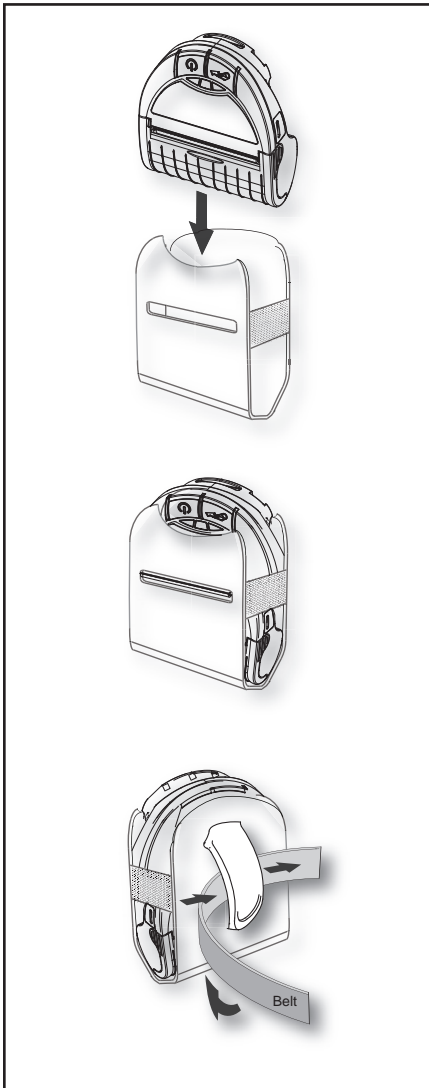


Nylon Soft Case

The EZ320 printer also has the option of being used with a Nylon Soft Case (not included) which allows the user greater portability. The case loops onto a user's belt and provides access to the printer's paper path and printer controls. Use of the soft case is illustrated in Figure 14 below.

Figure 14: Using the Optional Soft Case



1) Slide the EZ320 printer into the soft case so that the paper exit path lines up with the opening on the case.

2) The belt is fed through the belt loop on the back of the soft case to secure in place.

Preventive Maintenance

Extending Battery Life

- Always observe the safety precautions in the Lithium-Ion Battery Technical Bulletin included with each Battery Pack.
- Never expose the battery to direct sunlight or temperatures over 60° C (140° F).
- Do not charge the battery when the temperature exceeds 45° C (113° F).
- Always use a Zebra power supply designed specifically for the EZ320 printers. Use of any other kind of power supply may damage the battery.
- Use the correct media for your printing requirements. An authorized Zebra re-seller can help you determine the optimum media for your application.
- If you print the same text or graphic on every label, consider using a pre-printed label.
- Choose the correct print darkness, and print speed for your media.



NOTE: The Tone setting can be modified via a Set/Get/Do command. Please refer to the CPCL Programming Manual at www.zebra.com/manuals for details.

- Remember that any rechargeable battery will lose its ability to maintain a charge over time. It can only be recharged a finite number of times before it must be replaced. Always dispose of batteries properly.
- If you print while charging the battery, charge times will be prolonged. Extensive printing while charging could deplete the battery enough to cause the low battery warning indicator to turn on. You should suspend printing at that time and allow the battery to re-charge completely.

continued

General Cleaning Instructions



Caution • To avoid possible personal injury or damage to the printer, never insert any pointed or sharp objects into the printer.

Always turn the printer off before performing any cleaning procedures.

Use care when working near the tear bar. The edges are very sharp.



Caution • The printhead can be very hot after prolonged printing. Allow it to cool off before attempting any cleaning procedures.



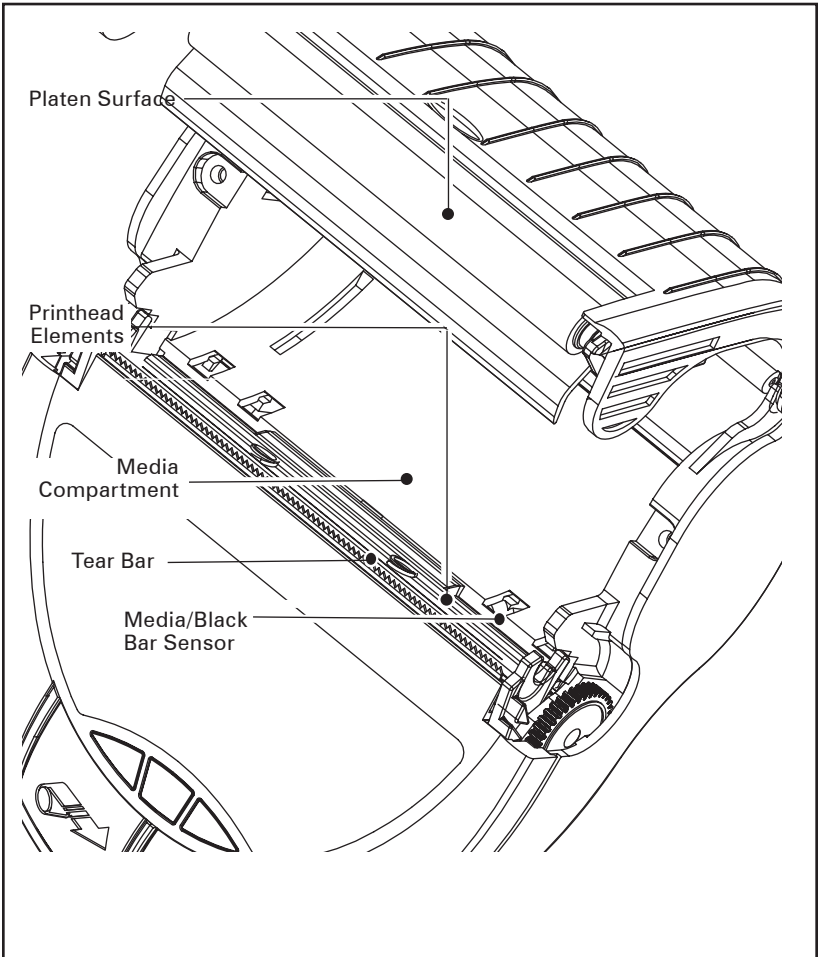
Only use the cleaning pen or a cotton swab saturated with alcohol for cleaning the printhead.



Caution • Use only cleaning agents specified in the following tables. Zebra Technologies Corporation will not be responsible for damage caused by any other cleaning materials used on this printer.

EZ320 Cleaning Instructions		
Area	Method	Interval
Printhead	Use a Zebra cleaning pen or a 70% Isopropyl alcohol solution on a cotton swab to clean the print elements from end to end (the print elements are located in the thin gray line on the printhead).	
Platen	Rotate the platen roller and clean it thoroughly with a Zebra cleaning pen or a 70% Isopropyl alcohol solution and a cotton swab.	After every five rolls of media (or more often, if needed)
Tear bar	Clean thoroughly with a Zebra cleaning pen or a 70% Isopropyl alcohol solution and a cotton swab.	
Exterior	Water dampened cloth	As needed
Media Compartment Interior	Brush/air blow.	After every five rolls of media (or more often, if needed)
Media/Black Bar Sensor		

Figure 15: EZ320 Cleaning



Note • Twelve packs of approved cleaning pens are available from Zebra as p/n AN11209-1.



Caution • To avoid possible personal injury or damage to the Printer, never insert any pointed or sharp objects into the Printer.

Troubleshooting

Interpreting Indicators

The printer's indicators display various printer functions and their status. Check the indicator status, then refer to the Troubleshooting topic referenced in the chart.

Function	Indicator Color	Indicator Status: Steady	Indicator Status: Blinking	Troubleshooting Topic
Battery Status Indicator	Green	Indicates printer is on and battery condition is OK to use.	One (of three) LED's blinks and printer beeps to signify Low Battery	3
Charger	Amber/ Green	Off indicates battery is not charging. Amber indicates battery is charging. Green indicates battery is charged.	N/A	1,6,10
Error	Amber	Off indicates no error condition.	No media or media door is open. Application may be missing or corrupted	2,4,7,9
Bluetooth	Blue	Bluetooth: Printer has paired with another Bluetooth device.	Solid blue indicates connected. Fast blinking indicates data is being received	5,8

Troubleshooting Topics

1. No power:

- Ensure you press and hold the Power switch until the Battery Status Indicator lights come on.
- Check that battery is installed properly.
- Recharge or replace battery as necessary.

2. Media does not feed:

- Be sure Media Cover is closed and latched.
- Check media compartment. Ensure media is not binding on the sides of the compartment.

3. Poor or faded print

- Clean printhead.
- Check battery for possible damage. Recharge or replace as necessary.
- Check quality of media.
- Check the "Tone" setting using Zebra Setup Utility.

-
4. Partial or missing print:
 - Check media alignment.
 - Clean printhead.
 - Ensure Media Cover is properly closed and latched.
 5. No print:
 - Replace battery.
 - Check cable to terminal.
 - (Bluetooth units only) Re-Pair Bluetooth connection with Master device.
 6. Reduced battery life:
 - Check battery date code — if battery is one to two years old, short life may be due to normal aging.
 - Recharge or replace battery.
 7. Flashing Amber indicator:
 - Check that media is loaded and that printhead is closed and securely latched.
 - If media is present and latch is closed, indicates that no application is present or application is corrupted. Program must be re-loaded.
 8. Communication Error:
 - (Bluetooth units only) Check that media is loaded, head is closed and blue communication link light is on.
 - (USB) Replace cable to terminal.
 9. Label Jam:
 - Open media cover.
 - Use Isopropyl alcohol to clean printer in area of jammed label.
 10. Battery Pack Is Hard to Install
 - Do not force the battery into place.
 - Verify you are seating the battery properly in the battery compartment.

Resetting an EZ320 Printer



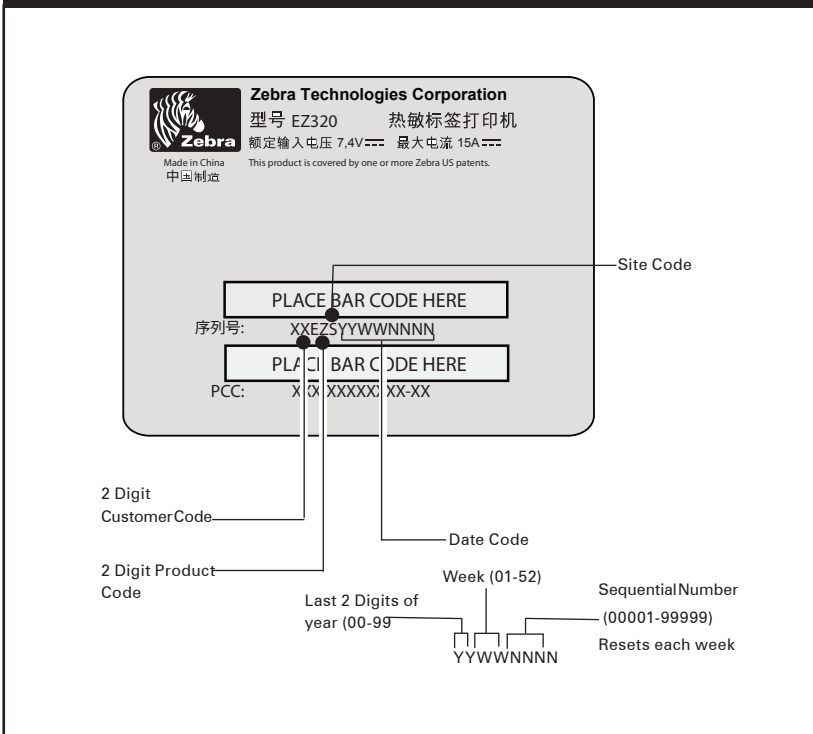
If the printer has locked up and is not responding to any operator inputs or external commands from a connected terminal, you can perform a forced reset as follows:

1. Press and hold the power button for 5 seconds and then release. The printer will power down.
2. Re-start the Printer as usual. Any pending data in the printer will have been deleted and must be re-sent.

Determining Your Printer Version

The printer build date is identified by the Year and Week codes of the printer serial number label located on the bottom of the unit. (See Figure 16 below).

Figure 16: Determining Your Printer Version



Troubleshooting Tests

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 hold the Power button and keep the Feed button pressed.
4. When the printer turns on, release the Power button, and once printing starts, release the Feed button.

Refer to Figures 17a, 17b, and 17c for a sample configuration printout.

Communications Diagnostics

If there is a problem transferring data between the computer and the printer, try putting the printer in the Communications Diagnostics Mode. The printer will print the ASCII characters and their text representation (or the period '.', if not a printable character) for any data received from the host computer

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



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

4. At this point, the printer is in Diagnostics 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.

To terminate the Communications Diagnostics Mode and return the printer to normal operations:

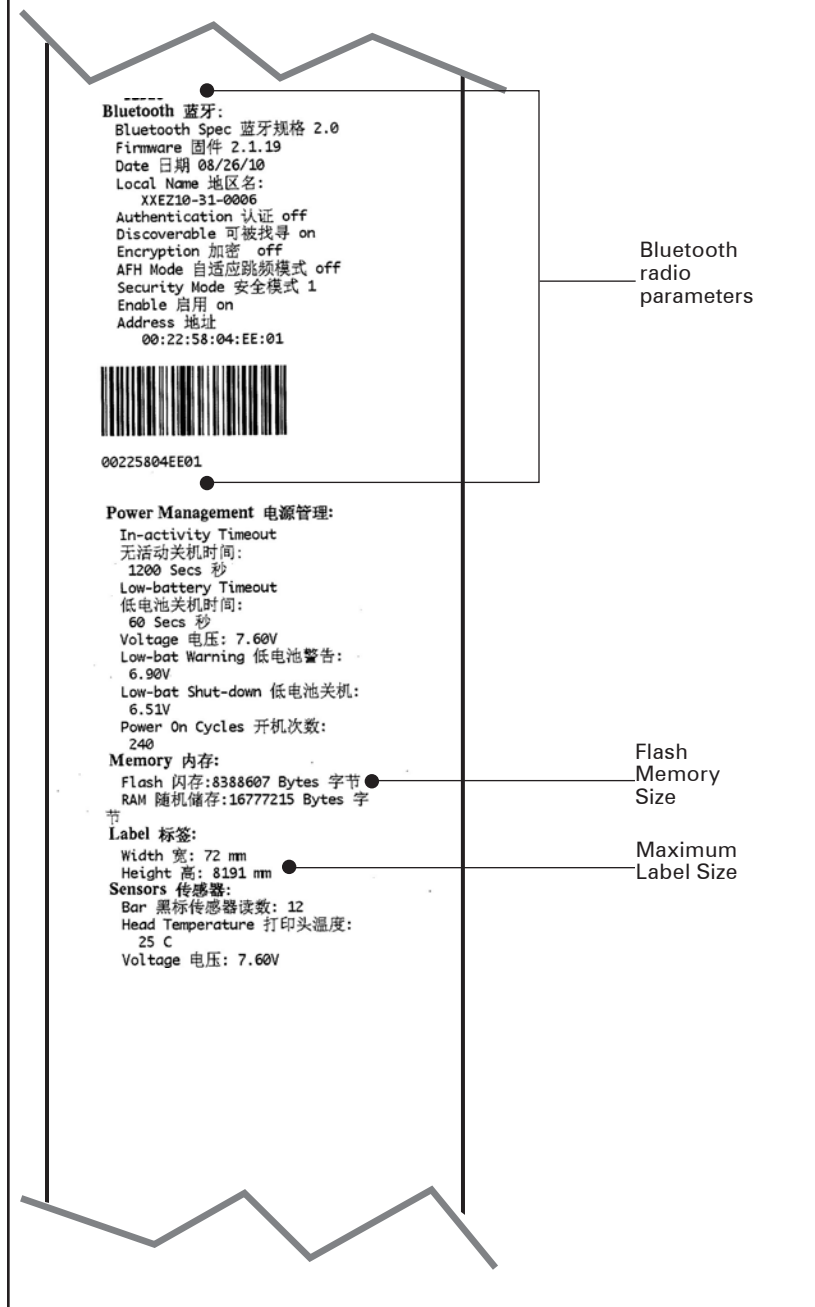
1. Turn the printer OFF.
2. Wait 5 seconds.
3. Turn the printer ON.

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. Technical Support addresses and phone numbers for your area can be found in Appendix D of this manual. You will need to supply the following information:

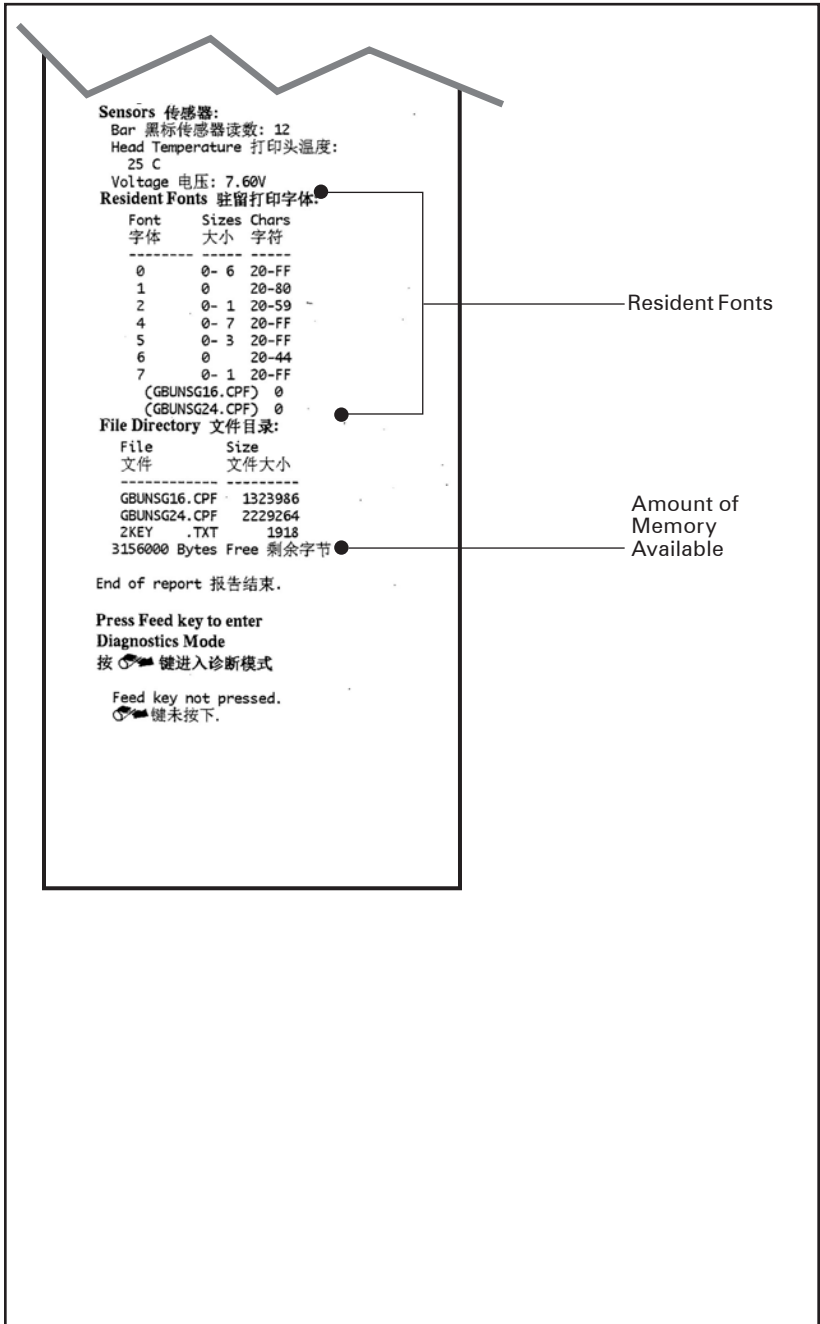
- Model number and type (e.g. EZ320)
- Unit serial number (Found on the large label on the back of the printer, also found in the configuration label print-out. Refer to Figure 17a.)
- Product Configuration Code (PCC) (15 digit number found on the label on the back of the unit)

Figure17b: Configuration Label Example (continued)



continued

Figure 17c: Configuration Label Example (continued)



Specifications



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

Printing Specifications

Parameter	EZ320
Print Width	Fixed width 74,0 mm (2.91 in.)
PrintSpeed (typical)*	50,8 mm/second (2 in. per second)
Print Head Life, calculated	25400000 mm (1 million inches) of media fed
Print Density	8 dots/mm (203 dots/inch)
Printhead Burn Line to Tear Edge	5,0 mm (.197 in.)

* Extreme temperatures and print densities may affect print speed. Please contact Zebra for guidance to maximize the performance of your solution.

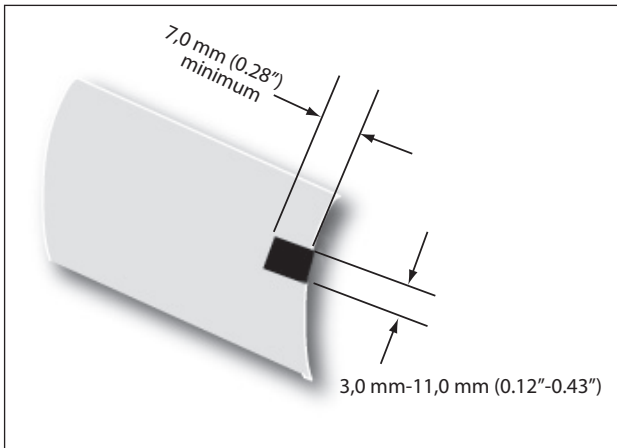
Memory and Communications Specifications, EZ320

Flash Memory	8 MB
SRAM	16 MB
Standard Communications	USB 2.0 Full Speed Interface (12 Mbps) Standard Bluetooth compliant with Bluetooth specification 2.0

Media Specifications

Parameter		EZ320
Width		80,0 mm \pm 1 mm (3.15 in. \pm 0.03 in.)
Max. Printable Area	Width	74,0 mm (2.91 in.)
	Length	14,5 mm (.57 in.) min. to 813 mm (32 in.) max
Media Thickness		0.060 mm to 0.1143 mm (.0023 in to .0045 in)
Max. Media Roll dia.		42,0 mm (1.65 in.) O.D.
Label Inner Core Diameter		10,2 to 19,0 mm (0.40 to 0.75 in.)
Black Mark Dimensions		The reflective media black marks should extend from the right side of the roll on the front side of the media. Minimum mark width: 7 mm (0.28 in.) perpendicular to edge of media, starting from the right edge of the roll when looking at the print side of the media. Mark length: 3,0-11,0 mm (0.12 - 0.43 in.) parallel to edge of the roll. (See illustration below).

Black Mark Dimensions)



Font and Bar Code Specifications for EZ320

Linear & 2-D Bar Bar Codes Available	Codabar (NW-7)
	UCC/EAN 128
	UCC composite A/B/C
	Code 39
	Code 93
	Code 128
	EAN 8, 13, 2 and 5 digit extensions
	EAN-8 composite
	EAN 13 composite
	Interleaved 2 of 5
	MSI/Plessey
	FIM/POSTNET
	Intelligent Mail Barcode
	UPC-A, 2 and 5 digit extensions
	UPC-E, 2 and 5 digit extensions
	UPC-A composite
	UPC-E composite
	QR Code
	MaxiCode
	PDF 417
	GS1 DataBar (RSS-14)
	GS1 DataBar (RSS-14) expanded
	GS1 DataBar (RSS-14) truncated
GS1 DataBar (RSS-14) limited	
GS1 DataBar (RSS-14) stacked	
GS1 DataBar (RSS-14) stacked omnidirectional	
Aztec	
Rotation Angles	0°, 90°, 180°, and 270°

continued

Fonts Available	GBUNSG24.CPF Simplified Chinese 24x24 GBUNSG16.CPF Simplified Chinese 16x16 CTUNMK24.CPF Traditional Chinese 24x24
-----------------	--------------------------------------------------------------------------------------------------------------------------

Note: GB-18030 and BIG5 both support ASCII character sets.

The default EZ320 Encoding is GB-18030. To print Traditional Chinese, use ENCODING BIG5 command. See below for font and encoding selection as well as examples.

Pre-loaded Fonts

1. GBUNSG24.CPF

- Description: Simplified Chinese 24x24
- Encoding Command: GB18030 (default)
- Example (Label Mode):
! 0 200 200 300 1
ENCODING GB18030
TEXT GBUNSG24.CPF 0 10 50 add text here. . .
PRINT
- Example (Line-print Mode):
! U1 ENCODING GB18030
! U1 SETLP GBUNSG24.CPF 0 24
add text here, line 1
add text here, line 2

2. GBUNSG16.CPF

- Description: Simplified Chinese 16x16
- Encoding Command: GB18030 (default)
- Example (Label Mode):
! 0 200 200 300 1
ENCODING GB18030
TEXT GBUNSG16.CPF 0 10 50 add text here. . .
PRINT
- Example (Line-print Mode):
! U1 ENCODING GB18030
! U1 SETLP GBUNSG16.CPF 0 24
add text here, line 1
add text here, line 2

3. CTUNMK24.CPF

- Description: Traditional Chinese 24x24
- Encoding Command: BIG5
- Example (Label Mode):
! 0 200 200 300 1
ENCODING BIG5
TEXT CTUNMK24.CPF 0 10 50 add text here. . .
PRINT
- Example (Line-print Mode)
! U1 ENCODING BIG5
! U1 SETLP CTUNMK24.CPF 0 24
add text here, line 1
add text here, line 2

*SimSun is provided under license from Ascender Corporation. SimSun is copyright ZHONGYI Electronic and Microsoft Corporation.

USB Communications Port

Pin#	Signal 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

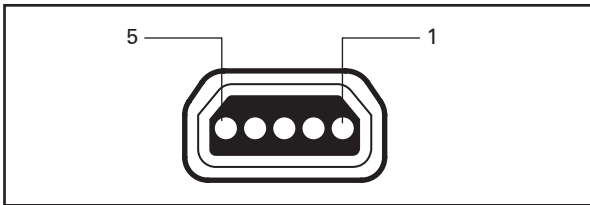
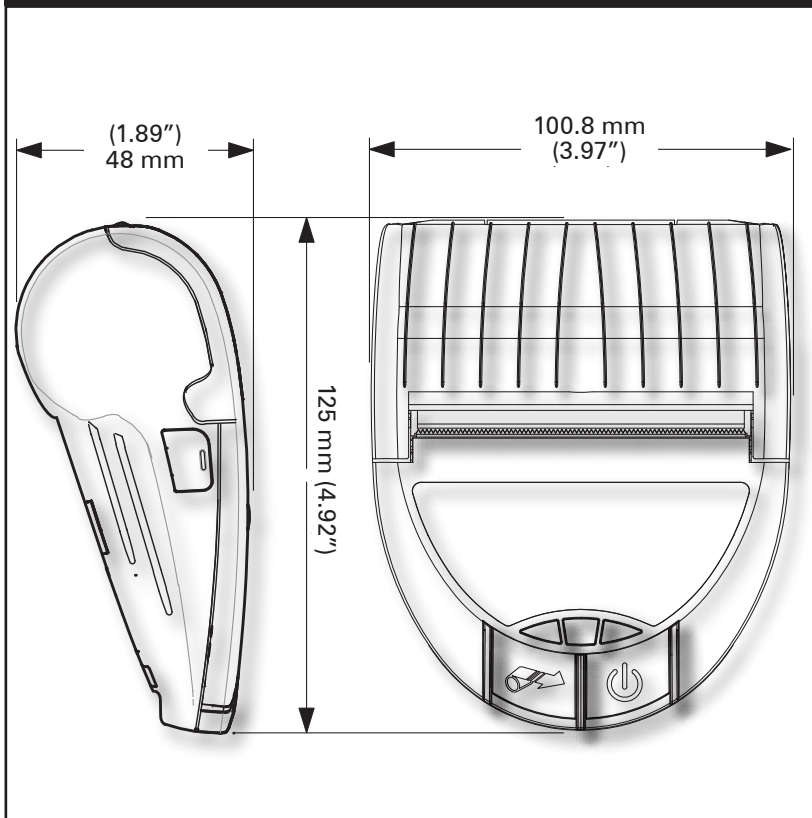


Figure 18: USB Communications Port

Physical, Environmental and Electrical Specifications

Parameter	EZ320
Weight w/ battery, excluding media	295g. (.65 lbs.)
Temperature	Operating : -10° to 50° C (14° to 122° F)
	Charging: 0° to 40° C (32° to 104° F)
	Storage w/o battery: -25° to 60° C (-4° to 140° F)
	Storage w/ battery: -25° to 45°C (-4° to 113° F)
Relative Humidity	Operating: 10% to 90% (non- condensing)
	Storage: 10% to 90% (non- condensing)
Battery	Lithium-Ion 2S-1P, 7.4VDC (nominal); 1150 mAHr.
Printer Input Power	12.0 VDC ±10%; 2A max
Ingression Protection (IP) Rating	42

Figure 19: EZ320 Overall Dimensions



EZ320 Accessories

Description
Adjustable belt strap p/n P1033361 (included)
Protective carrying case P1033362 (optional)
AC Adapter AT17947-1 (included)
Extra battery packs (p/n P1026078)
Single bay battery charger (optional)



Refer to Appendix A for information on Data I/O Cables

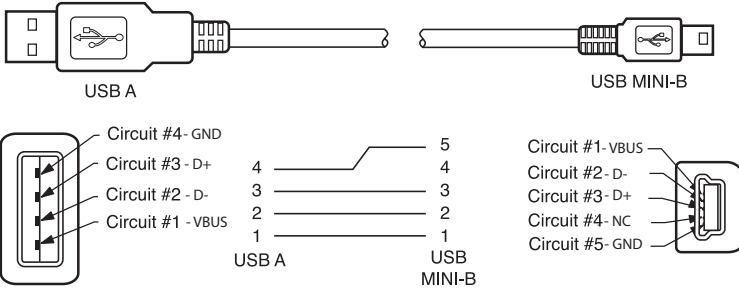
For more details on available accessories, contact your authorized Zebra re-seller.

Appendix A

Interface Cables

USB Cable

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



MORE INTERFACE CABLES



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 <http://www.zebra.com> for a listing of interface cables for all series of Zebra mobile printers

Appendix B

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 Pads (10 pack), Reorder No. AN11207-1

Appendix C

Media Supplies

Please make sure that the media supplies used in the EZ320 conform to the specifications listed below for the printer.

The different media types outlined in the following table were tested and verified to work properly in the EZ320.

EZ320 Media

Description	Weight	Width	Thickness	Roll OD	Core OD
Non-topcoated direct thermal receipt paper	60g/m ²	80 mm +/- 1 mm	0.058 mm	40 mm	12.7 mm
Non-topcoated direct thermal receipt paper	100g/m ²	80 mm +/- 1 mm	0.086 mm	40 mm	12.7 mm
Non-topcoated direct thermal receipt paper, black bar	100g/m ²	80 mm +/- 1 mm	0.086 mm	40 mm	12.7 mm
Topcoated direct thermal receipt paper	80g/m ²	80 mm +/- 1 mm	0.081 mm	40 mm	12.7 mm
Direct thermal polypropylene receipt, perforations	80g/m ²	80 mm +/- 1 mm	0.081 mm	40 mm	12.7 mm
Non-topcoated direct thermal receipt paper, black bar	100g/m ²	60 mm +/- 1 mm	0.086 mm	40 mm	12.7 mm
Direct thermal polypropylene receipt, non-perforated	80g/m ²	60 mm +/- 1 mm	0.081 mm	40 mm	12.7 mm

Appendix D

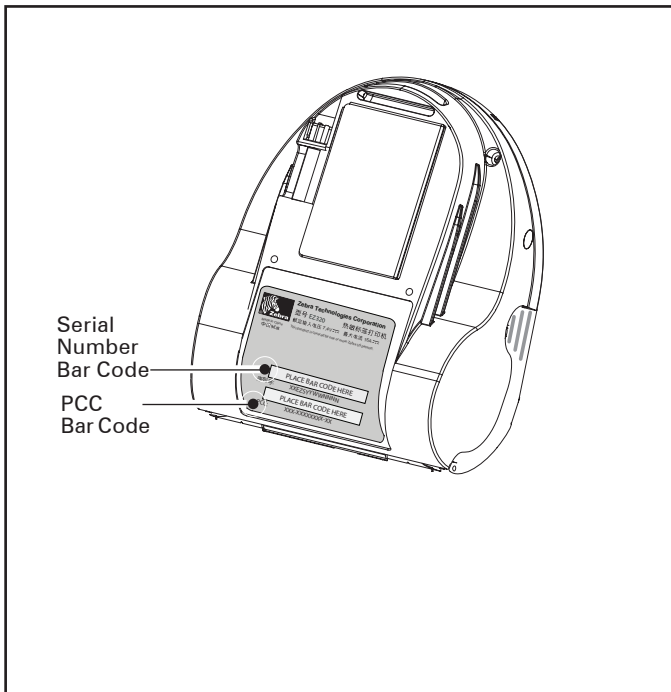
Product Support

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

- Model number/type (e.g. EZ320)
- Unit serial number
- Product Configuration Code (PCC)

For Product Support Contacts, see the table on the next page or contact your local re-seller.

EZ320 Serial Number Label



Product Support Contacts

In the Asia Pacific region contact

Regional Headquarters	Technical Support	Customer Service
Zebra Technologies Asia Pacific, LLC 120 Robinson Road #06-01 Parakou Building Singapore 068913 T: +65 6858 0722 F: +65 6885 0838	T: +65 6858 0722 F: +65 6885 0838 E: tsasiapacific@zebra.com	For printers, parts, media, and ribbon, please call your distributor, or contact us. T: +65 6858 0722 F: +65 6885 0837
Regional Office	Technical Support	Customer Service
Beijing China Regional Office Room 2103/2105 Global Trade Center Tower A 36 North Third Ring Road East Dongcheng District Beijing 100013, P.R. China T: +86 10 5825 7428 F: +86 10 5825 7429	T: +65 6858 0722 F: +65 6885 0838 E: tschina@zebra.com	For printers, parts, media, and ribbon, please call your distributor, or contact us. T: +65 6858 0722 F: +65 6885 0837
Guangzhou China Regional Office Room 3318, 33/F Office Tower China shine Plaza, 9 Linhexi Road Tianhe District, Guangzhou 510610, P.R.C. T: +86 20 3810 7798 F: +86 20 3810 7783	T: +65 6858 0722 F: +65 6885 0838 E: tschina@zebra.com	For printers, parts, media, and ribbon, please call your distributor, or contact us. T: +65 6858 0722 F: +65 6885 0837
Shanghai China Office Room 2308-2312 Plaza66 Tower2 1366 Nanjing Road(w) Shanghai 200040, P.R. China T: +86 21 5175 8558 F: +86 21 6288 8393	T: +65 6858 0722 F: +65 6885 0838 E: tschina@zebra.com	For printers, parts, media, and ribbon, please call your distributor, or contact us. T: +65 6858 0722 F: +65 6885 0837

Appendix E

Product Documentation

Please refer to Zebra's web site (see below) at www.zebra.com.cn/products for finding specific product documentation and software downloads for the EZ320 printer.



continued

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Patent Numbers

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



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