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ZEBRA MOBILE LINE RW SERIES PRINTER SPECIFICATIONS

Specifications are provided for reference and are based on printer tests using Zebra brand stock and labels. Results may vary in actual application settings or when using other than recommended Zebra supplies. Zebra recommends always qualifying any application with thorough testing.

Standard Features

- 203 dpi print resolution (8 dots/mm)
- Direct thermal printing of bar codes, text, and graphics
- CPCL(standard), EPL and ZPL(emulations) programming languages
- 4 MB Flash for downloadable programs, receipt formats, scalable fonts and graphics
- 8 MB DRAM
- 7.4 V, 4.0 AHr removable, rechargeable Li-Ion battery
- Serial RS-232 (RJ-45)10 pin
- Standard USB 2.0 full speed
- Resident Scaleable Fonts
- Flexible Ordering & Configuration options tailored to meet user's present and future application requirements.
- Print speeds of up to 3 ips
- Tear bar for easy receipt dispensing
- Supports vertical or horizontal printing
- Power on/off from printer keys, terminal or host
- Center- loading media locking for variable roll widths
- "Clamshell" design for easy loading
- IP54 environmental rating (resistance to water and dust)
- Tolerance of multiple drops up to 6' to concrete
- 4 button angled LCD
- Smart battery management
- Advanced 32-bit architecture for high speed processing



- Magnetic Stripe Reader and EMV-certified Smart Card Reader
- Fanfold media support
 - Wireless Connectivity Options:
 - ⇒ Bluetooth
 - ⇒ 802.11b Wireless LAN

ZebraLink Solutions

Software

Label Vista – Easy-to-use software program for designing label formats.

ZebraNet Bridge Enterprise – Centrally manage Zebra printers from a single PC screen anywhere on your global network.

Zebra Universal Driver – The most powerful driver available from Zebra

Networking Options

Bluetooth wireless
802.11b wireless Local Area Network

Firmware

CPCL Native programming language used by Zebra mobile printers.

Emulations – ZPL II and EPL II emulators available as standard.

Printing Specifications

- Direct thermal
- 203 dpi resolution (8 dots/mm)
- Programmable print speed: up to 3 ips

Optional Features

- Battery Charging Options – include:
 - ⇒ *Fast Charger*- the LI72 series of fast chargers is the recommended charging method. Average charge time is 2-3 hours. LI72 fast chargers have LEDs to clearly indicate battery status during charging.
 - ⇒ *Quad Charger*- the quad charger provides a convenient way to charge up to 4 batteries in a single location.
 - ⇒ *Vehicle Cradle*- allows for docking and charging in the vehicle with an easy push button release to carry the printer with you.
 - ⇒ *Cigarette Lighter Adapter*- for charging in the vehicle from the dashboard

Media Specifications

NOTE: For optimum print quality and printer performance, use of genuine Zebra Supplies is recommended.

	RW 420
Min. Media Width	2.0" (50.8mm)
Max. Media Width	4.12" (104mm)
Max. Print Width	4.09" (99.1mm)
Max. Media Thickness	6.5 mil
Min. Print Length	.50" (13 mm)
Max. Print Length	continuous
Max. Roll Length	80' at 3.4 mil
Label Roll ID Core Min.	.75" (19mm)
Label Roll ID Core Max.	1.375" (34.9mm)
Label Roll OD Max.	2.25" (57mm)

Printer Control Language

- Communicates in printable ASCII characters
- Compatible with mainframe, mini, and PC hosts
- Downloadable objects include graphics and bitmap Fonts, label templates and formats.
- Label Vista for easy formatting and label design
- Scalable concatenation
- Advanced utilities to manage flash file systems, obtain information about firmware and applications, configure for use in other countries and set operating parameters
- Automatic memory allocation for format while printing
- Automatic serialization of fields
- Automatic print head temperature compensation
- Format inversion (white on black)
- Four position field rotation (0°, 90°, 180°, 270°)
- Programmable label odometer with on-demand terminal reporting
- Status messages to host upon request
- Monitor and report battery voltage and temperature
- Easy network and security configuration

Bar Code Symbologies & Specifications

- **Bar Code Ratios:** 1.5:1, 2:1, 2.5:1, 3:1, 3.5:1
- **Bar code Symbologies:** Code 39, Code 93, UCC/EAN 128, Code 128, UPC-A, UPC-E, EAN-8, EAN-13, EAN 14, UPC and EAN 2 or 5 Digital Extensions, Plessey, FIM Postnet, Interleaved 2 of 5, MSI, Codabar
- **Two-dimensional Bar Codes:** PDF-417, DataMatrix, Maxi Code, RSS, Composite Symbology, QR

Font Specifications: 203 dpi (8 dots/mm)

Fonts	Matrix (in dots) (H x W)	Minimum Char. Size (H x W)	Maximum CPI
0 (Standard)	9 x 8	.044" x .039"	25.4
1 (min. width)	48 x 13	.236" x .064"	15.6
1 (max. width)	48 x 39	.236" x .192"	5.2
2 (OCR-A)	12 x 20	.059" x .099"	10.2
4 Size 0 (min. width)	47 x 11	.232" x .054"	18.5
4 Size 0 (max. width)	47 x 43	.232" x .212"	4.7
5 Size 0 (min. width)	24 x 7	.118" x .034"	29
5 Size 0 (max. width)	24 x 23	.118" x .113"	8.8
6 (MICR)	27 x 28	.133" x .138"	7.3
7	24 x 12	.118" x .059"	16.9

- Fonts supported: Standard Fonts: 25 bitmapped, 1 smooth, scalable (CG Triumvirate Bold Condensed*)
Optional Fonts: downloadable bitmapped/scalable fonts
- International Character Sets (optional): Chinese 16x16 (trad), 16x16 (simplified), 24x24 (simplified); Japanese 16x16, 24x24, Hebrew/Arabic
- Scalable text feature
- Standard resident fonts can be rotated in 90° increments
- Supports user defined fonts and graphics and logos
- Text concatenation to assign different character styles
- Allows text magnification 1-16 times the original size
- Proportional and fixed-width fonts
- *Contains UFST from Agfa Monotype Corporation

Communications Specifications

- Serial interface: 10-pin RJ-45, RS-232C port for one-way or two-way communication to terminal/ other host
- Default Parameters: Baud Rate- 19,200; Parity- None; Data Bits- 8; Stop Bits-1; Handshaking- RTS/CTS
- Software (XON/XOFF) or hardware (RTS/CTS) communication handshake protocols

RS 232 Port Pin Definitions:

PIN Number	Signal Name	Signal Type	Description
1	NC	Do not use	
2	NC	Do not use	
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 transition turns printer on. High to low transition turns printer off (if enabled).
8	RTS	Output	Request to send. Set high when printer ready to accept a command or data.
9	CTS	Input	Clear to send from host.
10	NC	Do not use	

Electrical Specifications

- Standard Battery: 7.4 V, 4.0 Ahr removable, rechargeable Li-Ion battery (1400 six-inch receipts (8400") at 30% black density at room ambient temperature, tone 0)
- Agency approvals: FCC Part 15 Class B, ICES-003, VCCI, NOM/NYCE, CE compliance (Class B), C-Tick

Physical Specifications *(with battery)*

	RW 420	RW 420 (w/ readers)
Height:	6.9" (175 mm)	6.9" (175 mm)
Width	6.3" (160 mm)	6.3" (160 mm)
Depth:	3.1" (79 mm)	3.1" (79 mm)
Weight (w/battery):	2.0 lbs. (907 g)	2.15 lbs./ 975 g

Environmental Specifications

- Operating temp. range: -4° F/-20° C to 131° F/55° C
- Storage temperature range: -22°F/-30°C to 149° F/65° C
- Relative humidity:
 - Operation: 10% to 80% non-condensing
 - Storage: 10% to 90% non-condensing

Preventative Maintenance

Zebra recommends cleaning the *Mobile Line* printer on a regular basis using standard Zebra printer parts and cleaning supplies. Consult your *User's Guide* for further details.

- **Cleaning:**

The exterior is cleaned with a lint-free cloth, and if necessary, a mild detergent solution or desktop cleaner. Interior components are cleaned with alcohol or blown air to remove any particles.

- **Battery:**

It is recommended that the battery be fully discharged several times by cycling it to maximize performance.

- **Lubrication:**

All mechanical parts are self-lubricating and do not require additional lubrication.

- **Registration:**

Media registration and minimum length are affected by media type, width and print speed. Performance improves as these factors are optimized. Zebra recommends always qualifying any application with thorough testing.