



**Zebra**<sup>®</sup> Cameo<sup>™</sup> Series  
Mobile Printers

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# User Guide



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The user is cautioned that any changes or modifications not expressly approved by Zebra Technologies could void the user's authority to operate the equipment. This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to insure compliance.

WARNING: EXPOSURE TO RADIO FREQUENCY RADIATION ON SOME MODELS. TO CONFORM TO FCC RF EXPOSURE REQUIREMENTS THIS DEVICE SHALL BE USED IN ACCORDANCE WITH THE OPERATING CONDITIONS AND INSTRUCTIONS LISTED IN THIS MANUAL.

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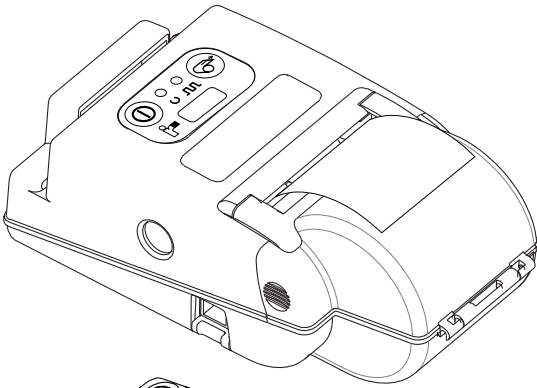
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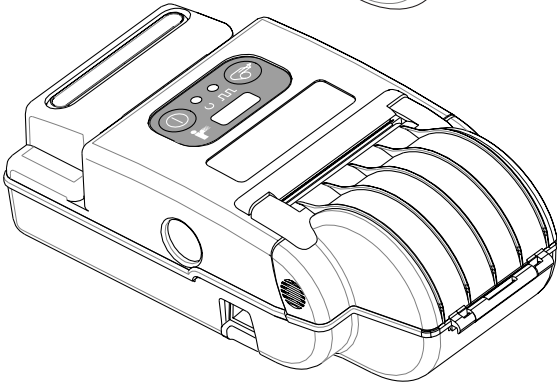
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# **Operation Section**

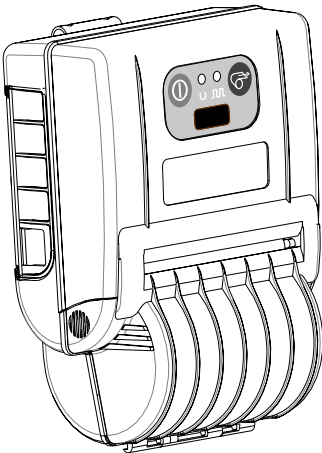
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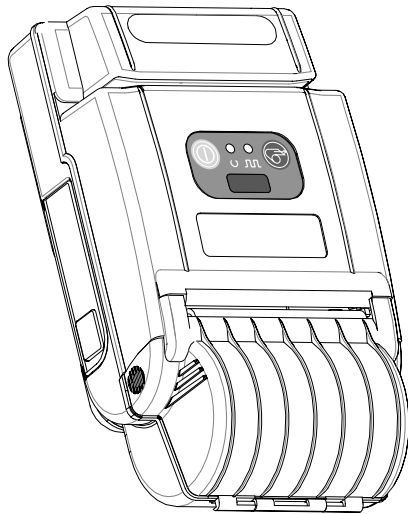
*Cameo 2 with optional  
Mag Stripe Reader and  
IR interface.*



*Cameo 2<sup>SC</sup> with Mag  
Stripe Reader, Smart  
Card Reader and IR  
interface.*



*Cameo 3*



*Cameo 3N (shown),  
Cameo 3<sup>SC</sup>*

# INTRODUCTION

The Cameo™2, Cameo 2<sup>SC</sup>, Cameo 3, Cameo 3<sup>SC</sup> and Cameo 3N Mobile Printers utilize the latest in direct thermal printing technology. These products are designed for mobile printing applications and their compact size is ideally suited to print receipts and for many other situations where on-site printing is required.

Additionally, Cameo<sup>SC</sup> printers can be ordered with an integrated magnetic stripe reader (MSR) and/or a Smartcard reader.

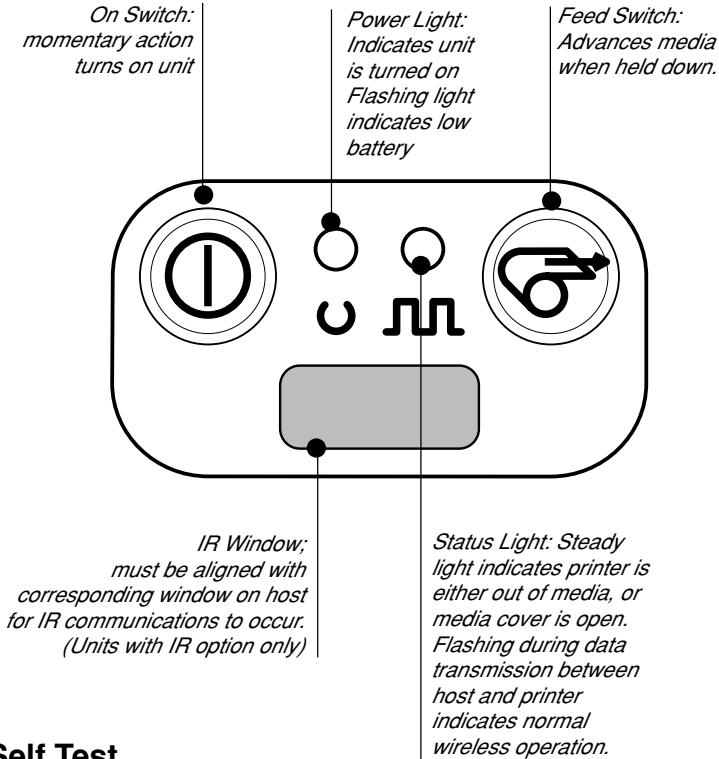
The Cameo series also offers wireless communications options such as Bluetooth™ or infrared (IrDA) interfaces.

The Cameo 3N Network Printer allows communication as a node within a Wireless Local Area Network (WLAN), and its wireless capabilities allow communications from any point within the LAN's perimeter.

This manual should be read in its entirety before attempting operation of this product. Further information regarding this printer series' features and operation can be found in the Mobile Printer Programming Manual (available on our website at: <http://www.zebra.com/SS/manuals.htm>)

# CONTROLS

## Keypad Functions



## Self Test

Cameos can perform a self test which will print a line of interlocking "x" characters to insure all elements of the print head are working, and then print out the version of software loaded in the printer. Refer to the Troubleshooting section for details on interpreting the self-test.

**The self test is activated by the following key sequence:**

1. Press the "FEED" key
2. While still holding down the "FEED" key, turn on the printer by pressing and releasing the "ON" key.
3. Keep the "FEED" key depressed until self test starts.

The Cameo will perform the self test and remain on.

# BATTERIES AND CHARGING

## Conditioning Battery Packs



*Cameo batteries must be cycled several times before maximum capacity is realized.*

*A battery is "cycled" by fully charging it, then fully discharging it through normal use.*

## Chargers

Listed below are the specifications for the Cameo series chargers:

### **UCN72-4:** ( p/n series AC15482-tab)

Designed to charge up to four batteries simultaneously. Battery packs may be charged separately or while plugged into the printer. Typical charge time is 90 minutes. Switch selectable 110/220 V.A.C. input voltage. Supplied with line cords compatible with most international standards.

*Do not attempt to charge batteries with the UC72-4 Charger while printing. Attempting to print while charging batteries can result in unreliable charging.*

UCN72-4 part numbers vary depending on specific country of use. Consult factory for complete part numbers.

### **UCN72:** ( p/n series AT15244-tab)

A wall mounted single charger with universal 110 to 230, 50-60 Hz. VAC input. Multiple plug configurations comply with most international standards.

*Do not attempt to charge batteries with the UC72N Charger while printing. Attempting to print while charging batteries can result in unreliable charging.*

UC72N part numbers vary depending on specific country of use. Consult factory for complete part numbers.

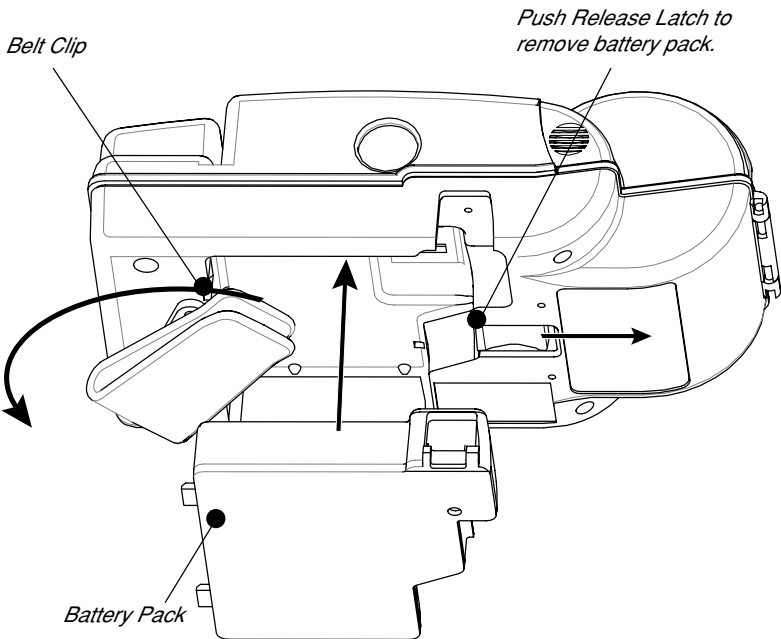
## Removing and Replacing Cameo 2 Battery Packs

To remove the battery pack from the Cameo 2:

1. Push the battery release button on the bottom of the printer towards the media compartment.
2. Rotate the belt clip as shown while,
3. Allowing the battery pack to slide out.

*Battery Packs are replaced by the following procedure:*

1. Rotate the Belt Clip to clear the battery
2. Align the battery pack to the bottom of the printer.  
The side of the battery with the contacts will face into the well for the battery.
3. Slide the pack completely into the printer until it locks in place. The battery will engage with a distinct “click”.
4. Rotate the Belt Clip back into position.



*REMOVING AND REPLACING CAMEO 2 SERIES BATTERY PACKS (CAMEO 2<sup>PC</sup> SHOWN.)*

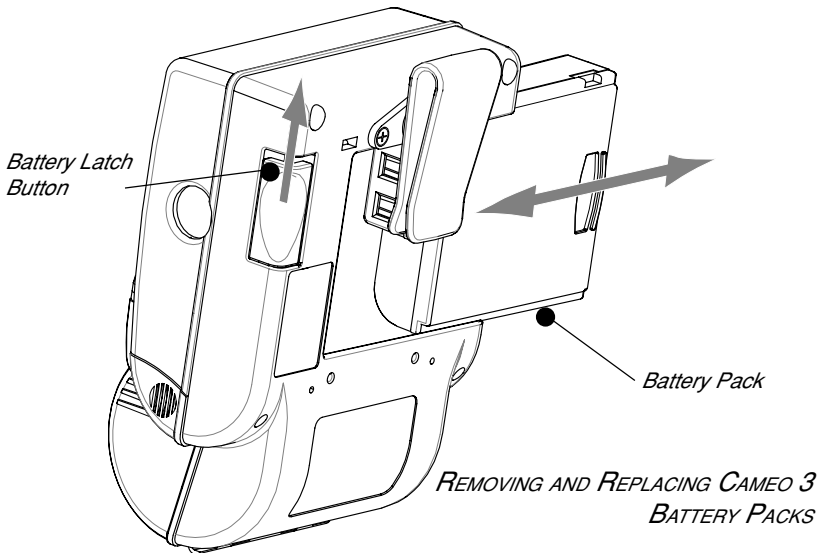
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## Removing and Replacing Cameo 3 Battery Packs

To remove the battery pack from the Cameo 3:

Slide the Battery Latch button in the direction shown in the top illustration below, and slide the battery out.

To replace the battery, insert the end with the contacts into the battery well and slide the battery into the printer until it clicks into place .



## Low Battery Shutdown

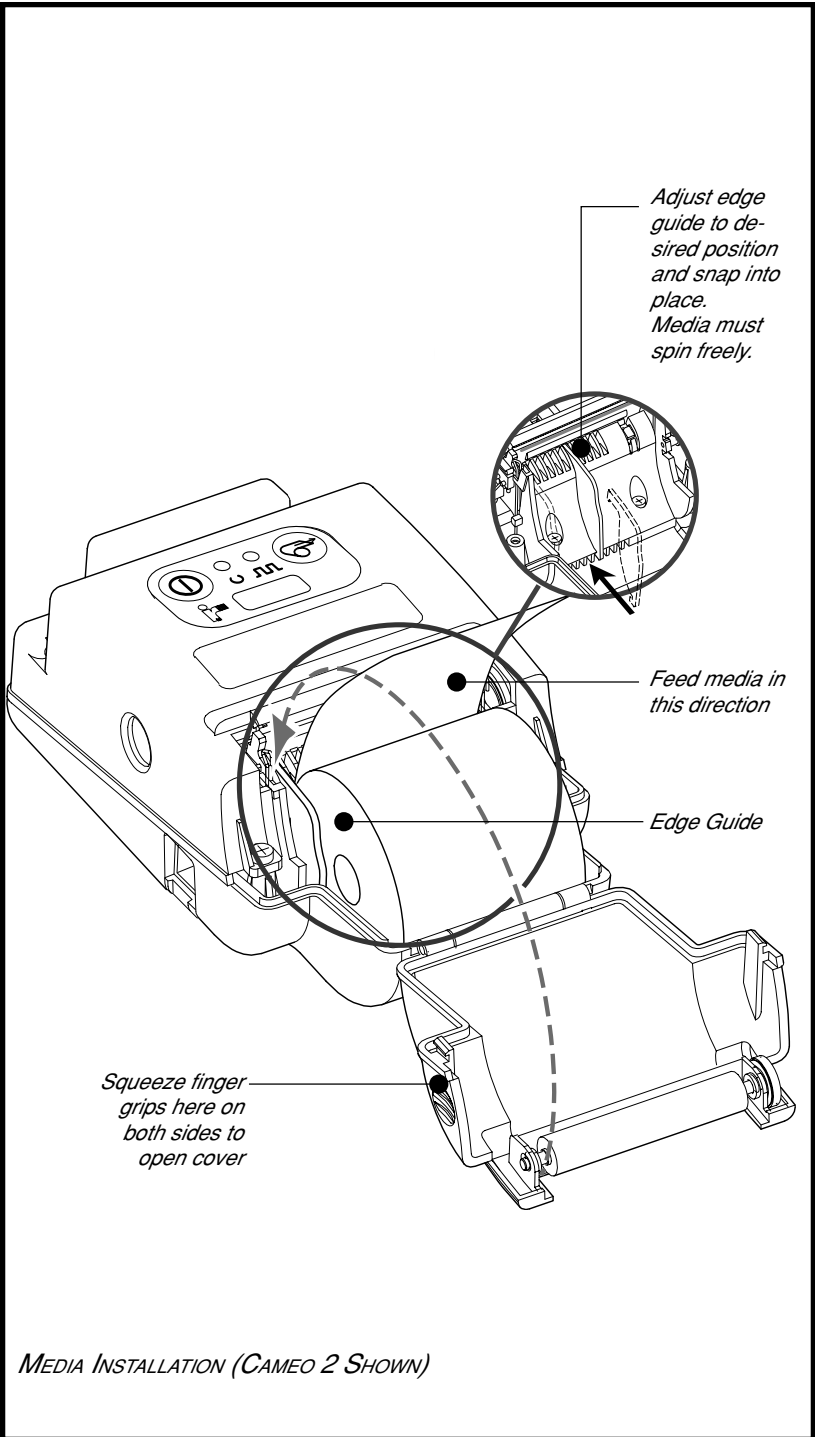
As the battery charge level becomes depleted the Power LED will flash. At this time the printer should be shut off and the battery pack recharged or replaced. Cameos will automatically shut off if the batteries become severely discharged.

## Safety Warnings



*Use of a charger not approved by Zebra for use with Cameo series NiMH batteries could damage the battery pack or the printer and will void the warranty.*

*Battery terminals are recessed to prevent short circuiting of the battery. Allowing these terminals to contact conductive material will create a short circuit which could cause burns, other injuries or start a fire.*



## INSTALLATION OF MEDIA

The following details media installation:

*Cameo 2 is illustrated. Loading procedure is identical for all units.*

1. Turn unit off.
2. Squeeze the two finger grips on either side of the media compartment cover. Rotate the top back to reveal the paper compartment.
3. If necessary, adjust the edge guide as shown at left for narrow media.

The edge guide should be set into the nearest slot in the printer body that will allow the media roll to spin freely yet prevent it from wandering from side to side so much that print quality is affected.

4. Drop a new roll of paper into the compartment. Media should feed from the top of the roll and the roll should fit between the edge guide and the right hand wall.

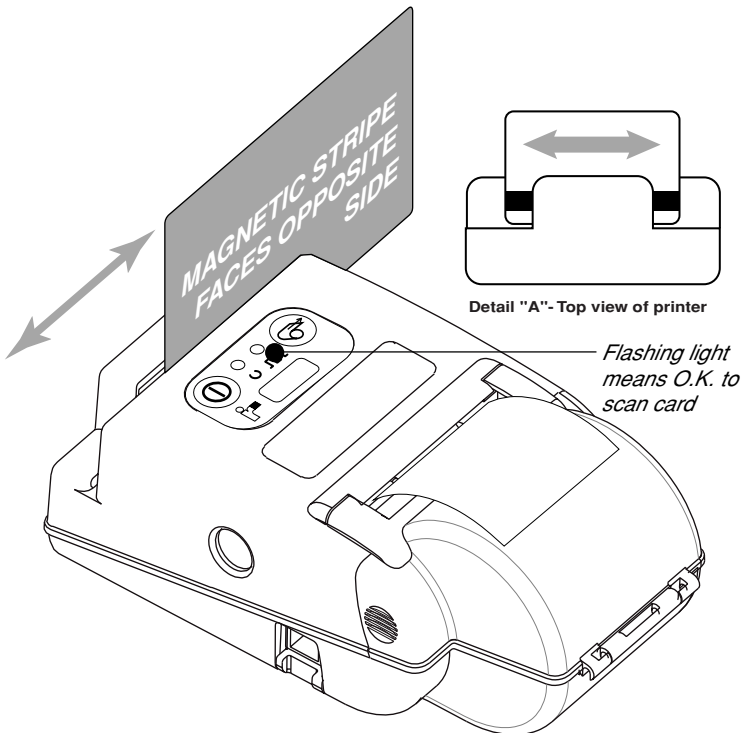
*The inner core on the media roll should be  $\varnothing.75"$  [ 19 mm] or larger to prevent the roll from jamming.*

5. Close the cover while holding the free end of the media roll.
6. Insure the cover is securely latched before beginning to print.

# MAGNETIC STRIPE READER

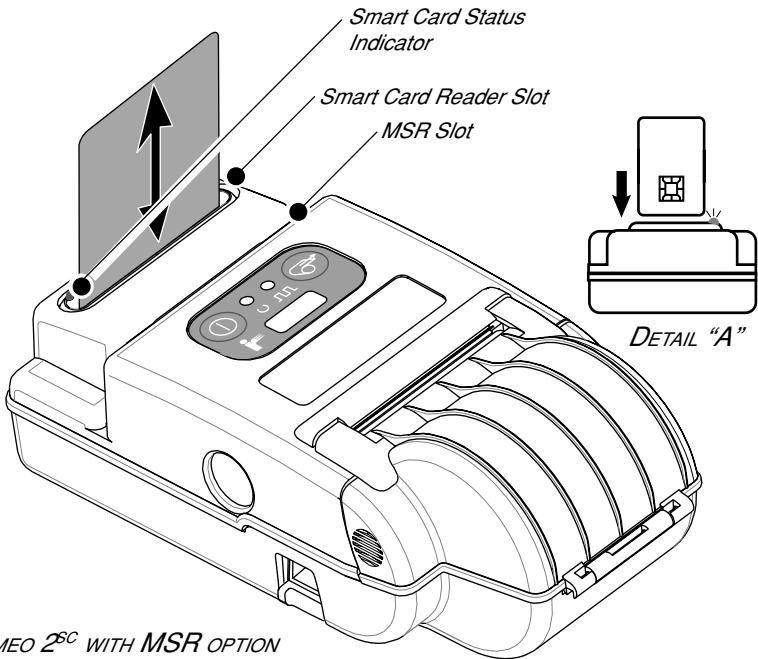
The optional magnetic stripe reader (MSR) is used as follows:

1. A flashing status light indicates the printer is available to scan. Place the card into the reader slot as shown. The magnetic stripe must face the top of the printer, and into the body of the printer as shown in Detail "A" below.
2. Slide the card through the slot. The card will be read if slid in either direction. Depending on the application software, the receiving terminal will sound a beep on a successful scan.
3. If the card did not read, slide it back through the slot in the opposite direction.



*CAMEO 2 WITH MSR OPTION*

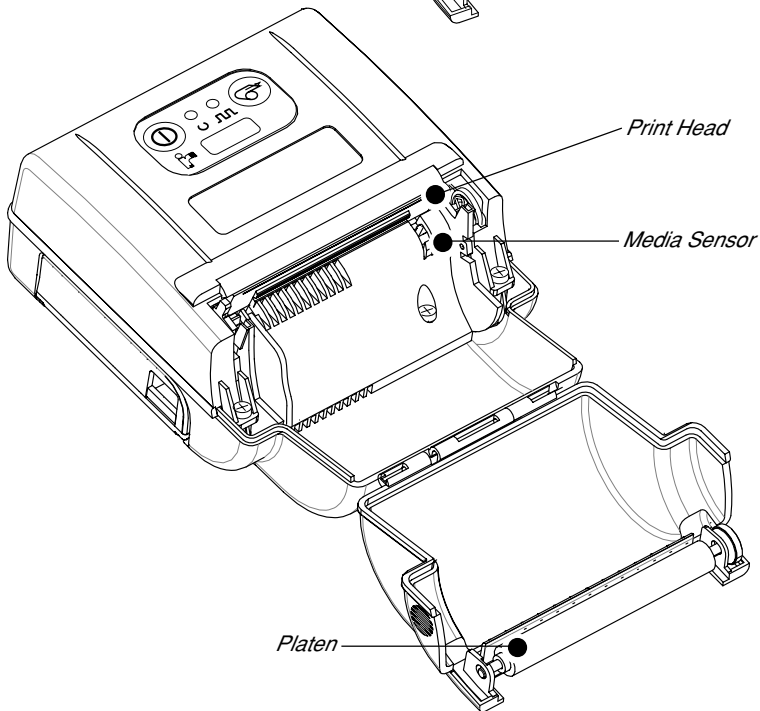
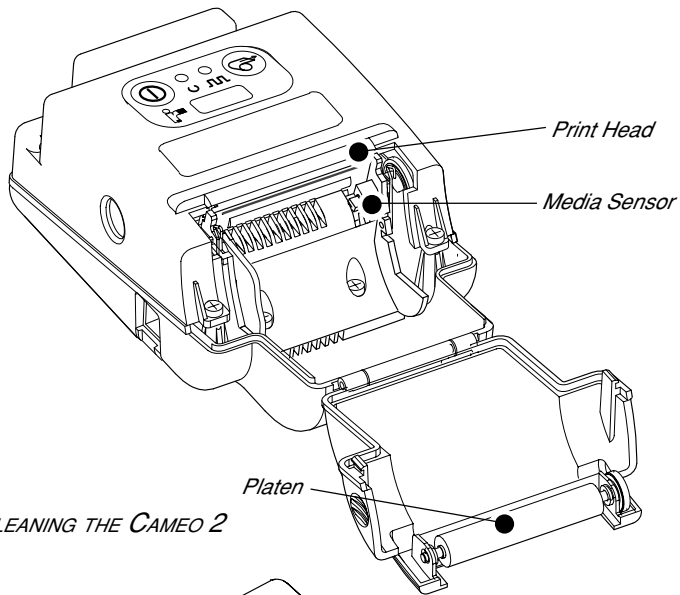
# SMARTCARD READER



*CAMEO 2<sup>SC</sup> WITH MSR OPTION*

The Smartcard reader (only available on Cameo<sup>SC</sup> models ) is used as follows:

1. A status light indicates the Smartcard reader is available. At this time, the Cameo is acting only as a Smartcard reader connected to the host terminal; all other printer functions are suspended.
2. Insert the card into the reader slot as shown in Detail "A" above. The microchip imbedded in the card must be oriented facing the top of the printer and must be completely inserted into the Reader Slot to scan successfully .
3. Depending on the application software, the receiving terminal will sound a beep after a successful transaction.
4. When the Smartcard indicator light goes out, the Cameo can resume normal printing operations and the Smartcard can be removed.



# MAINTENANCE

Cameo printers will provide years of reliable service provided a few simple guidelines are followed. The printer should be cleaned approximately every two weeks or more often, depending on usage and the type of media being employed. Components of the printer that require periodic maintenance are the print head, print roller (platen), and the media sensor. When cleaning, please use only isopropyl alcohol, the same type included in the Cleaning Kit. Always use Zebra label or ticket stock for maximum print quality and extended printer life.



*Never use any sharp objects on printer mechanism as it could damage the print head and platen. Use only the supplied cleaning pen or a cotton swab saturated with alcohol for cleaning. Always turn the printer off prior to any cleaning operation.*

## **Cleaning the print head**

- Always turn the printer off prior to any cleaning operation.
- Open the printer by squeezing the finger grips on either side of the media compartment cover.
- Swing the media compartment cover open.
- Use the cleaning pen supplied with the printer and/or alcohol and cotton swabs to clean the surface of the print head, the platen, and the sensor.

## **Cleaning the platen (print roller)**

*Applies to printers configured for lined media only*

- Open the printer by squeezing the finger grips on either side of the media compartment cover and swinging it open.
- Gently clean the platen with the cleaning pen supplied with the printer and/or alcohol and a cotton swab while rotating the platen.

*continued next page*

## **Cleaning the Media Sensor**

The Media sensor is located inside the media compartment under the print head. Blow out any dust deposits carefully, then finish cleaning with the cleaning pen supplied with the printer and/or alcohol and cotton swabs.

## **Linerless Media Printers**

Printers using linerless media require more frequent cleaning. Linerless media deposits adhesive which must be removed for optimum performance. Linerless printers can be identified by a platen which is *not* black, or by reading the unit's fifteen digit Product Configuration Code (PCC) label on the back of the printer. PCC digit "8" will be "B", "D", "F", or "H" for linerless printers.

*Note: It is not necessary to clean the platen on linerless units. The platen material is self cleaning and will not require constant maintenance.*

*When cleaning, use only the Cleaning Pen provided with each printer or isopropyl alcohol.*

- Open the printer by squeezing the finger grips on either side of the media compartment cover.
- Surfaces inside the media compartment that come in contact with the linerless media adhesive should be cleaned, along with:
  - Print mechanism area around the Sensor
  - Printhead
  - Inside surface of the edge guide

Allow printer to dry before resuming printing.

# TROUBLESHOOTING

## Self Test:

Perform the self test as described in the Controls section. The unit should print a line of interlocking “x” characters to insure all elements of the print head are working, print out the version of software loaded in the printer and then print two reports. The first report indicates model, ROM version, serial number, baud rate, etc. The second report contains application information. If no second report appears, there is no application loaded.

Cameo 3N units will also print out a “RF LAN Information” section with information regarding the printer’s status on your facility’s wireless Local Area Network (WLAN).

## Troubleshooting Guide

### *No power*

- Check battery, recharge or replace as necessary.

### *Media does not feed:*

- Be sure media compartment cover is closed and latched.

### *Poor or faded print:*

- Clean print head.
- Check/replace battery.
- Check quality of media.

### *Partial/missing print:*

- Check media alignment
- Clean print head.
- Verify media compartment cover is closed and latched

### *Prints illegible characters:*

- Check baud rate.

### *No print:*

- Check baud rate
- Replace battery
- Check cable connection to terminal
- Wireless units: verify communication link between printer and terminal

*continued*

- Network printers: refer to the RF LAN Information section of the Self Test printout to verify the printer's SSID and IP addresses are correct, and that the printer is "associated" with the wireless LAN.
- Invalid label format or command structure — use Hex Dump Mode for troubleshooting. Refer to the Programming Manual for more information.

### ***Reduced battery charge life:***

- Recondition (cycle) battery.
- Damaged battery-replace.
- Check battery date code: if one to two years old, short charge life may be due to normal aging.

### ***Status light flashing and beeper chimes:***

- No application: reload program.

### ***Status light flashing***

- If using SRRF communications: normal indication while data is being received.

### ***Status light always on:***

- Check media is loaded and media compartment cover is closed and latched

### ***Communication Error:***

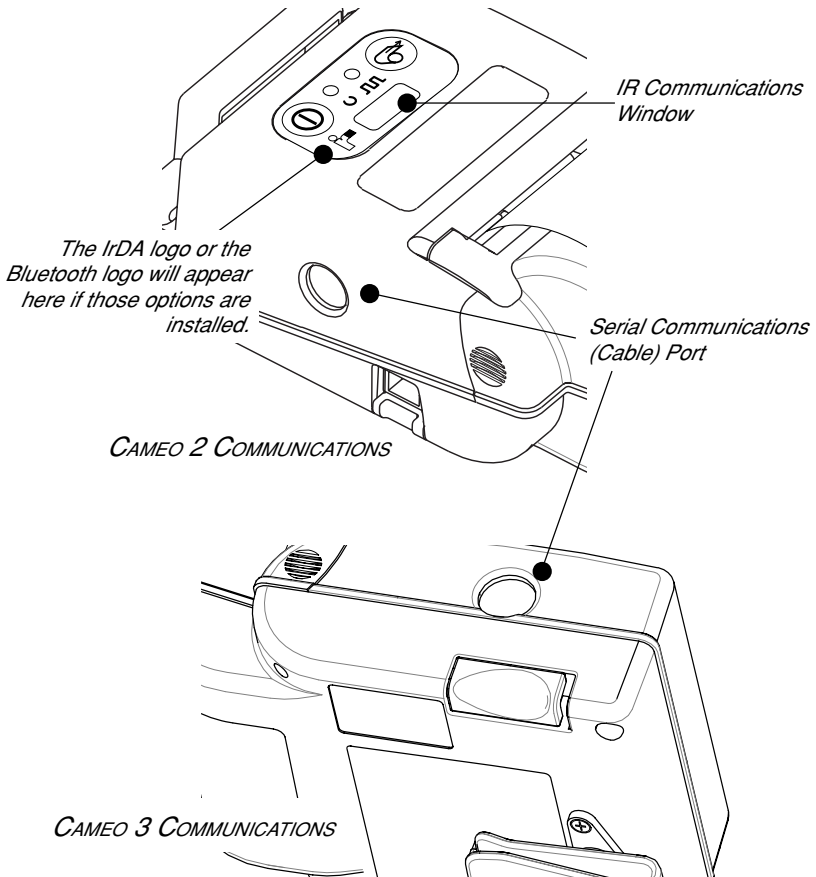
- Check media is loaded, media compartment cover is closed and latched, and error light is off.
- Check baud rate.
- Replace cable to terminal.



*Never use any sharp objects on the printer mechanism as it could damage the print head. Use only isopropyl alcohol, the supplied cleaning pen and /or a cotton swab for cleaning the printer.*

## COMMUNICATING TO THE PRINTER

The printer must establish communications with a host terminal which sends the data to be printed. Communications occur in three basic ways:



- By a cable between the printer and its host terminal
- Infrared (usually by means of the industry standard IrDA protocol) Units with the IrDA option can be identified by the “IR” logo on the unit’s keypad.
- Using Bluetooth™ wireless communications. Cameros with the Bluetooth option will have a Bluetooth

*continued next page*

logo on the lower left corner of the keypad.

- By means of a wireless LAN (Local Area Network) (Cameo 3 Network Printers only) Cameo 3 Network printers are identified by a “Cameo 3N” logo, and an extension to the bottom cover.

## **Cable Communications**

All Cameo printers can communicate by cable; the specific cable supplied with your printer will vary with the host terminal. The 8-pin circular connector on your communications cable plugs into the serial communications port on the side of the Cameo printer. (Refer to the Specifications Section of this manual for communications port pin assignments.)

The connector is keyed to assure correct alignment; do not try to force it if it does not plug in. The other end of the cable must be plugged into the host terminal. Communications between the terminal and the printer is controlled by the applications running on the terminal and the printer.

## **IR Communications**

Printers equipped for infrared (IR) communications are identified by a small “IR” logo on the unit’s keypad. IR allows wireless communications between the printer and the host terminal. IR units can also communicate with a cable as detailed above, however, IR functions are disabled when the cable is plugged in. Cameo units with the IR option can be configured to conform to the standard IrDA communications protocol

### *Linking a Printer to an IrDA Host*

IrDA compliant terminals will automatically initiate communications to the printer. First insure that there is a direct line of sight between the printer and the terminal that will be sending data. The IR window on the front of the Cameo must face the corresponding window on the terminal to properly send and receive signals. An IrDA compliant terminal will seek out any linkable devices and establish communications between them, even turning the printer on if necessary.

*continued next page*

# Wireless Communications with Bluetooth™ using ZBR Radio

The following section only applies when the Bluetooth ZBR Module (FCC ID: I28MD-BTC2-E) is installed in the Cameo printer (note that only one of the radio options can be installed in the printer at one time).

“Bluetooth” is a worldwide standard for the exchange of data between two devices via radio frequencies. Bluetooth radios are relatively low powered to help prevent interference with other devices running at similar radio frequencies. This limits the range of a Bluetooth device to about 10 meters (about 32 feet).

Both the printer and the device it communicates with must follow the Bluetooth standard.



### *Exposure to Radio Frequency Radiation*

*The radiated output power of this internal Bluetooth radio is far below the FCC radio frequency exposure limits. Nevertheless, this Bluetooth radio must be used in such a manner that the antenna is 2.5 cm or further from the human body.*

*The radio and antenna are mounted internally in this printer such that when the printer is worn with the back of the printer against the body and the front of the printer (where paper exits) away from the body, then the 2.5 cm distance between the antenna and the users body will be met. Do not use the printer in an unauthorized manner.*

*The internal Bluetooth radio operates within guidelines found in radio frequency safety standards and recommendations. The level of energy emitted is far less than the electromagnetic energy emitted by other wireless devices such as mobile phones.*

## *European Regulatory Information for this Radio*

AUS	B	DK	FIN
<del>F</del>	D	GR	IRE
I	LUX	NL	P
E	S	UK	

CE 0682 ⓘ

**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.

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, ICE, LI, NOR**)

## *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 radio in France is subject to additional restrictions. You may only use the radio in French territory when it is set to reduced power. If the radio is contained in a printer, then the power setting will print out on the two-key report as either “Normal” or “Reduced (France)”.

*continued next page*

# Wireless Communications with Bluetooth™ using ZBR-2 Radio

The following section only applies when the Bluetooth Module (FCC ID: I28MD-BTC2TY) is installed in the Cameo printer (note that only one of the radio options can be installed in the printer at one time).

“Bluetooth” is a worldwide standard for the exchange of data between two devices via radio frequencies.

Bluetooth radios are relatively low powered to help prevent interference with other devices running at similar radio frequencies. This limits the range of a Bluetooth device to about 10 meters (about 32 feet).

Both the printer and the device it communicates with must follow the Bluetooth standard.



### *Exposure to Radio Frequency Radiation*

*The radiated output power of this internal Bluetooth radio is far below the FCC radio frequency exposure limits. Nevertheless, this Bluetooth radio must be used in such a manner that the antenna is 2.5 cm or further from the human body.*

*The radio and antenna are mounted internally in this printer such that when the printer is worn with the back of the printer against the body and the front of the printer (where paper exits) away from the body, then the 2.5 cm distance between the antenna and the users body will be met. Do not use the printer in an unauthorized manner.*

*The internal Bluetooth radio operates within guidelines found in radio frequency safety standards and recommendations. The level of energy emitted is far less than the electromagnetic energy emitted by other wireless devices such as mobile phones.*

### *European Regulatory Information for this Radio*

AUS	B	DK	FIN
F	D	GR	IRE
I	LUX	NL	P
E	S	UK	

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, ICE, LI, NOR)

**CE 0336**

**Important Notice:**

This device is a portable RF printer intended for commercial and industrial 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.


## **Bluetooth™ Networking Overview**

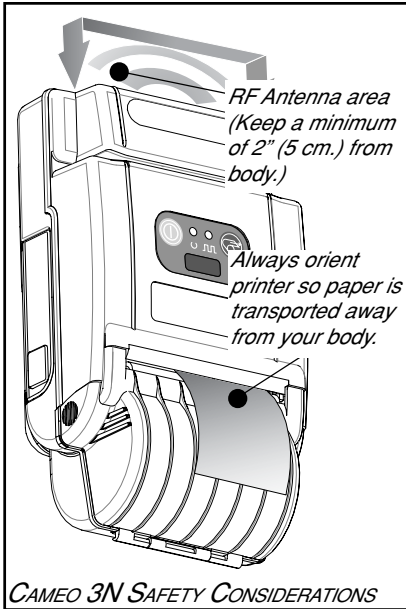
In order to exchange data, two Bluetooth enabled devices must establish a connection. Bluetooth software is always running in the background, ready to respond to connection requests. One device (known as the *master* or the *client*) must request a connection with another. The second device (the *slave* or the *server*) then accepts or rejects the connection. A Bluetooth enabled QL 320 will normally act as a slave, but in theory any Bluetooth device can be either a master or a slave. This miniature network is sometimes referred to as a “piconet” and can consist of several Bluetooth enabled devices.

Each Bluetooth enabled Cameo printer has a unique Bluetooth Device Address (BDA) loaded into its radio module when manufactured. For the most part, communications using the Bluetooth protocol are initiated and processed without any operator intervention, much like the IrDA system described previously.

## Wireless Local Area Network (WLAN)

Printers equipped for Wireless Local Area Network (WLAN) communications are known as Cameo 3N Network Printers. Cameo 3N printers allow wireless communication as a node within a local area network, and its wireless capabilities allow communications from any point within the LAN's perimeter. Methods of establishing communications to the Cameo 3N will vary with each LAN application.

 **WARNING:** Use of the Cameo 3N will result in exposure to Radio Frequency radiation. To conform to FCC RF exposure requirements the printer must be used only in the intended orientation and in the intended manner.



Cameo 3N printers are identified by a rectangular pod on the bottom of the printer containing the radio module. The printer's serial number label on the back of the unit will show the radio module's identification numbers and/or its operating frequency.

The Cameo 3N is designed to be used with a shoulder strap and specially designed soft case, or with a belt clip. The printer should always be

oriented so that printed material is transported *away* from the operator. Avoid prolonged exposure closer than 5 cm. (2") to the radiating area around this unit's antenna.

When the Cameo 3N is used as designed, either the printer's soft case or the belt clip will keep the antenna the FCC mandated distance away from the operator.

# PRINTER SPECIFICATIONS

## Physical

	<b>Cameo 2</b>	<b>Cameo 2<sup>SC</sup></b>	<b>Cameo 3/ 3<sup>SC</sup>/ 3N</b>
Height	6.6" (168 mm)	7.3" (185 mm)	6.2" (158 mm) (3) 8.2" (208 mm)(3 <sup>SC</sup> ,N)
Width	3.7" (94 mm)	3.7" (94 mm)	4.6" (117 mm)
Depth	2.6" (66 mm)	2.6" (66 mm)	2.6" (66 mm)(3, 3 <sup>SC</sup> ) 3.5" (89 mm) (3N)
Weight*	1.15 lbs. (.5 kg)	1.35 lbs (.6 Kg)	1.4 lbs. (.64 kg) (3) 1.6 lbs (.73 kg) (3 <sup>SC</sup> ) 1.9 lbs. (.86 kg.) (3N)
* Weight is with battery, no media loaded			

## Environmental

Operating temperature:	5° to 122°F (-15° to 50°C)
Storage temperature:	-13° to 158°F (-25° to 70°C)
Relative humidity:	10%-90% non-condensing

Cameos automatically compensate for head temperature when printing. Protection circuitry prevents damage due to excessive print head temperatures.

## Printing Characteristics

	<b>Cameo 2, 2<sup>SC</sup></b>	<b>Cameo 3/3N</b>
Print Head Width:	1.9" (48 mm)	2.83" (72 mm)
Number of Dots:	384	574
Print Head Life (estimated)	1,950,000" (50 Km nominal)	
Technology	Direct Thermal	
Print Speed	up to 3 IPS (76.2 mm/sec.)	
Print Head Density	203 DPI (8 dots/mm)	

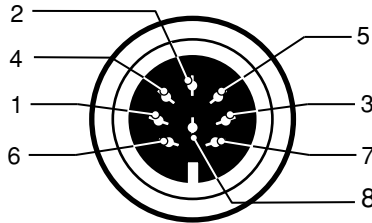
## Communications Specifications

Standard Communications	<p>Built-in RS-232 port for one or two-way cable communication to terminal or other host up to 38.4K BPS.</p> <p>Programmable RTS/CTS (hardware) and XON/XOFF protocols are supported. Default communications parameters are:</p> <p>Handshaking = RTS/CTS, Baud Rate = 19,200</p> <p><b>Parity = None; Data Bits = 8; Stop Bits = 1</b></p>
Optional Wireless Communications	<p>Optional infrared communications via industry standard IrDA specifications.</p> <p>Optional Bluetooth radio</p> <p>Wireless LAN via 802.11b protocol (Cameo 3 only)</p>

*continued*

## Communications Port

Pin Number	Pin Name	Signal Type	Signal Description
1	RXD	input	Receive Data
2	TXD	output	Transmit Data
3	CTS	input	Clear To Send from host
4	RTS	output	Request To Send set high when printer is ready to accept command/ data
5	GND		Ground
6	NC		No Connect
7	DSR	input	Data Set Ready: Low to high transition turns printer on, High to low transition turns printer off (if enabled)
8	DTR	output	Data Terminal Ready high when printer is on (set at battery voltage for "S" models)



*COMMUNICATIONS PORT  
(8 PIN CIRCULAR DIN)*

## Power

Cameos utilize removable NiMH battery packs. If not connected to a terminal with DTR present, the Cameo will automatically power off to conserve battery life. The time-out value can be programmed from the host terminal; the factory default time-out is two minutes.

Additional power features include:

- Full charge will print approximately 3000" (76 m) of receipt stock.
- Low battery indicated by flashing LED and reported to terminal on demand
- Power On/Off controlled from terminal or keypad

## Media Specifications

	Cameo 2	Cameo 3
Max. Print Width	1.9" (48.3 mm)	2.83" (71.9 mm)
Max. Roll O.D.	2.25" [57 mm]	2.25" [57 mm]
Core Diameter	.75" [19 mm] min.	.75" [19 mm] min.

Media Width settings available with edge guide (all dimensions  $\pm 0.05''$  [ $\pm 1.3$  mm])

<b>Cameo 2 series</b>	<b>Cameo 3 series</b>
0.72 (18.2 mm)	1.47 (37.3 mm)
0.85 (21.6 mm)	1.60 (40.64 mm)
0.97 (24.6 mm)	1.72 (43.7 mm)
1.10 (27.9 mm)	1.85 (47.0 mm)
1.22 (31.0 mm)	1.97 (50.0 mm)
1.35 (34.3 mm)	2.10 (53.3 mm)
1.47 (37.3 mm)	2.22 (56.4 mm)
1.60 (40.64 mm)	2.35 (59.7 mm)
1.72 (43.7 mm)	2.47 (62.7 mm)
1.85 (47.0 mm)	2.60 (66.0 mm)
1.97 (50.0 mm)	2.72 (69.1 mm)
2.13 (54.1 mm) <sup>1</sup>	2.85 (72.4 mm)
	2.97 (75.4 mm)
	3.10 (78.7 mm) <sup>1</sup>

1. This width available only with edge guide removed.

## Media Type

- Paper Journal
- Two-part thermal receipts
- Linerless labels (on linerless models only)
- Drop-in stock loading

## Resident Hardware/Memory Features

- 25 Resident fonts
- Optional international character fonts
- Flash memory for down-loadable programs, label formats, fonts and graphics
- Fully scalable fonts
- Built-in graphics support

## Software Features

- Vertical or horizontal printing
- Left, right, or center justification
- Scale to fit
- Concatenation
- Line print mode- ideal for receipt printing
- Programmable label odometer with on-demand terminal reporting
- Serial number reporting to terminal on demand
- Automatic print head temperature compensation
- Programmable inactivity shut-off
- Out of paper/open cover error LED indicator
- Power On/Off from terminal or built-in keypad

*continued*

## **Accessories and Options**

- Single battery pack fast charger/conditioner
- Four battery pack fast charger/conditioner
- Vehicle Charger
- Extra NiMH battery pack
- Variety of interface cables
- IrDA Option
- Bluetooth™ wireless interface option
- Optional wireless LAN (802.11b) capabilities
- Soft carrying case
- Protective rubber boots for severe use

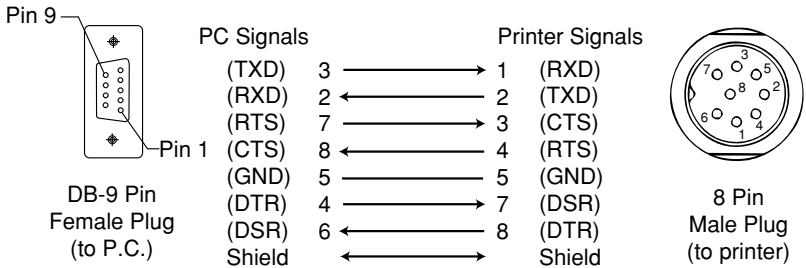
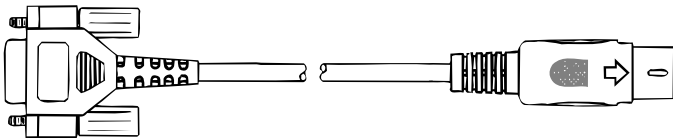
# APPENDIX A

## INTERFACE CABLES

Part Number BL11757-000  
8-Pin DIN to 9-Pin DB PC Cable

This part is also available as a coiled cable under  
Part Number BL15063-1.

For Use With a Personal Computer



# APPENDIX A

## INTERFACE CABLES

Terminal	Cable Part Number	Cord Lgth/Type	Terminal Connector	Printer Connector	Notes
COMPSEE					
Apex II	BL12093-3	8' Coiled	RJ45	8 Pin DIN	
NORAND					
RT1100/1700 Series	BL11537-1	8' /Coiled	6 Pin MiniDIN	8 Pin DIN Over-molded	
RT1100/1700 Series	BL11537-2	12' /Coiled	6 Pin MiniDIN	8 Pin DIN Over-molded	
RT5900 Series	BL12803-1	8' /Coiled	15 Pin D-Sub	8 Pin DIN	
RT1100/1700 Series	BL12804-1	8' /Coiled	6 Pin MiniDIN	8 Pin DIN -Locking	
RT1100/1700 Series	BL13298-1	8' /Coiled	6 Pin MiniDIN	8 Pin DIN Over-molded	Auto ON/OFF
RT1100/1700 Series	BL13309-1	8' /Coiled	6 Pin Mini DIN	8Pin DIN	Auto ON/OFF
SYMBOL					
PDT3300 Series	BL11391-000	8' /Coiled	DB25 male	8 Pin DIN	Must be used with Symbol RS232
PDT4100 Series	BL11757-000	6' /Straight	9 Pin DB Fern.	8 Pin DIN	Adapter - Symbol PN#25-12059-01
PDT3100/3500 /6100 Series	BL12093-1	8' /Coiled	RJ45	8 Pin DIN	a. Power On/Off (+5V) b. Used for the Percon Falcon
PDT3100 Series	BL12093-2	8' /Coiled	RJ45	8 Pin DIN	Power On/Off (DTR Line)
SPT1700 Series	BL15483-1	9' /Coiled	Cradle	8 Pin DIN	No Power On/Off (DTR Line)
SPT2700 Series	BL15482-1	9' /Coiled	Cradle	8 Pin DIN	Power On/Off (DTR Line)
LRT/LDT3800 Series	CC11371-3	6' /Coiled	PIM Optical	8 Pin DIN	"S" Printers Only
LRT/LDT3800 Series (2 Way)	CC11371-4	6' / Coiled	PIM Optical	8 Pin DIN	"S" Printers Only

# APPENDIX A

## INTERFACE CABLES (continued)

Terminal	Cable Part Number	Cord Lgth/Type	Terminal Connector	Printer Connector	Notes
SYMBOL (CONT.)					
LRT/LDT3800 & 6800 Series	CC11371-5	6' / Coiled	PIM Optical	8 Pin DIN	"S" Printers Only
TEKLOGIC					
7030 ILR	BL13285-2	Coiled	36 Pin IDC Fem	8 Pin DIN	
7025 ILR	BL13285-1	Coiled	15 Pin DB male	8 Pin DIN	
TELXON					
960	BL11122-1	8' / Coiled	RJ45	8 Pin DIN	
960SL Adapter for BL1122-1	CC13711-1	n/a	n/a	n/a	
960 (BL1122-1) & 960SL (CC13711-1)	CP74005	n/a	n/a	n/a	
960	BL12996-1	8' / Coiled	RJ45	8 Pin DIN-Locking	
860 & 912	CL11314-000	8' / Coiled	DB25	8 Pin DIN	

## 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. These 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 call 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 print head be cleaned as prescribed in the maintenance section. The following items are available for this purpose:

- Cleaning Pen (10 pack), Reorder No. AN11209-1  
*(Recommended for use with Bravo™, Cameo™ and Encore™ printers.)*
- Cleaning Kit with Cleaning Pen, and Cotton Swabs, Reorder No. AT702-1  
*(Recommended for use with Bravo™, Cameo™ and Encore™ printers.)*

## APPENDIX D

### PRODUCT SUPPORT

For product support, contact Zebra Technologies at:

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

#### **Zebra Technologies International, LLC**

333 Corporate Woods Parkway  
Vernon Hills, Illinois 60061-3109 USA  
Phone: +1.847.793.2600 or +1.800.423.0442  
Fax: +1.847.913.8766

#### **Zebra Technologies Europe Limited**

Zebra House  
The Valley Centre, Gordon Road  
High Wycombe  
Buckinghamshire HP13 6EQ, UK  
Phone: +44.1494.472872  
Fax: +44.1494.450103

#### **Zebra Technologies**

Latin American Sales Office  
6175 NW 153rd Street  
Suite 121  
Miami Lakes, Florida 33014 USA  
Phone: +1.305.558.8470  
Fax: +1.305.558.8485

#### **Zebra Technologies Asia Pacific, LLC**

1 Sims Lane, #06-11  
Singapore 387355  
Phone: +65-68580722  
Fax: +65-68850838

# PATENT INFORMATION

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	5,364,133	5,543,610	6,034,708
D347,021	5,047,617	5,367,151	5,545,889	6,036,383
D389,178	5,103,461	5,372,439	5,552,592	6,057,870
D430,199	5,113,445	5,373,148	5,570,123	6,068,415
D433,702	5,140,144	5,378,882	5,578,810	6,070,805
3,964,673	5,132,709	5,396,053	5,589,680	6,095,704
4,019,676	5,142,550	5,396,055	5,612,531	6,109,801
4,044,946	5,149,950	5,399,846	5,642,666	6,123,471
4,360,798	5,157,687	5,408,081	5,657,066	6,147,767
4,369,361	5,168,148	5,410,139	5,768,991	6,151,037
4,387,297	5,168,149	5,410,140	5,790,162	6,201,255 B1
4,460,120	5,180,904	5,412,198	5,791,796	6,231,253 B1
4,496,831	5,229,591	5,415,482	5,806,993	6,261,009
4,593,186	5,230,088	5,418,812	5,813,343	6,261,013
4,607,156	5,235,167	5,420,411	5,816,718	6,267,521
4,673,805	5,243,655	5,436,440	5,820,279	6,270,072 B1
4,736,095	5,247,162	5,444,231	5,848,848	6,285,845 B1
4,758,717	5,250,791	5,449,891	5,860,753	6,292,595
4,816,660	5,250,792	5,449,893	5,872,585	6,296,032
4,845,350	5,262,627	5,468,949	5,874,980	6,364,550
4,896,026	5,267,800	5,479,000	5,909,233	6,379,058 B1
4,897,532	5,280,163	5,479,002	5,976,720	6,409,401 B1
4,923,281	5,280,164	5,479,441	5,978,004	6,411,397 B1
4,933,538	5,280,498	5,486,057	5,995,128	6,428,227 B2
4,992,717	5,304,786	5,503,483	5,997,193	6,530,705
5,015,833	5,304,788	5,504,322	6,004,053	6,540,122
5,017,765	5,321,246	5,528,621	6,010,257	6,607,316
5,021,641	5,335,170	5,532,469	6,020,906	6,609,844



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

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