

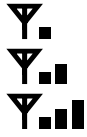

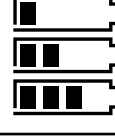
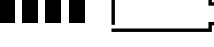





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Troubleshooting

LCD Control Panel

The top of the display shows icons indicating the status of various printer functions. Check the icon's status and refer to the referenced Troubleshooting topic on the following pages.

Icon	Status	Indication	Ref. to Troubleshooting Topic
	On	Bluetooth link established	n/a
	Off	No Bluetooth link	6,8
	On	802.11b/g RF Link established	n/a
	Off	No 802.11b/g RF Link	6,8
		Number of bars indicates 802.11g signal strength	n/a
	Outer icon element flashing	Low Battery	4, 6,
		Number of bars indicates battery charge level. Display will cycle through the battery icons if it is undergoing a charge from the AC Adapter.	n/a
	Flashing	Battery too hot or too cold to charge	2
	Flashing	Out of Media	9
	Flashing	Ribbon Cartridge depleted	9
	Flashing	Data transfer in process	n/a
Blank Screen	n/a	Battery voltage too low to turn printer on or no application loaded	1,14

Troubleshooting Topics

1. No power:

- Check that battery is installed properly.
- Recharge or replace battery as necessary.
- If the battery voltage is outside of the range at which the printer will turn on and the AC Adapter is plugged into printer, the printer will not turn on. The battery will start to charge, but the user will have no indication that the battery is charging. When the battery reaches a valid operating voltage range, the printer will still not turn on unless the user manually turns it on, or unplugs and re-plugs the charge cable.

2. AC Adapter is plugged in and the battery icon is alternately flashing and .

- Indicates that the battery is out of its safe charging temperature range. Charging will resume when the battery reaches a safe charging temperature.

3. Media does not feed:

- Be sure printhead is closed and latched.
- Check media support components for any binding.
- If unit is equipped with label presence sensor, ensure the most recently printed label is removed.
- Ensure label sensor is not blocked.

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Troubleshooting Topics (continued)

4. *Poor or faded print or low battery icon () flashing:*

- Clean printhead.
- Check battery pack. Recharge or replace as necessary.



Always dispose of used battery packs properly. Refer to Appendix E for more information.

- Check quality of media.

5. *Partial/missing print:*

- Check Ribbon Cartridge and/or label media alignment.
- Clean printhead.
- Ensure printhead is properly closed and latched.

6. *No print:*

- Replace battery pack.
- Check cable to terminal.
- Wireless units only: Restore wireless connection.
- Units using Thermal Transfer media: Ensure Ribbon Cartridge has been installed.

7. *Reduced battery life:*

- Check battery pack date code. If battery is one to two years old, short life may be due to normal aging.
- Check printer display. If battery has exceeded a factory set number of charge cycles the printer will display a message that the battery needs re-conditioning or replacing.
- Replace battery pack.

8. or icon off:

- Units with Bluetooth or 802.11g option only: indicates no radio link has been established.

9. or flashing:

- Check that label media is loaded.
- Replace Ribbon Cartridge if depleted.
- Check that the printhead is closed and securely latched.

10. *Skips labels:*

- Ensure correct media is being used.
- Ensure bar/ or gap sensor is not blocked.
- Ensure label design does not exceed actual media length.

11. *Prints “wrinkle pattern” or partial characters:*

- Ensure Ribbon Cartridge has been tensioned prior to installation. Problem will self-correct after printing a few labels.
- Ensure label media tracks properly when emerging from printer. Use the alignment marks on the printer cover to ensure wrinkle

free operation when loading media into the peeler assembly. Correct media alignment if necessary.

12. *Prints multiple “Void” messages:*

- RP4T printers only: Ensure you have installed RFID media. Printer cannot verify RF encoding on non-RFID media and will print “Void” on a pre-set number of labels before stopping.

13. *Communication Error:*

- Check media is loaded, head is closed and all error indicators are off.
- Replace cable to terminal.

14. *Screen blank*

- No application loaded. Attempt to re-load application and restart printer.
- No power. See Topic “1” of this section.

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Troubleshooting Techniques

Printing a Configuration Label

To print out a listing of the printer's current configuration follow these steps:

1. Turn the printer off. Load the media compartment with journal media (media with no black bars printed on the back)
2. Press and hold the Feed Button.
3. Press and release the Power button and keep the Feed button pressed. When printing starts, release the Feed button.
4. The printer will create two reports. The first report is a basic functional test of the printer. It prints a series of interlocking "X" characters which acts as a test of the printhead elements and reports on basic features of the printer including memory installed.

The second report is a detailed list of the printer's configuration, including any options installed (such as radios) and current status of system settings.

Refer to Figures 18.1 through 18.2 for a sample configuration label printout.

Performing a Forced Shutdown

If the printer has locked up and is not responding to any operator inputs or external commands, from either a connected terminal or a linked LAN, you can perform a forced shutdown.

- If the printer software locks up during normal operation, force the printer to shut down by pressing and holding the Power Button for 3 seconds.
- If you try to turn the printer off normally and the software locks up, the printer will automatically shut itself off after a 10 second delay.
- If you try to turn the printer off and it does not respond, you can force an immediate shut down by pressing and holding the Power Button again within 10 seconds.

A forced shutdown will preserve the printer's data and settings.

Communications Diagnostics

If there's a problem transferring data between a terminal or WLAN, placing the printer in the Communications Diagnostics Mode (also referred to as the "DUMP" mode) will allow diagnostic analysis. The printer will print transmitted data as ASCII characters and their text representation (or a period "." if not a printable character) for any data received from the host terminal or network

To enter Communications Diagnostics Mode:

1. Print a configuration label as described above.
2. At the end of 2nd diagnostics report, the printer will print:

"Press FEED key to enter DUMP mode."

3. Press the FEED key. The printer will print: "Entering DUMP mode."



Note • If the FEED key is not pressed within 3 seconds, the printer will print "DUMP mode not entered" and will resume normal operation.

4. At this point, the printer is in DUMP mode and will print the ASCII hex codes of any data sent to it, and their text representation (or "." if not a printable character).

Additionally, a file with a ".dmp" extension containing the ASCII information will be created and stored in the printer's memory. It can be viewed, "cloned" or deleted using the Label Vista application. (Refer the Label Vista documentation for more information.)

To terminate the Communications Diagnostics Mode:

1. Turn the printer OFF.
2. Wait 5 seconds.
3. Turn the printer ON.

The printer will resume normal operation.

Calling Technical Support

If the printer fails to print the configuration label, or you encounter problems not covered in the Troubleshooting Guide, contact Zebra Technical Support. You will need to supply the following information:

- Model number/type (e.g. P4T, RP4T)
- Unit serial number (14 digit number, including dashes) and Product Configuration Code (PCC) (15 digit number, including dashes). Refer to Appendix D for the location of these numbers.
- Technical support contact information may be found in Appendix D of this manual.

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Figure 18.1- P4T Series Configuration Label Sample



Print Head Test

Zebra P4T V90.16 04/24/08
 CHK: 836E XXP208-16-5044
 S3P49016A12
 Build Date Apr 24 2008 15:28:00
 RELEASE BUILD
 Testing Memory...
 Memory tested and OK
 Baud Rate: 115200 BPS
 In-activity Timeout: 0 Secs
 Low battery Shut-down: 174

End of First Report

End of report.

First diagnostic report for all P4T Series printers

Zebra P4T V90/11 04/25/08
 Serial Number:

 XXP208-16-5024
 Name: XXP208-16-5024
 Program:
 Firmware: S3P49016A12
 Chksum: 836E
 PLD: 0 Rev. 6
 Software: SHSTG P4T 1eP (F)
 Chksum: D2F9
 Ver: L2.R90.16.U293.B23.T21.A11
Cable Communications:
 19200 BPS, N,8,1
 Handshake: hardware
 DSR: 0
 Bridge mode: off
Universal Serial Bus:
 2.0 Full Speed Device
 Vendor ID No: 0a5f
 Product ID No: 008e
 Manufacturer String: Zebra
 Product String: P4T
Wireless Communications:
 Bluetooth:
 .version 2.1.8
 .date 04/25/08
 .baud 115200
 .device printer
 .mode slave
 .local_name XXP208-16-5024
 .authentication off
 .discoverable on
 .encryption off
 .Bluetooth spec 2.0
 .afh_mode off
 .enable on
 .address 00:03:7A:18:CA:48

 00037A18CA48
Network Management:
 Active: none
 Build Date: Apr 3 2008
 Build Time: 13:43:31

Unit Serial Number

Installed software and firmware

Settings for RS232 and USB communications via cable

Wireless Communications section with a Bluetooth radio installed. Units with no wireless options will print an empty line and resume printing.

Manufacturer: Zebra
 Product String: P4T
Wireless Communications:
 TCP: Jan 18 2008 10:57:06
 WLAN Enable: ON
 WWAN Enable: OFF
 IP Address: 0.0.0.0
 Netmask: 255.255.255.0
 Gateway: 0.0.0.0
 MTU: 1522
 TCP/UDP Port: 6101
 Remote Server: 0.0.0.0
 Remote Server Port: 10013
 TCP: ON
 UDP: ON
 LPD: ON
 DHCP: ON
 BOOTP: OFF
 FTP: ON
 HTTP: ON
 SMTP: ON
 POP3: OFF
 SNMP: ON
 TELNET: ON
 Remote Auto-connect: OFF
 UDP Discovery: ON
 DHCP CID type: 1
 VPN: off

Wireless Communications section for a P4T Series with an 802.11 radio installed

Information on TCP/IP and LAN addresses and settings.

PCMCIA/CF Adapter 1.0
 Build Date: Apr 16 2008
 Build Time: 15:51:49

Drivers Installed for
 Symbol 802.11b PC LAN Radio
 Symbol 802.11b CF LAN Radio
 Cisco 802.11b PC LAN Radio
 Symbol 802.11 FH PC LAN Radio
 Zebra 802.11b Embedded Radio
 Zebra 802.11b/g Embedded Radio

Information on any installed 802.11b/g wireless devices. In this example, an 802.11b WLAN card has been detected.

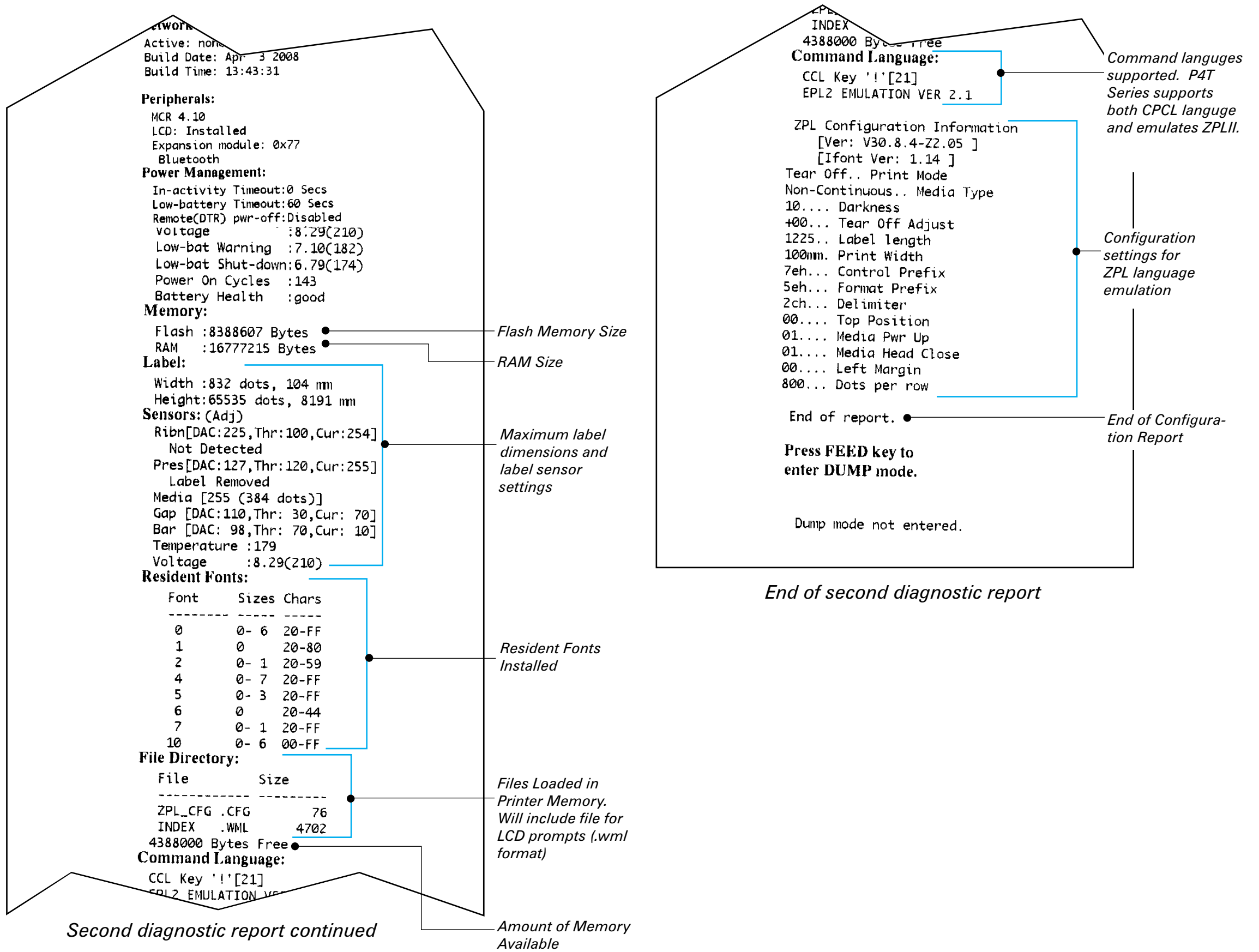
Card Detected.
 Zebra Embedded Radio 802.11 b/g
 MAC Address: 00:02:78:31:cb:12
 Operating Mode: infrastructure
 International Mode: off
 Preamble Length: long
 Power Save: best
 Encryption: off
 Authentication: open system
 LEAP: off
 Encryption Optional: yes
 WPA Mode: off
 Stored ESSID: 247
 Not Associated.

Second diagnostic report for a printer with a Bluetooth radio

Second diagnostic report for a printer with an 802.11b/g radio

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Figure 18.2- P4T Series Configuration Label Sample



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Specifications



Note.- Printer specifications are subject to change without notice.

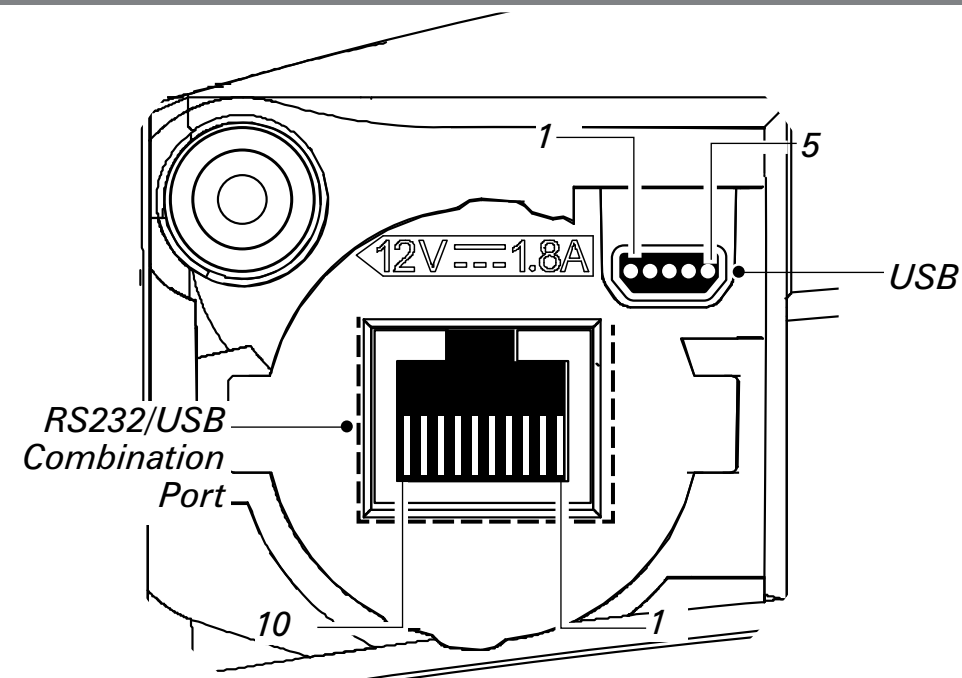
Printing Specifications

Maximum Print Width	4.09 in. [103,8 mm]
Print Speed @ 30% density	2.0 in. /sec. [50,8 mm/second] Direct Thermal mode 1.5 in./sec. [38,1 mm/second] Thermal Transfer mode
Distance from Print Element to Tear Edge	0.39 in. [9,91 mm] 41 dots
Print Head Life	1,000,000 inches (25.4 Km) min.
Print Density	203 dots/inch (8 dots/mm)

Memory/Communications Specifications

Flash Memory	8 MB flash (standard)
RAM Memory	16 MB RAM)
Standard Communications	RS-232C serial port (RJ-45 connector) Configurable Baud rate (from 9600 to 115.2 Kbps), parity and data bits. Software (X-ON/X-OFF) or hardware (DTR/STR) communication handshake protocols. Two USB 2.0 Full Speed Interface connections: (1) a "B" type USB connector, and (2) USB signals are also integrated into the RJ-45 connector. Refer to the Communications Ports specifications and Appendix A for information on USB cables.
Optional Wireless Communications	Bluetooth 2.0 compatible 2.4 GHz SRRF link Wireless LAN capabilities comply with 802.11b or 802.11g protocols Co-located Bluetooth 2.0 + 802.11b/g radios (P4T only)
Real Time Clock (RTC)	Time and date under application control. Refer to CPCL Programming Manual, available at www.zebra.com for RTC commands.

Figure 19- P4T Series Communication Ports



Communications Ports

USB

Signal Pin#	Name	Type	Description
1	VBUS		USB Bus Power
2	USB -	bi-directional	I/O signals
3	USB +	bi-directional	I/O signals
4	USB _ ID		Identifies A/B connector
5	Return		Ground

RS232/USB

Signal Pin#	Name	Type	Description
1	USB D-	bi-directional	I/O signals
2	USB D+	bi-directional	I/O signals
3	RXD	input	Receive Data
4	TXD	output	Transmit Data
5	DTR	output	Data Terminal Ready- set high when printer is on.
6	GND		Ground
7	DSR	input	Data Set Ready- low to high
8	RTS	output	Request To Send- set high when printer is ready to accept a command or data
9	CTS	input	Clear To Send from host
10	VBUS		USB Bus Power

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P4T Series Media Specifications

Media Width	2.0 in. to 4.12 in. (50,8 to 104,6 mm)
Max. continuous receipt (w/std. memory)	Continuous, dependent on installed memory
Inter-label Gap.	0.08 in. to 0.16 in. (0.12 in. preferred)(2 mm to 4 mm [3 mm preferred])
Label Thickness	0.032 in to 0.007" (0,064 mm to 0,165 mm)
RFID Label Thickness (RP4T only)	032 in to 0.007" (.064 mm to .165 mm), Thickness over RFID element- .023 in. [0,58 mm]
Max. Label Roll diameter.	2.25 in. (57 mm) O.D.
Label Inner Core	.75 in. (19 mm) minimum diameter; 1.38 in. (35 mm) RFID Media
Black Mark Dimensions	The reflective media black marks should extend past the centerline of the roll. Minimum mark width: 1.0 in. (25,4 mm) perpendicular to edge of media, centered within the width of the roll. Mark length: 0.094 in. (2,4 mm) parallel to edge of media
Media Requirements	

Use Zebra brand direct or thermal transfer media that is outside wound. Media may be reflective (black mark) sensing, or transmissive (gap) sensing, die-cut, or continuous. P4T Series units configured with the External Media option will accept fanfold media used with an external media supply. For die-cut labels, use only full auto dies.

P4T Series Font and Bar Code Specifications

Linear & 2-D Bar Codes Available	Codabar (NW-7)
	UCC/EAN 128
	Code 39
	Code 93
	EAN 8/JAN 8, 2 and 5 digit extensions
	EAN 13/JAN 13, 2 and 5 digit extensions
	EAN 14/JAN 14, 2 and 5 digit extensions
	Interleaved 2 of 5
	MSI/Plessey
	FIM/POSTNET
	UPC-A, 2 and 5 digit extensions
	UPC-E, 2 and 5 digit extensions
	QR Code
	MaxiCode
	PDF 417
	Aztec
	DataMatrix (using ZPL emulation)
RSS (Reduced Space Symbology®): RSS-14 Truncated RSS-14 Stacked RSS-14 Stacked Omnidirectional RSS Limited RSS Expanded	
TLC-39/Micro PDF	
Rotation Angles	0°, 90°, 180°, and 270°
Fonts Available	Standard Fonts: 25 bit-mapped fonts; 1 scalable (CG Trimvirate Bold Condensed*) Downloadable optional bit-mapped & scalable fonts via Label Vista software International character sets: Chinese 16 x 16 (trad.), 16 x 16 (simplified), 24 x 24 (simplified); Japanese 16 x 16, 24 x 24 Korean Myang 16 x 16 Greek Hebrew/Arabic

**Contains UFST from Agfa Monotype Corporation*

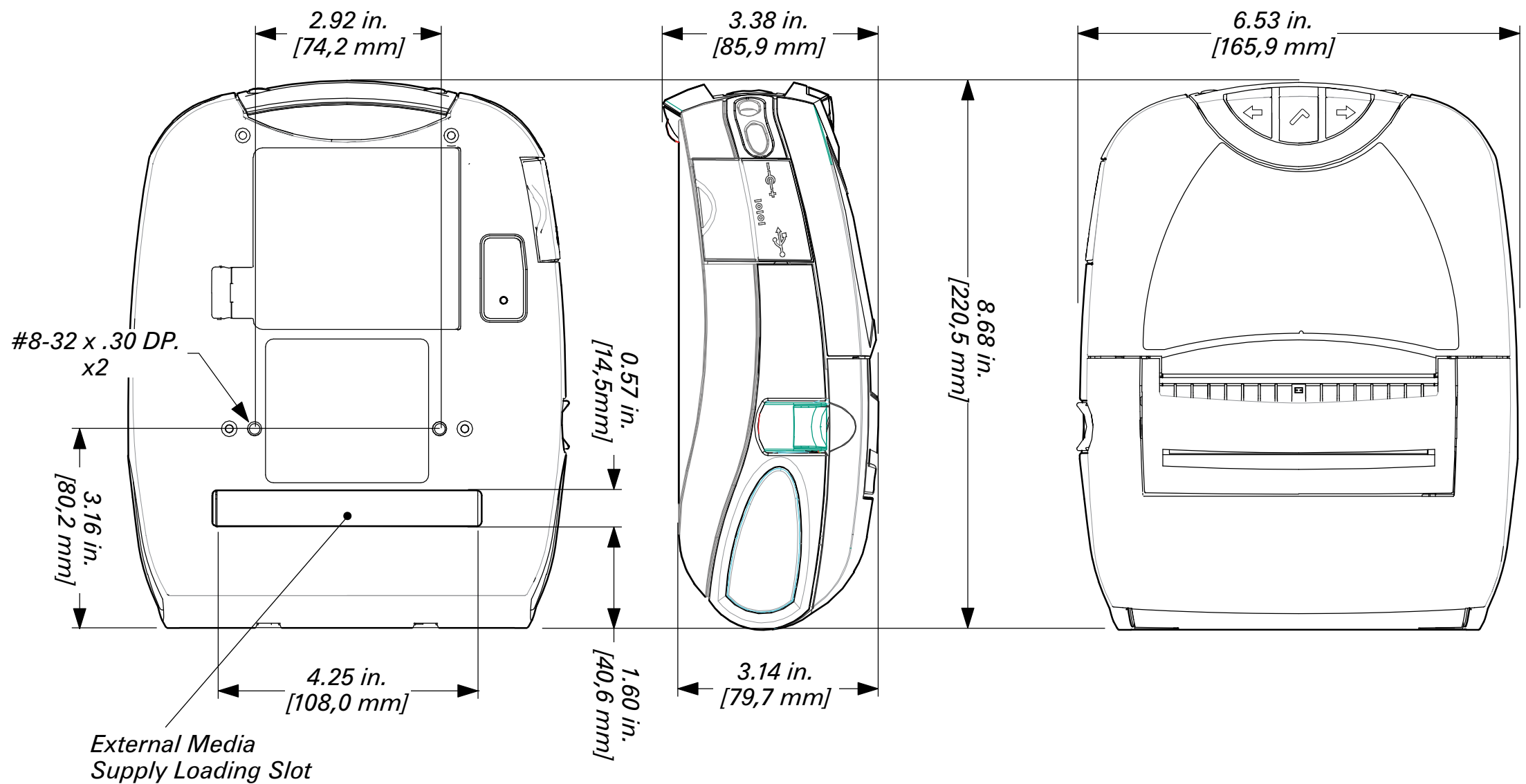
**Contains UFST from Agfa Monotype Corporation*

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Physical/Environmental/Electrical Specifications

P4T Series	
Weight w/ battery, and TT ribbon excluding media and radio option	2.9 lbs. (1,32 Kg.)
Operating Temperature	Direct Thermal: -4 °F to 122 °F (-20 °C to 50 °C) Thermal Transfer: 32 °F to 113 °F (0 °C to 45 °C)
Charging Temperature	32 °F to 104 °F (0°C to 40 °C)
Storage Temperature	-22 °F to 149 °F (-30 °C to 65 °C)
Relative Humidity	Operating: 10% to 90% (non-condensing)
	Storage: 10% to 90% (non-condensing)
Battery	7.4V Lithium-Ion 4.2 Ahr.
Intrusion Protection (IP) Rating	14 (54 w/ optional soft case)

Figure 20-P4T Series Overall Dimensions



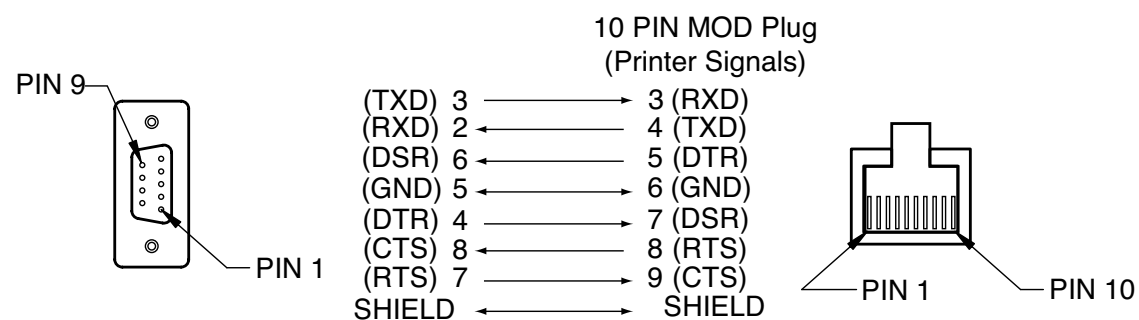
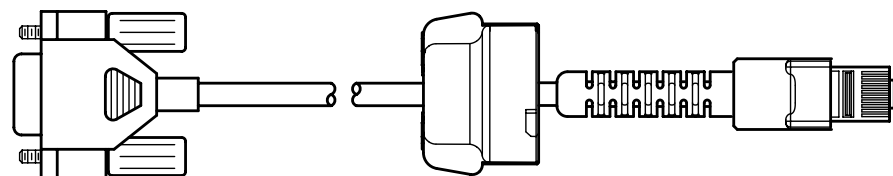
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Appendix A

Interface Cables

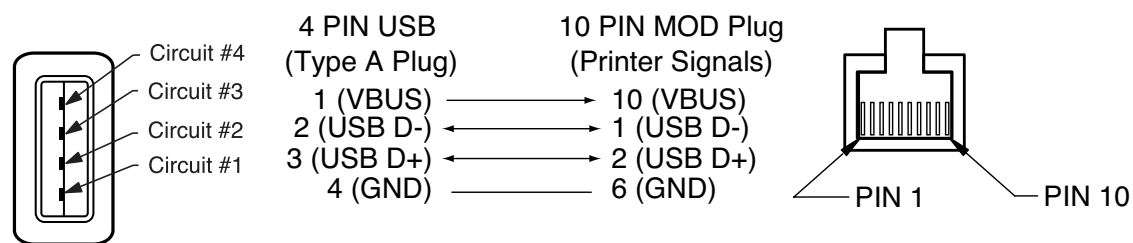
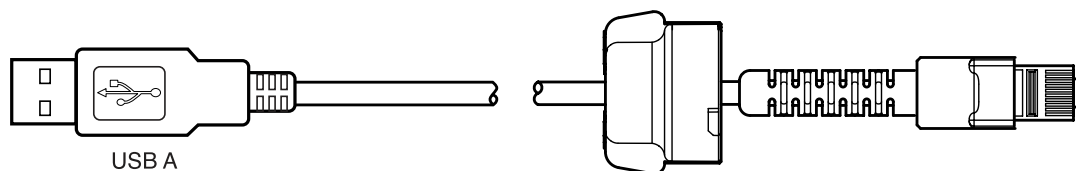
RS232 Download Cable

Part Number AK17463-008; RW Mod Plug to 9-Pin DB PC Cable



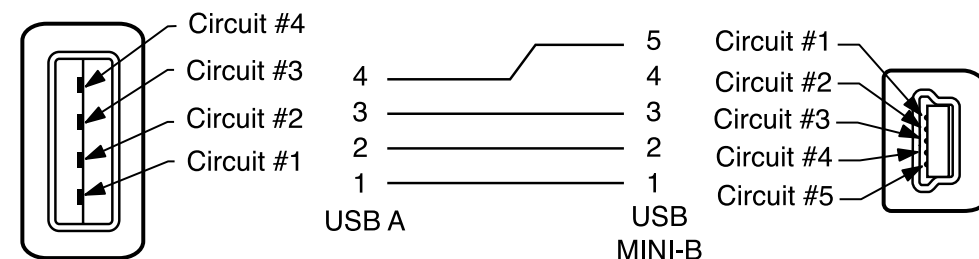
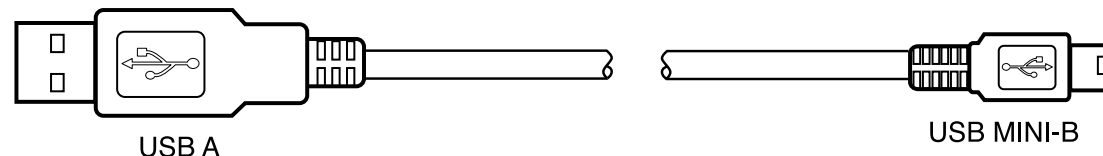
USB Download Cable

Part Number AK18666-1; RW Mod Plug to USB A Cable



USB Cable

Part Number AT17010-1; USB A to USB Mini B Cable



Contact the Factory or your Zebra Sales Representative for more information on interface cables to most major manufacturer's data terminals.

You may also visit the Zebra Web site at www.zebra.com for a listing of interface cables for all series of Zebra mobile printers

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Appendix B

Media Supplies

To insure maximum printer life and consistent print quality and performance for your individual application, it is recommended that only media produced by Zebra be used.

Advantages include:

- Consistent quality and reliability of media products.
- Large range of stocked and standard formats.
- In-house custom format design service.
- Large production capacity which services the needs of many large and small media consumers including major retail chains world wide.
- Media products that meet or exceed industry standards.

For more information about standard or custom media contact your re-seller or Zebra Technologies Corporation at +1.866.230.9495 (U.S., Canada and Mexico) and ask to speak to a Media Sales Representative.

Appendix C

Maintenance Supplies

In addition to using quality media provided by Zebra, it is recommended that the printer be cleaned as prescribed in the Maintenance section. The following items are available for this purpose:

- Cleaning Pen (12 pack), Reorder No. AN11209-1
- Cleaning Kit with Cleaning Pen, and Cotton Swabs, Reorder No. AT702-1

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Appendix D

Product Support

When calling with a specific problem regarding your printer, please have the following information on hand:

- Model number/type (e.g. P4T, RP4T)
- Unit serial number
- Product Configuration Code (PCC)

For on-line product support and the most recent versions of downloadable user documentation, firmware and software utilities, go to the Zebra Web site: www.zebra.com

In the Americas, contact

Regional Headquarters	Technical Support	Customer Service Dept
Zebra Technologies International, LLC 333 Corporate Woods Parkway Vernon Hills, Illinois 60061-3109 U.S.A T: +1 847 793 2600 Toll-free +1 800 423 0422 F: +1 847 913 8766	T: +1 847 913 2259 F: +1 847 913 2578 Hardware: ts1america@zebra.com Software: ts3america@zebra.com	For printers, parts, media, and ribbon, please call your distributor, or contact us. T: +1 877 275 9327 E: clientcare@zebra.com

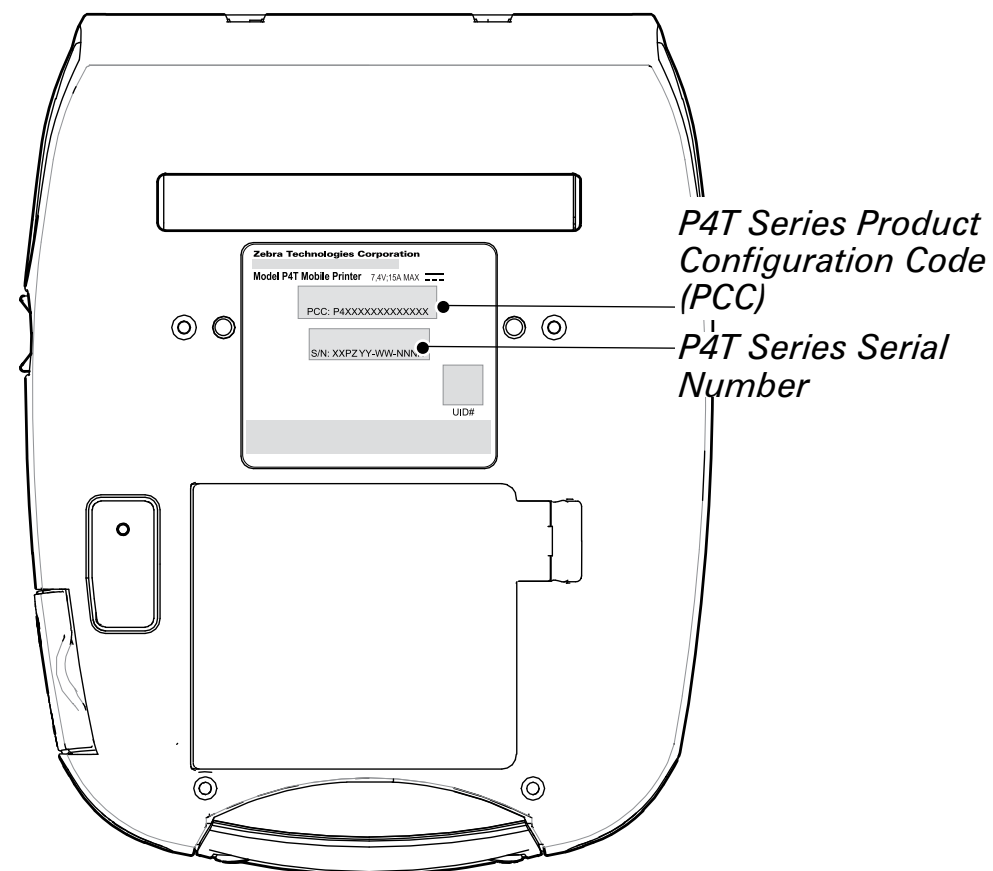
In Europe, Africa, the Middle East, and India, contact

Regional Headquarters	Technical Support	Internal Sales Dept.
Zebra Technologies Europe Limited Zebra House The Valley Centre, Gordon Road High Wycombe Buckinghamshire HP13 6EQ, UK T: +44 (0)1494 472872 F: +44 (0) 1494 450103	T: +44 (0) 1494 768298 F: +44 (0) 1494 768210 Germany: Tsgermany@zebra.com France: Tsfrence@zebra.com Spain/ Portugal: Tsspain @zebra.com All other areas: Tseurope@zebra.com	For printers, parts, media, and ribbon, please call your distributor, or contact us T: +44 (0) 1494 768316 F: +44 (0) 1494 768244 E: cseurope@zebra.com

In the Asia Pacific region, contact

Regional Headquarters	Technical Support	Customer Service
Zebra Technologies Asia Pacific, LLC Go to www.zebra.com/contact for complete contact information T: +65 6858 0722 F: +65 6885 0838	T: +65 6858 0722 F: +65 6885 0838 E: (China): tschina@zebra.com All other areas: tsasiapacific@zebra.com	For printers, parts, media, and ribbon, please call your distributor, or contact us T: +65 6858 0722 F: +65 6885 0836 E: (China) order-csr@zebra.com All other areas: csasiapacific@zebra.com

Serial and PCC Number Locations for P4T Series Printers



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Appendix E

Battery Disposal



The EPA certified RBRC® Battery Recycling Seal on the Lithium-Ion (Li-ion) battery supplied with your printer indicates Zebra Technologies Corporation is voluntarily participating in an industry program to collect and recycle these batteries at the end of their useful life, when taken out of service in the United States or Canada. The RBRC program provides a convenient alternative to placing used Li-ion batteries into the trash or the municipal waste stream, which may be illegal in your area.



Insulate depleted battery terminals with tape before disposal.

Please call +1 800 8BATTERY for information on Li-ion battery recycling and disposal bans or restrictions in your area. Zebra Technologies Corporation's involvement in this program is part of our commitment to preserving our environment and conserving our natural resources.

Outside North America, please follow local battery recycling guidelines.

Product Disposal



Do not dispose of this product in unsorted municipal waste. This product is recyclable. Please recycle according to your local standards. For more information, please see our web

site at: <http://www.zebra.com/environment>

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Appendix F

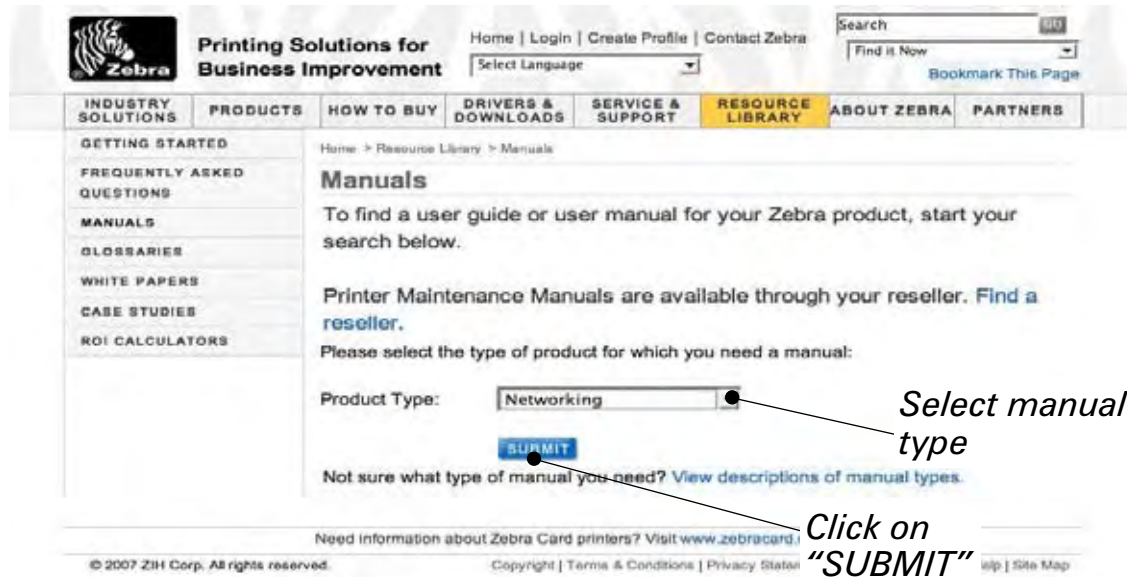
Using zebra.com

The following examples use the search functions on Zebra's Web site for finding specific documents .

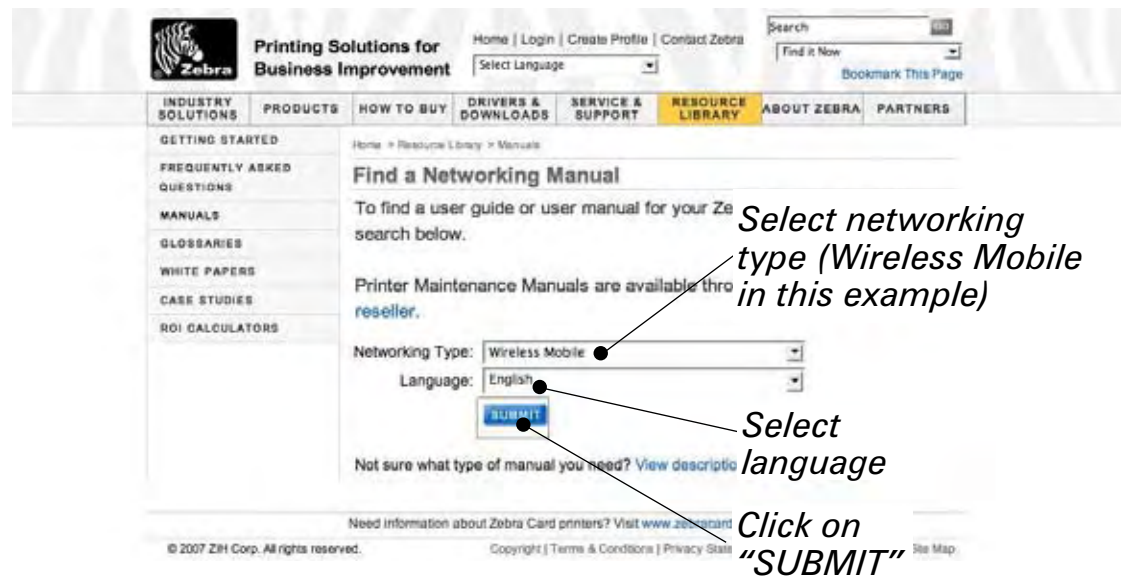
Example1: Find the Mobile Printer Wireless Configuration Guide.

Go to www.zebra.com/manuals.

Select as a manual type "Networking Manual" then click on "Submit".



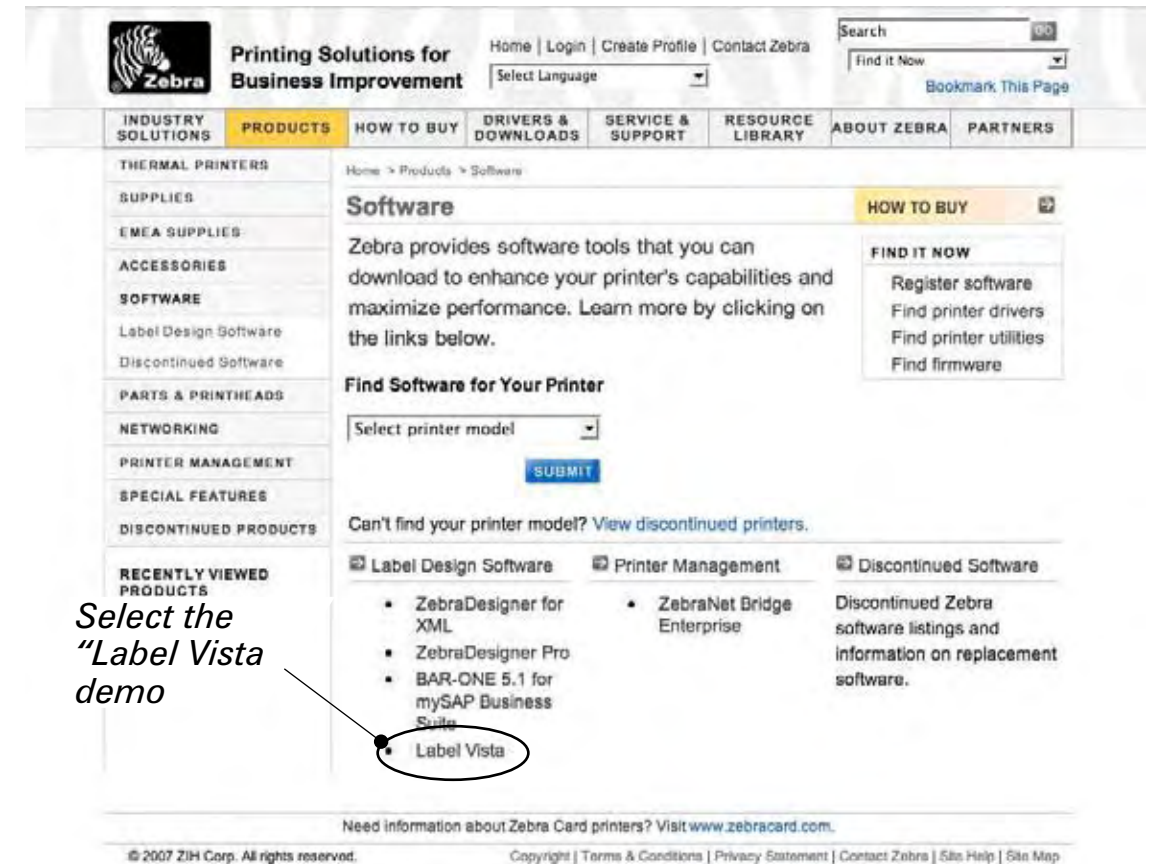
At the resulting screen, select Wireless Mobile as the networking type. Then select the desired language. (Best choices are "All" or "English")



At the resulting screen, select "Zebra Mobile Printers - Wireless Configuration Guide" then click on "Download" to begin the download process.

Example 2: Find the Label Vista Download page:

Go to www.zebra.com/software and select "Label Vista", then click "Submit".



At the resulting window select "Download a free Label Vista demo now "

Appendix G- Patents

This product and/or its use may be covered by one or more of the following US patents and corresponding international patents worldwide

D275,286	5,113,445	5,399,846	5,726,630	6,261,009
D347,021	5,140,144	5,408,081	5,768,991	6,261,013
D389,178	5,132,709	5,410,139	5,790,162	6,267,521
D430,199	5,142,550	5,410,140	5,791,796	6,270,072 B1
D433,702	5,149,950	5,412,198	5,806,993	6,285,845 B1
D549,768	5,157,687	5,415,482	5,813,343	6,292,595
3,964,673	5,168,148	5,418,812	5,816,718	6,296,032
4,019,676	5,168,149	5,420,411	5,820,279	6,364,550
4,044,946	5,180,904	5,436,440	5,848,848	6,379,058 B1
4,360,798	5,229,591	5,444,231	5,860,753	6,409,401 B1
4,369,361	5,230,088	5,449,891	5,872,585	6,411,397 B1
4,387,297	5,235,167	5,449,893	5,874,980	6,428,227 B2
4,460,120	5,243,655	5,468,949	5,909,233	6,480,143
4,496,831	5,247,162	5,479,000	5,976,720	6,530,705
4,593,186	5,250,791	5,479,002	5,978,004	6,540,122
4,607,156	5,250,792	5,479,441	5,995,128	6,540,142
4,673,805	5,262,627	5,486,057	5,997,193	6,607,316
4,736,095	5,267,800	5,503,483	6,004,053	6,609,844
4,758,717	5,280,163	5,504,322	6,010,257	6,655,593
4,816,660	5,280,164	5,519,381	6,020,906	6,784,787
4,845,350	5,280,498	5,528,621	6,034,708	6,874,958
4,896,026	5,304,786	5,532,469	6,036,383	6,899,477
4,897,532	5,304,788	5,543,610	6,057,870	6,908,034
4,923,281	5,321,246	5,545,889	6,068,415	7,126,716
4,933,538	5,335,170	5,552,592	6,068,415	7,137,000
4,992,717	5,364,133	5,570,123	6,095,704	7,172,122
5,015,833	5,367,151	5,578,810	6,109,801	7,190,270
5,017,765	5,372,439	5,589,680	6,123,471	
5,021,641	5,373,148	5,612,531	6,147,767	
5,029,183	5,378,882	5,642,666	6,151,037	
5,047,617	5,396,053	5,657,066	6,201,255 B1	
5,103,461	5,396,055	5,680,459	6,231,253 B1	

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Radio Regulatory Information

Bluetooth ZBR4 Radio

The following section only applies when the Bluetooth ZBR4 module is installed in a P4T series printer. This radio configuration has demonstrated compliance to FCC regulations. P4T series printers with this configuration sold in North America will have the FCC ID number for this radio module on a label on the back of the printer.



Caution • Exposure to Radio Frequency Radiation.
The radiated output power of this internal Bluetooth radio is far below the FCC radio frequency exposure limits. The internal Bluetooth radio operates within guidelines found in radio frequency safety standards and recommendations. Do not use the printer in an unauthorized manner.



Note • The following section only applies when the ZBR4 Bluetooth Radio is installed in a P4T Series printer. Unless specified elsewhere in this manual, the antenna used for this transmitter must not be co-located or must not operate in conjunction with any other antenna.

European Regulatory Information for the ZBR4 Bluetooth Radio

This device is intended for use in all EU and EFTA member states.
Europe – EU Declaration of Conformity
This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of compliance with the R&TTE Directive 1999/5/EC:

- EN 60950: 2000 Safety of Information Technology Equipment
- EN 300 328-2 V1.4.1 (2003-04) Technical requirements for spread-spectrum radio equipment
- EN 301 489-1/-17 V1.4.1/1.2.1 (2002-08) EMC requirements for spread-spectrum radio equipment.

This device is a 2.4 GHz wireless LAN transceiver, intended for indoor home and office use in all EU and EFTA member states.

	<p>Important Notice: This device is a portable RF printer intended for commercial and industrial use in all EU and EFTA member states.</p>
--	---

WLAN Module Using 802.11b/g Radio

The following section only applies when the 802.11b/g WLAN module is installed in a P4T series printer. Other than conditions specified elsewhere in this manual, only one of the radio options can be installed in the printer at one time and the antenna used for these transmitters must not be co-located or must not operate in conjunction with any other antenna.

P4T Series printers for sale in North America will have the 802.11b/g radio FCC ID number on a label on the back of the unit.



Caution • The radiated output power of this internal 802.11b/g WLAN radio is far below the FCC radio frequency exposure limits. The internal radio operates within guidelines found in radio frequency safety standards and recommendations. Do not use the printer in an unauthorized manner.

European Regulatory Information for this Radio

AT	BE	CY	CZ	DK
EE	FI	FR	DE	GR
HU	IE	IT	LV	LT
LU	MT	NL	PL	PT
SK	SI	ES	SE	GB

Note: -Member states in the EU with restrictive use for this device are crossed out!
This device is also authorized for use in all EFTA member states (CH, IS, LI, NO)

0336	<p>Important Notice: This device is a portable RF printer intended for commercial and industrial use in all EU and EFTA member states except in France where restrictive use applies</p>
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Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of compliance with the R&TTE Directive 1999/5/EC:

- EN55022:1998
- European Emissions Standard
 - EN 60950: 2000
- Safety of Information Technology Equipment
 - EN 300 328-2 V1.2.1 (2001-12)
- Technical requirements for spread-spectrum radio equipment
 - EN 301 489-17 V1.2.1 (2002-08)
- EMC requirements for spread-spectrum radio equipment.

This device is a 2.4 GHz wireless LAN transceiver, intended for indoor home and office use in all EU and EFTA member states, except in France where restrictive use applies.

The use of this frequency band in France is subject to restrictions. You may only use channels 10 and 11 (2457 and 2462 MHz) on French territory, except in those French departments as listed in the table below where channels 1-13 (2412-2472 MHz) may be used. For more information see <http://www.anfr.fr/> and/or <http://www.art-telecom.fr>

01	Ain	36	Indre	69	Rhone
02	Aisne	37	Indre et Loire	70	Haute Saone
03	Allier	39	Jura	71	Saone et Loire
05	Hautes Alpes	41	Loir et Cher	72	Sarthe
08	Ardennes	42	Loire	75	Paris
09	Ariege	45	Loiret	77	Seine et Marne
10	Aube	50	Manche	78	Yvelines
11	Aude	54	Meurthe et Moselle	79	Deux Sievres
12	Aveyron	55	Meuse	82	Tarn et Garonne
16	Charente	57	Moselle	84	Vaucluse
19	Correze	58	Nievre	86	Vienne
2A	Corse Sud	59	Nord	88	Vosges
2B	Haute Corse	60	Oise	89	Yonne
21	Cote d'Or	61	Orne	90	Territoire de Belfort
24	Dordogne	63	Puy de Dome	91	Essonne
25	Doubs	64	Pyrenees Atlantique	92	Hauts de Seine
26	Drome	65	Hautes Pyrenees	93	Seine St Denis
27	Eure	66	Pyrenees Orientales	94	Val de Marne
32	Gers	67	Bas Rhin		
35	Ille et Vilaine	68	Haute Rhin		

Republic of China Regulatory Information for the 802.11b/g Radio

經型式認證合格之低功率射頻電機,非經許可,公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻電機之使用不得影響飛航安全及干擾合法通信;經發現有干擾現象時,應立即停用,並改善至無干擾時方得繼續使用。前項合法通信,指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

According to “Administrative Regulations on Low Power Radio Waves Radiated Devices” Without permission granted by the DGT, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to a approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; If found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Act.

The low power radio-frequency devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

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802.11b/g and Bluetooth Co-located Radio Modules

The following section only applies when the CF (Compact Flash) WLAN module and Bluetooth ZBR4 module are installed in a P4T printer. This co-located radio configuration has demonstrated compliance to FCC regulations. P4T printers with this configuration sold in North America will have the FCC ID numbers for both radios on a label on the back of the printer.



Caution • Use of a P4T printer with the co-located ZBR4 Bluetooth radio module and the 802.11b/g WLAN radio module meets the FCC requirements for radio frequency (RF) radiation exposure in the standard body worn configuration with no minimum separation. In this configuration, which applies whether the belt clip or shoulder strap is used, the face of the printer from which paper is transported is facing away from the user's body. The standard configuration must always be used when the printer is body worn.



P4T printers with this radio option have been SAR tested. The maximum SAR value measured was **TBD W/kg averaged over 1 gram.**

European Regulatory Information for the Compact Flash 802.11b Radio and Bluetooth Co-located Radio Modules

AT	BE	CY	CZ	DK
EE	FI	FR	DE	GR
HU	IE	IT	LV	LT
LU	MT	NL	PL	PT
SK	SI	ES	SE	GB

Note: -Member states in the EU with restrictive use for this device are crossed out!
This device is also authorized for use in all EFTA member states (**CH, IS, LI, NO**)

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of compliance with the R&TTE Directive 1999/5/EC:

- EN 60950: 2000

Safety of Information Technology Equipment

- EN 300 328-2 V1.2.1 (2001-12)

Technical requirements for spread-spectrum radio equipment

- EN 301 489-17 V1.2.1 (2002-08)

EMC requirements for spread-spectrum radio equipment.

This device is a 2.4 GHz wireless LAN transceiver, intended for indoor home and office use in all EU and EFTA member states, except in France where restrictive use applies.

The use of this frequency band in France is subject to restrictions. You may only use channels 10 and 11 (2457 and 2462 MHz) on French territory, except in those French departments as listed in the table below where channels 1-13 (2412-2472 MHz) may be used. For more information see <http://www.anfr.fr/> and/or <http://www.art-telecom.fr>

01	Ain	36	Indre	69	Rhone
02	Aisne	37	Indre et Loire	70	Haute Saone
03	Allier	39	Jura	71	Saone et Loire
05	Hautes Alpes	41	Loir et Cher	72	Sarthe
08	Ardennes	42	Loire	75	Paris
09	Ariege	45	Loiret	77	Seine et Marne
10	Aube	50	Manche	78	Yvelines
11	Aude	54	Meurthe et Moselle	79	Deux Sievres
12	Aveyron	55	Meuse	82	Tarn et Garonne
16	Charente	57	Moselle	84	Vaucluse
19	Correze	58	Nievre	86	Vienne
2A	Corse Sud	59	Nord	88	Vosges
2B	Haute Corse	60	Oise	89	Yonne
21	Cote d'Or	61	Orne	90	Territoire de Belfort
24	Dordogne	63	Puy de Dome	91	Essonne
25	Doubs	64	Pyrenees Atlantique	92	Hauts de Seine
26	Drome	65	Hautes Pyrenees	93	Seine St Denis
27	Eure	66	Pyrenees Orientales	94	Val de Marne
32	Gers	67	Bas Rhin		
35	Ille et Vilaine	68	Haute Rhin		

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RFID Encoder

The following section only applies when the RFID encoder is installed in an RP4T printer. The RFID encoder may be installed in conjunction with either the Bluetooth or 802.11g radio options detailed previously, but may not be installed with the Bluetooth/802.11g dual radio option.

P4T Series printers will have the fifth character of the Product Configuration Code (PCC) per the following table:

RFID option	PCC digit "4"	Printer Model
No RFID	0	P4T
US	1	RP4T
EU	2	RP4T
Japan	3	RP4T
China	4	RP4T
Korea	5	RP4T

Units built for the North American region will have the RFID encoder FCC ID number on a label on the back of the unit.



Caution • Exposure to Radio Frequency Radiation.

The radiated output power of this RFID encoder is far below the FCC radio frequency exposure limits. The RFID encoder operates within guidelines found in radio frequency safety standards and recommendations. Do not use the printer in an unauthorized manner.