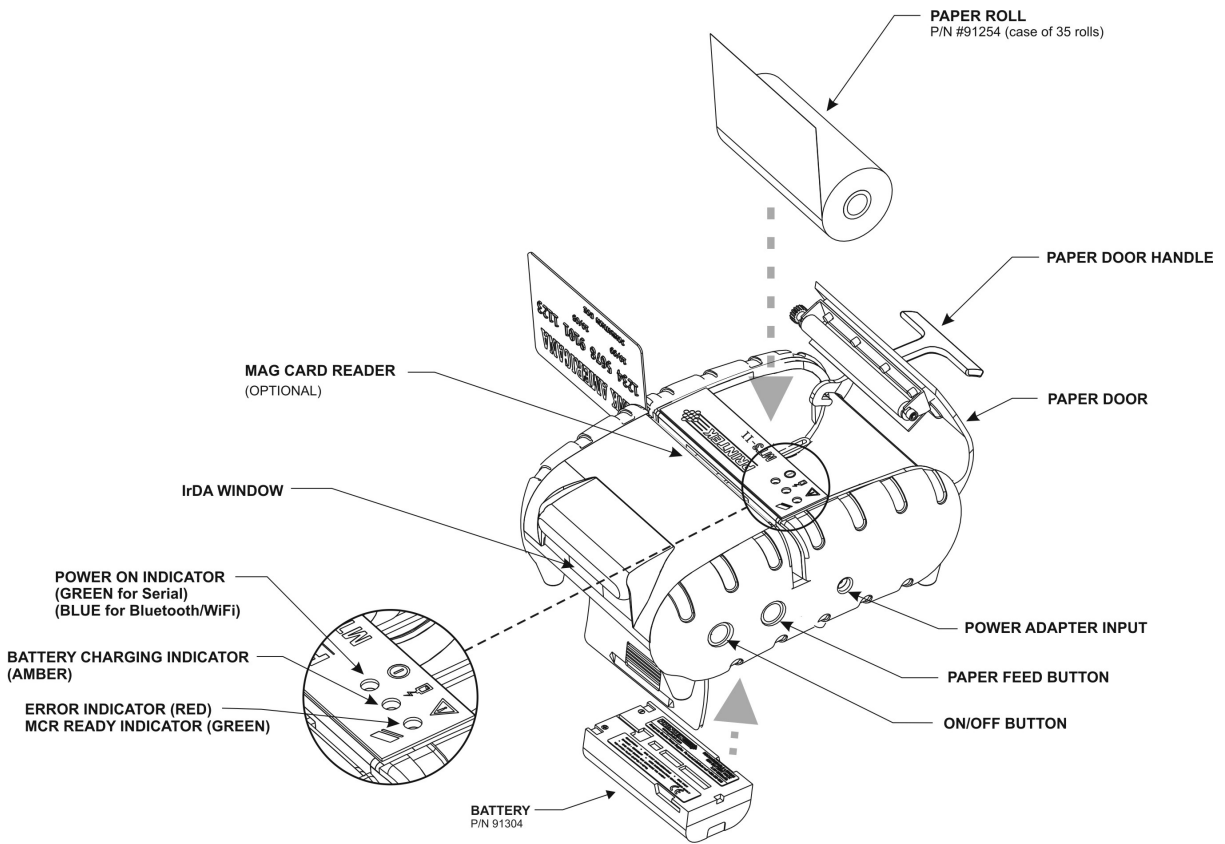
***Glossary of Terms*** is a reference for terminology used within this manual and in the computer and printer industry.





# Getting Started

Please familiarize yourself with the features of your printer as shown in the following diagram. Each printer includes a battery cartridge, a belt loop system, and one roll of receipt paper.



**Printer Features**

## Battery and Safety Information

- A 7.4 Volt 2200mAH Li-Ion battery cartridge powers the printer.
- Charging time in the printer is approximately 180 minutes.
- Take the battery out of the printer when storing the printer for long periods of time.

## Getting Started

---

- The recommended room temperature for charging is between 68°F (20°C) to 77°F (25°C).
- The battery storage temperature is 40°-104°F (4°-40°C). Do not store a fully charged battery at temperatures greater than 104°F (40°C) for long periods of time – the battery may permanently lose charge capacity.
- Be sure to use a fully charged battery before long or battery intensive printing sessions. Certain operations (for example, printing receipts with a lot of bar codes and graphics) drain the battery more quickly than others.

**Caution:** Do not disassemble, short circuit, heat above 80°C, or incinerate. The battery may explode.

## Battery Disposal

Only dispose of used batteries according to your local regulations. If you do not know your local regulations, the Rechargeable Battery Recycling Corporation (RBRC) is a non-profit organization created to promote recycling of rechargeable batteries. For more information visit [www.rbrc.org](http://www.rbrc.org).

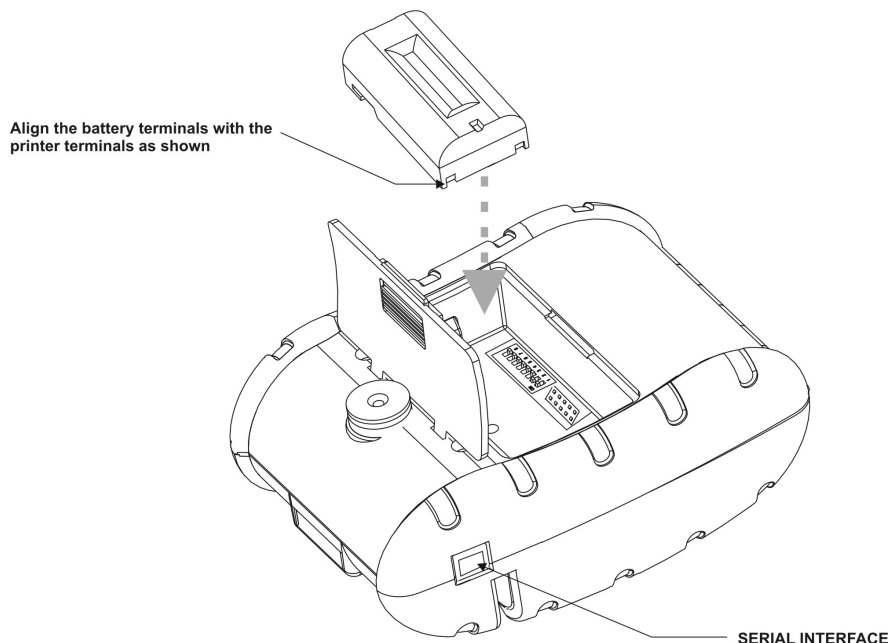


## Installing the Battery Cartridge

One battery cartridge is included with the printer. Similar to a cordless phone battery, the printer's battery must be charged before using it.

Refer to the following picture to install the battery pack in the printer.

1. Unlock the battery door by sliding the battery door release toward the center of the door, and open the battery door.



2. Orient the battery so that the two contacts on the battery will be face down, and will correspond with the two contacts inside the printer's battery compartment, and set the battery into the compartment. A label showing this orientation is also located inside the battery compartment.
3. Close the battery door and slide the Battery Door Releases back to the locked position.

## Charging the Battery

Insert the AC adaptor plug into the printer. The Yellow/Amber charging indicator will illuminate indicating that the battery is being charged.

After about 180 minutes the indicator will go off and the battery will be fast charged.

**Note:** You must charge the battery for 24 hours prior to the first use. Maximum battery capacity is reached after completing a minimum of three normal usage charge and discharge cycles.

## Attaching The Belt Loop System

The belt loop system consists of two parts:

- A knob located on the back part of the printer just above the battery door
- A belt loop strap with a click on connector

After sliding your belt through the strap of the belt loop:

- Insert the knob located on the bottom of the printer into the slot of the belt loop connector.
- Pull down on the printer until you hear a click. The printer is now secure and can safely hang down beside your hip.
- To release the printer, press in on the two latches on the sides of the connector and pull the printer and knob up and clear of the slot.

**Note:** Do not force or pull the printer from the connector without pressing in on the two latches.



# Operation

## Media Loading

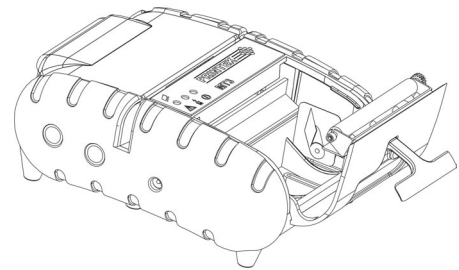
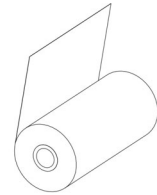
The printer can print text, bar codes and some limited graphics on thermal receipt paper. See “Media Specifications” for the width, thickness requirements and approved vendors.

Follow these steps to load printer paper:

1. Open the paper supply door by placing your fingers under the “T” pull lever and pulling up firmly on the supply cover until the lever stops moving.

**Note:** Do not pull too hard. Use enough force to allow the cover to unlock and lift freely

2. Place the paper supply roll into the paper supply well. Make sure the paper supply unwinds from the bottom as shown.
3. Position the paper supply between the print head guides.
4. Make sure some supply (2-3 inches) extends beyond the top of the paper supply well.
5. Close the paper supply door.

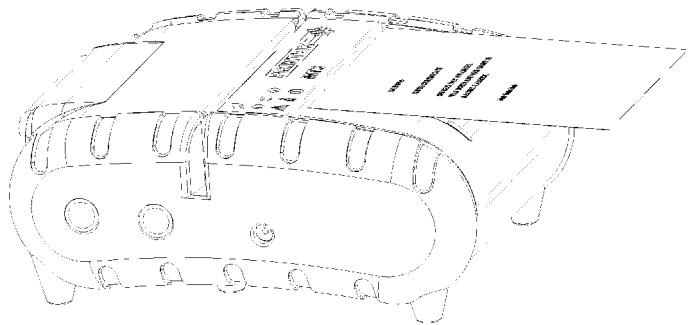


## Tearing Off Print Job

The printer’s paper supply door acts as a tear bar. Pull one edge of the paper against the tear bar as shown below, then tear down and across against the tear bar to remove receipts.

Using the tear bar is the only way to tear the paper. Pulling up and pulling sideways without using the tear bar may cause the paper door to open and the paper roll to fall out.

**Caution:** The tear bar may have sharp edges.

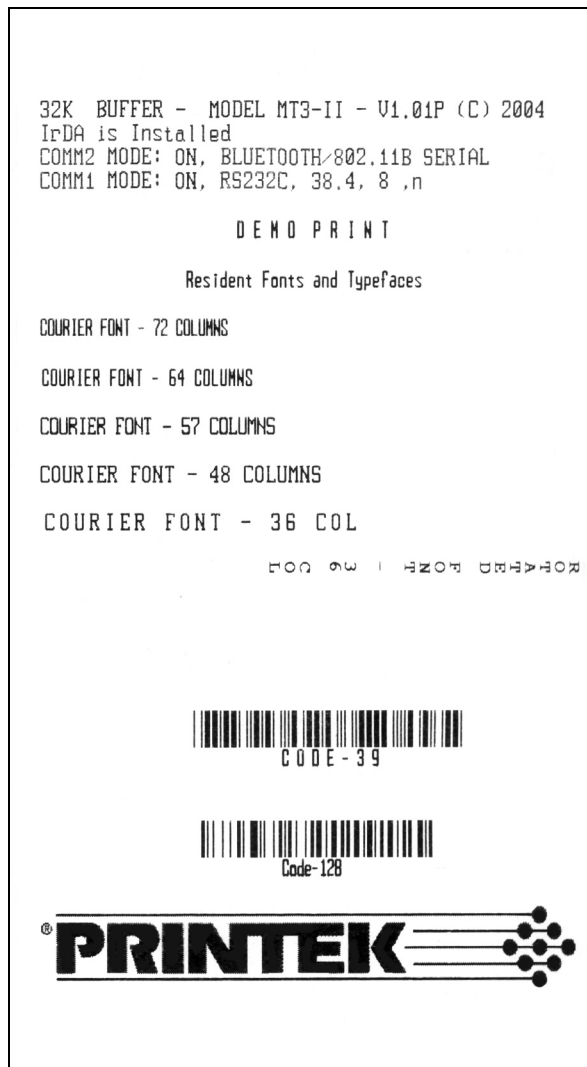


## Initial Power Up And Self-Test

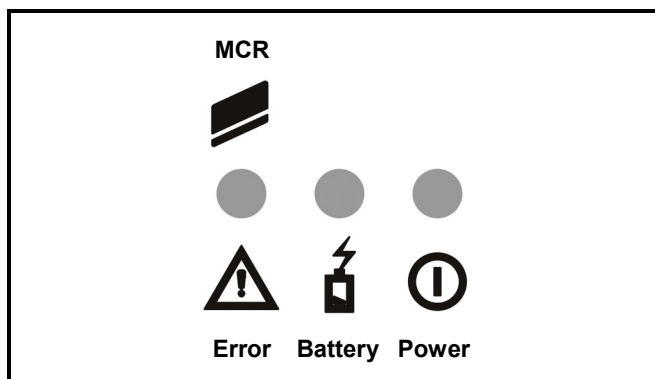
Once the Battery is charged and the paper is loaded, perform an initial power up self-test.





1. To start the self-test, press and hold the FEED button, then press ON . The printer will start printing the self-test messages.
2. Press the OFF or FEED to stop or cancel the self-test print.

The first few lines of self-test show the printer firmware version, the current printer settings and a list of any optional or special features installed. Also, sample lines are printed using the printer resident fonts and bar codes.



## Reading the Indicator Status

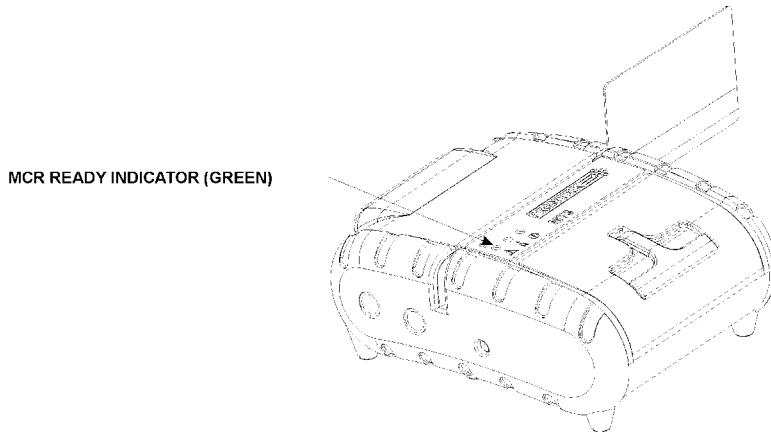


Indicator	State	Status
Power: 	Green	Printer is on and ready to receive data via the RS-232C port or the IrDA interface. When using RS-232C, pressing the On/Off button will turn the printer on. After approximately 20 seconds, if no instructions are sent, the printer will automatically turn off to conserve battery life. When using IrDA, the printer will stay on all the time. Pressing the On/Off button again will turn the printer off.
	Blue	Printer is on and ready to receive data via either the Bluetooth or Wi-Fi interface (optional).
	Yellow	Low power. Battery needs to be recharged.
Battery: 	Yellow	The battery charger is charging the battery at a fast rate. If the battery is below 5.0V, the battery is being “trickle” charged until the battery voltage reaches 5.0V, and then the fast charge rate is started. The indicator will turn Off when the battery is fully charged.
Error / MCR:  / 	Green	MCR is ready to accept data.
	Red	Red Indicates a fault condition or a printer error. The printer is not ready to accept data. Refer to the troubleshooting guide to determine error or fault condition.

## Using the Magnetic Card Reader (MCR)

The Magnetic Card Reader is a factory-installed option. This option requires special application software to read and process cards with a magnetic stripe, such as credit cards or driver's licenses.

Refer to the following figure if your printer is equipped with the optional magnetic stripe reader and the application software asks for the card to be read. Quickly swipe the card through the reader either left to right or right to left. The magnetic stripe must be facing as shown in the picture below.



The DUAL Green/Red indicator on the printer indicates the following:

MCR Indicator	Status
Green	Ready/waiting for card to be swiped.
Red	Error reading card's data.
OFF	Good swipe. Card's data read, or not ready for card to be swiped.



# Configuration and Data Connectivity

The standard Mt3-II Series printer supports both Serial RS232 and IrDA compatible infrared communication interfaces.

Serial and IrDA communication settings can be changed via configuration switches located in the paper supply area (see figure below).

The functions assigned to these switches are shown on the next page.

If the Serial interface is selected, the communication parameters Baud Rate, Data Bit and Parity must be set.

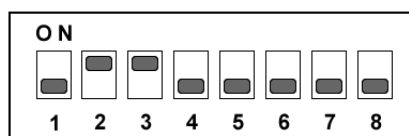
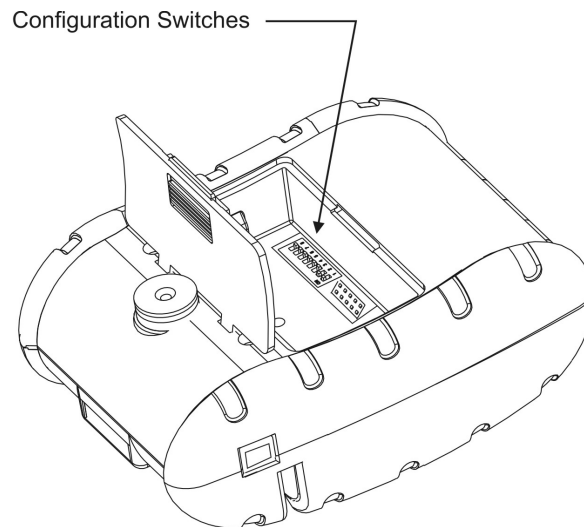
An optional serial cable is available for Serial RS232 communication (part #91251 for DB9 terminated, part #91252 for unterminated).

Printer drivers for Windows 95/98/NT/2000 and XP are available from Printek.

PrinterCE print control utility is available from Printek for Windows CE and Pocket PC 2002 devices. Demo software is available from [www.fieldsoftware.com](http://www.fieldsoftware.com). and details on use are available from Printek.

Printboy from Bachmann is recommended for Palm devices. Demo software is available from [www.bachmannsoftware.com](http://www.bachmannsoftware.com). and details on use are available from Printek.

## Configuration Switches



Switches 2 & 3 Shown In ON Position

<b>Switch Position(s)</b>		<b>Function</b>
<b>SW1</b>		<b>IrDA Interface</b>
OFF		Disabled
ON		Enabled
<b>SW2</b>		<b>RS-232C Interface</b>
OFF		Enabled
ON		Disabled
<b>SW3</b>		<b>Bluetooth/Wi-Fi Interface</b>
OFF		Disabled
ON		Enabled
<b>SW4</b>	<b>SW5</b>	<b>Baud Rate</b>
OFF	OFF	38,400
OFF	ON	19,200
ON	OFF	9,600
ON	ON	2,400
<b>SW6</b>	<b>SW7</b>	<b>Parity</b>
OFF	X	No Parity
ON	OFF	Even Parity
ON	ON	Odd Parity
<b>SW8</b>		<b>Reserved</b>

**Mt3-II Configuration Switch Assignments**

**Note:** Be careful when changing switch settings. Carefully use a pointer on the lever of the switch you wish to change. DO NOT use a lead pencil as this may contaminate the switch. DO NOT use a screw driver or apply excessive force.

## Serial RS232C Communication

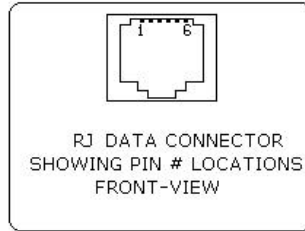
The RS232C Interface signals for the Mt3-II Series printer are terminated on a 6 PIN RJ type data connector located on the side of the printer.

Six connections are provided from the Serial Interface to the host computer. The table below lists the Serial Interface signals and pin outs on the RJ connector. A drawing showing the connector pin locations is also provided.

The configuration switches SW1, SW2, and SW3 should all be set to OFF. Also the settings for the Baud Rate, and Parity (SW4-7) must be set to match the host device settings.

### Required Switch Settings

SW1	OFF
SW2	OFF
SW3	OFF
SW4	Match Host
SW5	Match Host
SW6	Match Host
SW7	Match Host



PIN #	FUNCTIONAL DESCRIPTION	SIGNAL NAME
1, 5	Logic common	COM
2	RS232 from Printer (OUTPUT)	TXD
3	RS232 from Host (INPUT)	RXD
4	Clear to send from Printer (OUTPUT)	CTS
6	Request to send from Host (INPUT)	RTS

**RS-232C Serial Connector & Pin Assignments**

## IrDA Communication

All Mt3-II Series printers are equipped with an IrDA interface. IrDA provides for wireless connectivity, but does require a “line of sight” alignment between the host computer and the IrDA window on the printer.

### Required Switch Settings

SW1 ON  
SW2 ON  
SW3 OFF  
SW4 OFF  
SW5 OFF  
SW6 OFF  
SW7 OFF

## Bluetooth Wireless Data Communication

Mt3-II printers equipped with the optional Bluetooth Interface can communicate with a host that is compatible with the Bluetooth wireless communication standard.

The Bluetooth data link functions wirelessly like IrDA, with the important exception that no effort is required to physically align the host and printer in any particular fashion. If your printer is configured to use Bluetooth, simply send the job from the host and tear off the output – no other action is required.

### Required Switch Settings

SW1 OFF  
SW2 ON  
SW3 ON  
SW4 OFF  
SW5 OFF  
SW6 OFF  
SW7 OFF

Please refer to your host system’s documentation for information on how to set it up to communicate with the printer.

## Wi-Fi Communication

Mt3-II printers equipped with the optional Wi-Fi Interface can communicate with either a host or a network that is compatible with the 802.11b wireless communication standard.

The following tables show the required settings for the configuration switches and the default network and wireless settings when the printer is shipped from the factory.

### Required Switch Settings

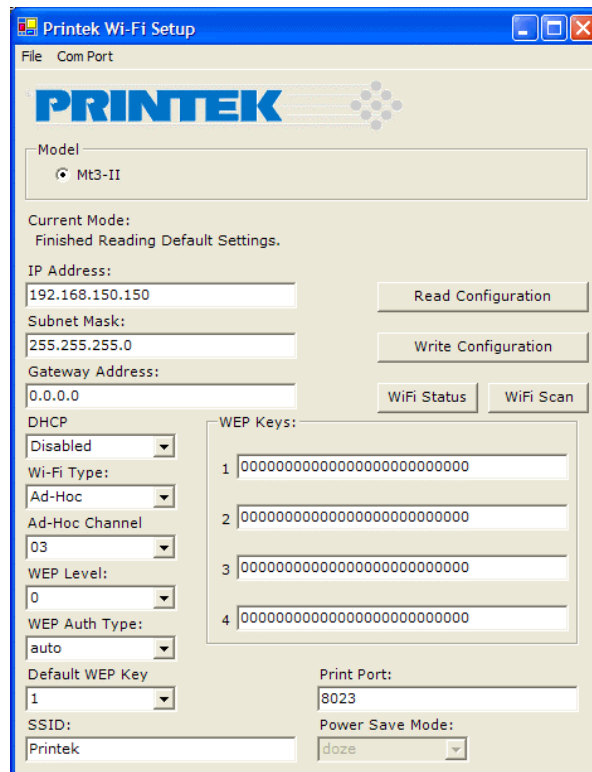
SW1	OFF
SW2	ON
SW3	ON
SW4	OFF
SW5	OFF
SW6	OFF
SW7	OFF

### Default Network & Wireless Settings

IP Address:	192.168.150.150
Subnet Mask:	255.255.255.0
Gateway Address:	0.0.0.0
DHCP:	Disabled
Wi-Fi Type:	Ad-Hoc
Add-Hoc Channel:	3
WEP Level:	0 (Disabled)
SSID:	Printek
Print Port:	8023

To make changes to the network and/or wireless configuration, a Wi-Fi Setup utility is available. This utility may be loaded onto a Windows desktop system and communicates with the printer via the RS-232 Serial port. This utility is available on the *Mt Series Developer's CD* or may be downloaded from [www.printek.com](http://www.printek.com). A screen shot of this utility is shown below. Please follow the instructions provided with the utility.

**Note:** This utility requires the use of an optional serial cable – Printek part number 91251.



Wi-Fi Set Up Utility

## Programming Information

This section lists the printer control command strings. Refer to the *Mt Series Programmer's Manual* for complete details. Further information for developers is available on the *Mt Series Developers CD-ROM*.

### ASCII Control Characters

Character	Hex / Dec	CONTROL ACTION
EOT	04 / 04	End Of Text
BS	08 / 08	Back Space
HT	09 / 09	Horizontal Tab
LF	0A / 10	Line Feed
VT	0B / 11	Vertical Tab
FF	0C / 12	Form Feed
CR	0D / 13	Carriage Return
SO	0E / 14	Shift Out
SI	0F / 15	Shift In
XON	11 / 17	Transmitter On.
AUXON	12 / 18	Printer on.
XOFF	13 / 19	Printer receiver is off
NORM	14 / 20	Return to default 42 column mode
AUXOFF	15 / 21	Printer to Host: printer is off
CANCEL	18 / 24	Cancel and reset printer BUFFER
ESC	1B / 27	Escape
EXTEND	1C / 28	Extended print
EXTEND OFF	1D / 29	Extended print off/Normal print

### Printer Font Commands – Courier Character Set

Font Name	Character size (WxH)	Command String
24 CPI normal	8x21	ESC k 5
21 CPI normal	9x21	ESC k 4
19 CPI normal	10x21	ESC k 3
16 CPI normal	12x21	ESC k 2
12 CPI normal	16x21	ESC k 1
13 CPI rotated	14x16	ESC k 0

### Printer Font Commands

Command String	Printer Action
ESC F 1	Selects "International" character set
ESC F 2	Selects "PC Line Draw" character set
ESC U 1	Enable emphasized print
ESC U 0	Disable emphasized print

## Printer Graphic Commands

Printer Command String	Printer Action
ESC a <i>n</i>	Select dot line spacing between printed lines.
ESC J <i>n</i>	Graphic Line Feed command
ESC P #	Select Online mode, characters printed as received
ESC P \$	Select Buffer mode, characters are printed on (^D)
ESC V <i>n1 n2 data</i>	8-bit Graphic command
ESC v <i>n1 n2 data</i>	8-bit Compressed Graphic Command

## Magnetic Card Reader Control Commands

Printer Command String	Printer Action
ESC M <i>nm</i> CR	Select MCR with <i>nm</i> auto timeout..
ESC C	Cancel MCR read process.

## Graphic Logo and Bar Code Commands

Command String	Printer Action
ESC L G <i>n</i>	Prepare printer to load image
ESC G 0x0FF	Loading Logo Complete
ESC L g <i>n</i>	Print stored logo image
ESC z <i>n1 n2 L data</i>	Print Bar Code without visible text
ESC Z <i>n1 n2 L data</i>	Print Bar Code with visible text
ESC Q J <i>n</i>	Reverse Dot Feed
ESC Q Q <i>n</i>	Set Out of Paper Sensitivity
ESC Q F <i>m</i>	Set Forward Black Mark Seek
ESC Q B <i>m</i>	Reverse Black Mark Seek

## Printer Supervisory and Control Commands

Command String	Printer Action
^V	Buffer, power timer & battery status
^B	Buffer status
ESC P ^	Print Battery Voltage
ESC P <i>alpha</i>	Time and date print and control
ESC M 000 CR	Disable the power down timer
ESC M <i>nn</i> 0 CR	Sets the power down timer to <i>nn</i> seconds
ESC M C	Reset Auto power down to 20 seconds
ESC P (	Firmware version query
ESC P )	Hardware model query

## Resident Character Sets

Characters 32 through 255

ESC 6 for International & ESC 7 for PC Line Draw

	!	"	#	\$	%	&	'	(	)	*	+	,	.	/	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	
@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
Ç	ü	é	â	ä	à	ç	ê	ë	è	ì	î	ï	ñ	ä	é	æ	ø	ö	ö	ù	ü	ÿ	ö	ü	ø	£	Ø	×	f		
á	í	ó	ú	ñ	ñ	º	¿	↑	↓	¼	½	¾	¿	«	»	§	§	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶
Φ	Ψ	α	Υ	δ	ε	ã	ÿ	η	θ	κ	λ	ε	σ	ς	τ	ν	Ê	Ë	È	Ψ	Í	Î	Ï	ω	ά	έ	ή	ώ	ì	□	
Ó	β	Ô	Ò	õ	Õ	μ	ρ	↓	¹	Ù	Ú	Ý	Ý	ú	ß	±	β	∞	Ω	Σ	Π	f	♥	♦	♣	♠	÷	■			

International Character Set

	!	"	#	\$	%	&	'	(	)	*	+	,	.	/	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?	
@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
Ç	ü	é	â	ä	à	ç	ê	ë	è	ì	î	ï	ñ	ä	é	æ	ø	ö	ö	ù	ü	ÿ	ö	ü	ø	£	Ø	×	f		
á	í	ó	ú	ñ	ñ	º	¿	↑	↓	¼	½	¾	¿	«	»	§	§	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶	¶
ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ	ˆ
Ó	β	Ô	Ò	õ	Õ	μ	ρ	↓	¹	Ù	Ú	Ý	Ý	ú	ß	±	β	∞	Ω	Σ	Π	f	♥	♦	♣	♠	÷	■			

PC Line Draw Character Set





# Printer Maintenance and Troubleshooting

## Cleaning

You may need to clean the print head and platen roller after printing a number of rolls of paper, whenever you load new supplies or when you see voids in the printout.

**Caution:** Do not use sharp objects to clean the print head. This may damage the printer and require service.

- Open the paper supply door by placing your fingers under the “T” pull-handle and pulling up firmly.
- Remove the paper supply roll.
- Use a print head cleaning pen (Printek 91393) and clean the print head. If a cleaning pen is not available, use a cotton swab moistened with isopropyl alcohol.
- Clean the platen roller located on the paper supply door with a dry cloth or small brush. You can also use the print head cleaning pen. Turn the platen roller with your finger and run the pen or dry cloth across it. Make sure the platen roller is clean all the way around.
- Use the cleaning pen to clean the black mark sensor on the print head to remove any build-up.
- Clean the tear bar to remove any build-up.
- If the printer has a magnetic card reader installed, clean it using a MCR Cleaning Card (Printek 91394).

You may experience dust build-up depending on the environment and the quality of the paper supply you use. If this occurs, use a can of compressed air to blow dust and paper debris out of the printer.

## Charging The Printer Battery

The printer battery may be charged using either an AC adapter or a DC in-vehicle adapter. Follow these steps to charge the battery pack:

1. Plug the power adapter into an appropriate wall socket; then plug the power adapter cord into the power connector on the side of the printer.
2. The yellow Charge indicator will illuminate to show the battery is charging.
3. The Charge indicator turns off when battery cartridge is fully charged. It takes up to 180 minutes to fast charge the battery pack.
4. To insure full charge, printer should not be operated while the battery is charging.

### Important Notes On Charging The Battery

- The battery fast-charge is initiated each time the power adapter is connected to the printer.
- The fast-charge controller checks the battery's voltage and temperature, before the start of the fast recharge process. If the battery voltage or the temperature is outside of the fast-charge limits, the charger defaults to trickle charge at C/10 or 70mA rate.
- An optional external charger is also available.

## Verifying Battery Charge State

Follow these steps to identify and correct any battery power problem encountered. It is strongly recommended testing all printers before returning to Printek. These will help to identify that the fault is with the printer and not some other part of your system.

To test the AC adaptor use a multi-meter and measure the output. The output should be 10VDC.

1. Press the OFF switch and wait until all indicators are off.
2. Insert the AC adaptor plug into the printer. If the amber battery indicator goes on and remains on, the battery is not fully charged, but the charge circuit is functioning. If the indicator goes on and then turns off after a few seconds, the battery is already fully charged. In either case, the AC power portion of the circuit appears to be ok.
3. Press and hold the FEED switch, then press and release the ON switch.
4. The printer will print a "self test" receipt. If the self- test receipt is printed, the DC power is ok.
5. Press OFF and wait until all the indicators are off.

If the amber indicator is on, this will continue on through this test indicating that the battery is accepting a charge and that the charge circuit is ok. At the end of a 180 minute charge cycle the indicator will go off.

## Troubleshooting

### Printek Mt3-II Troubleshooting Guide

Problem	Possible Cause	Solution
Printer will not turn on	Discharged battery	Recharge battery overnight
“Battery Charging” indicator not lighting when AC Adaptor is plugged in	No AC power or bad AC adaptor	Check AC outlet and Adaptor.
Battery not charging, or indicator turns off after a few seconds	Battery incorrectly installed or no AC	Check battery installation and AC adaptor.
	Fully charged battery pack	No action required.
Poor print quality	Low battery	Check or recharge the battery
	Print head is dirty	Clean the print head
Paper not feeding	Obstruction in paper path	Check the paper path. Use correct thickness paper.
	Paper not installed properly	Verify installation.
Error/MCR indicator lit RED	Print mechanism jam	Clear the paper path.
	Error reading MCR	Magnetic stripe on card must be facing toward the paper supply door.
	No Paper	Load Media.
Prints illegible characters	Improper Baud rate and parity	Verify the printer and Host setting match. Use test print to verify printer setting. In MS-DOS use “write direct to port”. In Windows, use generic printer driver, print manager, and direct write to port.
Printer will not print	Discharged or defective battery	Check and/or replace the battery.
	Paper not loaded correctly	Make sure the paper is loaded correctly, not backwards.
	Communications not set correctly	Verify communications between the host device and the printer by performing a printer self test

## Obtaining Service

If service is required for your printer, please contact the company where you purchased your printer. If they are unable to assist you, contact Printek Customer Service at (800) 368-4636 to obtain the name of the nearest Printek Authorized Service Center.

If you wish to return your printer to Printek for service, please contact Printek Customer Service at (800) 368-4636 to obtain a Return Authorization Number. Units returned without a Return Authorization will not be accepted.



# Printer Specifications

Height:	2.25 inches (57mm)
Width:	4.25 inches (108mm)
Length:	6 inches (152mm)
Weight: w/battery & supply	1.3 lbs. (0.61 kg)
Shipping weight:	3 lbs. (1.4 kg)
Power:	7.4 V Li-Ion (2200mAH) battery
Operating Temp. Limits:	41 - 104°F (5 - 40°C)
Storage Temp. Limits:	-4 - 140°F (-20 - 60°C)
Operating Humidity Limits:	20% to 85% non-condensing
Storage Humidity Limits:	5% to 95% non-condensing
Print head:	3 inches wide (80mm) 203 dpi (8 dots per mm)
Printing Method:	Thermal Direct
Print Speed:	Up to 2.0 inches per second
Supported Bitmap Fonts:	Standard (normal and bold) Large (normal) Reduced (normal and bold) Large rotated.
Supported Bar Codes:	Codabar, Code 39, UCC/EAN – 128, UPC/EAN/JAN, Interleaved 2 of 5, Code 128
Memory:	32K SRAM, 32K Program Flash, 224K Fonts and Logos Flash
Charging Time:	Approximately 180 minutes
Communications:	RS-232 and IrDA (Standard) Bluetooth or Wi-Fi (Optional)
Print Ratio:	25% black maximum/sq. in.

## Media Specifications

Media type:	Thermal direct receipt paper
Thickness:	2.2 to 3.5 mils (receipt paper)
Width:	3.125 inches (80mm)
Length:	1 roll of receipt paper is approximately 44 feet (13.4 M)
Sensing compatible:	Black mark (on face of supply)
Paper roll diameter:	Outside: 1.375 inches (32 mm) Inside: .25 inches (6mm)
Maximum Print Area:	2.85 inches (72 mm) Wide by 8.0 inches (203mm) Long
Approved Vendors:	Kansaki: P300, P310, P350, P354, P390, P530UV, TO281CA, OP200, TO381N, F180, F380, F550 Jujo: TF-50KS-E2C Honshu: FH65BV-3

## **Printer Supplies & Accessories**

<b>Part Number</b>	<b>Description</b>
91254	Paper 35-Pack
91304	Battery (Li-Ion, 2200mAH)
91308	Battery (Li-Ion, 2200mAH) – 5-Pack
91309	Battery (Li-Ion, 2200mAH) – 20-Pack
91393	Print Head Cleaning Pen (Box of 12)
91394	MCR Cleaning Card (Box of 50)
91247	120VAC Power Adapter
91334	240VAC Power Adapter
91260	12VDC Power Adapter
91264	24VDC Power Adapter
91311	Two-Bay Trickle Charger
91250	Belt Loop System
91305	Environmental Case
91261	Shoulder Strap
91251	Coiled Serial Cable – DB-9
91252	Coiled Serial Cable – Unterminated
–	Operator’s Manual – Download from <a href="http://www.printek.com">www.printek.com</a>
–	Programmer’s Manual – Download from <a href="http://www.printek.com">www.printek.com</a>
–	Windows 95/98/NT/2000 Printer Drivers – Download from <a href="http://www.printek.com">www.printek.com</a>
–	Windows CE PrinterCE Utility – Download from <a href="http://www.fieldsoftware.com/PrinterCE.htm">www.fieldsoftware.com/PrinterCE.htm</a>
–	PalmPrint Utility – Download from <a href="http://www.stevenscreek.com/pilot/download.html">www.stevenscreek.com/pilot/download.html</a>
–	PrintBoy for Palm OS – Download from <a href="http://www.bachmannsoftware.com/downloads.htm">www.bachmannsoftware.com/downloads.htm</a>
–	PrintBoy for PocketPC – Download from <a href="http://www.bachmannsoftware.com/downloads.htm">www.bachmannsoftware.com/downloads.htm</a>

## **Warranty**

This printer is warranted by Printek, Inc. to be free of defects in parts and workmanship for a period of one year from date of shipment, or two years if only Printek brand media is used. This warranty does not apply to defects resulting from action of the user such as misuse, improper wiring, operation outside of specification, improper maintenance or repair, or unauthorized modification. Printek specifically disclaims any implied warranties of merchantability or fitness for a specific purpose and will not be liable for any direct, indirect, special, incidental or consequential damages. Printek’s total liability is limited to the repair or replacement of the product. The warranty set forth above is inclusive and no other warranty, whether written or oral is expressed or implied.

### **Obtaining Warranty Service**

You may have your printer repaired by a Printek Authorized Service Center or by Printek.

To find a service center near you, please contact Printek Customer Service at 269-925-3200.

If you wish to return your printer to Printek for repair, you must first obtain a Return Authorization number and write that number on the outside of the shipping carton. Printers returned without a Return Authorization number will not be accepted. The customer is responsible for ensuring that the printer is properly packaged to prevent damage in transit.

Printek will repair the unit and return it via ground transportation. The customer may elect a faster mode of transport at their cost.

# Glossary of Terms

802.11	Wireless networking communication standards created by IEEE.
access point	An interface between a wireless network and a wired network.
Ad-Hoc	A Wi-Fi network consisting of only stations (no access point). Same as Peer-to-Peer.
ASCII	American Standard Code for Information Interchange.
authentication	The process a Wi-Fi station uses to identify itself to another station.
bandwidth	The amount of data that be transferred in a given period of time.
baud rate	The rate at which characters are transmitted over a serial interface. This is also often referred to as bits per second.
binary	Base two numbering system. Digits are represented by the characters 0 and 1.
bit	A single binary digit.
Bluetooth	A definition for short range radio frequency communications.
client	Any node on a network that requests services from another node (server).
control code	A single, non-printing character which is used to control the configuration or operation of the printer.
character pitch	The horizontal spacing of characters. Measured in cpi.
cpi	Characters per inch.
current line	The line upon which the next character will be printed.
current print position	The column on the current line where the next character will be printed.
default	Value or configuration assumed when the printer is powered on or reset.
DHCP	Dynamic Host Configuration Protocol. A method used to centrally control the assignment of IP addresses on a network.
dpi	Dots per inch. Generally used to refer to graphics density or resolution.
escape sequence	String of characters beginning with the escape (ESC) character which is used to control the configuration or operation of the printer. The characters which are part of this string are not printed.
font	A group of characters of a given shape or style.
hexadecimal	Base sixteen numbering system. Digits are represented by the characters 0 through 9 and a through f.
IEEE	Institute of Electrical and Electronic Engineers
infrastructure	A Wi-Fi network consisting of stations connecting to a wired network or other stations via an access point.
interface	The connection between the printer and the host computer.

## Glossary of Terms

---

IP	Internet Protocol. A specification for packets, or datagrams, of data and an addressing method to allow the exchange of data with another system. Must be combined with another protocol such as TCP to create a complete connection with the other system.
LAN	Local Area Network.
LED	Light emitting diode.
line pitch	The vertical spacing of rows of characters. Measured in lpi.
lpi	Lines per inch.
margin	An area along any edge of a form where data may not be printed.
MSB	Most significant bit. In a character, this refers to bit seven (of 0 to 7).
node	Any device connected to a network.
parity	A method used for detecting errors within a single character transmitted or received via an interface.
Peer-to-Peer	A network consisting of only stations (no access point or central server). Same as Ad-Hoc.
reset	Initialization of various operating parameters of the printer to the value or state assumed when the printer is powered on.
RS-232C	An EIA standard for serial data transmission.
server	Any node on a network that provides services to another node (client).
SSID	Service Set IDentifier. An identifier attached to packets on a Wi-Fi network that identify the particular network the packets are intended for.
TCP	Transmission Control Protocol. A specification that controls the connection between systems on a network.
WAN	Wide Area Network. Refers to connections that allow one LAN to communicate with another LAN(s).
WEP	Wired Equivalent Privacy. A security protocol for wireless LANs designed to provide data security similar a wired LAN.
Wi-Fi	Refers to any of the IEEE 802.11 standards.
WLAN	Wireless Local Area Network. A LAN made up of wireless nodes.





