



# Zebra® QLn™ Series



SEE MORE. DO MORE.



Zebra's popular QL™ family of direct thermal mobile label printers has built a highly satisfied following based upon its proven drop-resistant durability; user-friendly, productivity-boosting features; and easy integration. As Zebra's third generation of QL printers, the QLn™ series extends these QL-platform benefits to the "nth" power—whether you choose the QLn320™ for 3-inch-wide printing, or the QLn220™ for print widths up to 2 inches.

A new seamless, one-piece design and tempered-glass display join the printer's rubber-infused overmolding to make the lightweight

printer even more durable. The QLn printer can boost your operation's productivity through a larger, sharper, easier-to-navigate display; faster, higher-quality printing; a variety of proactive alerts that help keep working printers in employees' hands; and many convenient charging accessories. And your IT department will find the QLn easier to integrate into existing environments with such features as Zebra Global Printing, improved network performance—including 802.11n wireless LAN capability for more robust and reliable connectivity and throughput—and ZebraLink™ support.

## Ideal for These Applications

**Retail** / shelf-edge labels, mark-down labels, price labels and tags, sell-by labels, transfer and return labels

**Healthcare** / bedside specimen labels, pharmacy labels

**Transportation & Logistics** / shipping/receiving labels, pallet/case labels, cross-docking labels, warehouse management labels

# EASIER AND MORE EFFICIENT TO USE



Multiple enhancements deliver significant operations advantages over the previous-generation QL and QL Plus™ series mobile printers.

## Easier to Use

Reduce training requirements and speed user adoption. Increase worker productivity and process efficiency.

- Easy-to-navigate controls and interface, including help menu and alert messages
- Easy to carry and store with smaller, lighter printer design
- Faster, higher-quality printing with lower power use, through new Power Smart Print Technology™
- Higher performance
  - » Faster processing and throughput
  - » Increased memory that handles printer's advanced functions and future firmware improvements, and stores more complex fonts, graphics and images
- New, convenient charging accessories increase user and operations efficiencies

## Longer Printer Uptime

Improve operations productivity and reduce costs associated with downtime through fewer printing interruptions.

- Prevent associates from being stuck printerless in the middle of their work. The printer enables proactive maintenance by displaying printer alert messages, smart battery charge and health status, and printhead cleaning how-to's.
- Avoid the downtime and costs of unnecessarily sending the printer away for servicing. Many issues can be remotely diagnosed and resolved (including firmware updates, configuration changes, and adding new fonts or graphics) over an Ethernet connection.



**Easy-to-read display with larger, higher-resolution screen**



**Intuitive peeler operation**

# EASIER TO INTEGRATE, MANAGE AND MAINTAIN

New features in the QLn printer make it easier and quicker to integrate into your existing network and printer environment, anywhere in the world, with no changes to software or network infrastructure needed. They help save IT time and costs—as do easier printer management and other features.

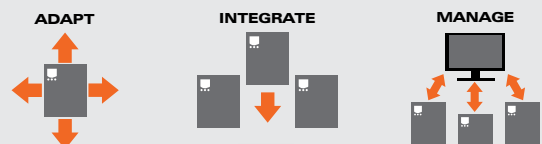
## Easier to Integrate

- Backwards compatibility with QL and QL Plus lets you upgrade to the QLn without changing media or label formats. It also allows mixed networks of QL/QL Plus and QLn products, as does the QLn printer's inclusion of the legacy CPCL programming language.
- Inclusion of ZPL® programming language ensures full compatibility with most other Zebra printers.
- With Zebra's Unicode™ UTF-16-compliant Global Printing Solution with right-to-left printing capability, print in the native language of most countries around the world, and print multiple languages on a single label.
- Integrate and use the printer in a variety of physical environments and conditions thanks to its durable design.
- The QLn Series printers offers 802.11n wireless LAN capability. This provides more robust and reliable connectivity which allows for a greater throughput in environments where users need to transmit larger blocks of data. Zebra's 802.11n solution has dual band support (5 GHz and 2.4 GHz) and is fully compatible with 802.11a and 802.11b/g standards. This means that end-users that have encountered a crowded 802.11b/g network can now easily move their business operations to the less crowded 5 GHz band using Zebra's wireless connectivity solution. Zebra's 802.11n solution supports channel bandwidths of 20 MHz and 40 MHz contributing to better throughputs, unlike other solutions in the market that only support 20 MHz channel widths.

## Easier to Manage

- Rapidly configure, monitor and control Zebra printers on your network—maximizing uptime to get the most from your investment—with ZebraLink™ tools like the Zebra Setup Utility (for single printer setup), ZebraNet™ Bridge Enterprise for global centralized printer management, ZebraDesigner™ Drivers (for Windows® based printing), ZebraDesigner Pro (for label design), ZebraLink Multiplatform SDK and Smartphone Utility (for printing from mobile terminals and smartphones), and ZBI 2.x™ programming for customizing the functionality of the printer, including connecting to scanners, scales, and other peripherals.
- Also manage specific, local printer and battery issues remotely over a wired IP network via a Zebra Ethernet Cradle—keeping printers in service longer and reducing “no problem found” returns. The Ethernet Cradle allows all printer configurations to be remotely managed, including serial and Bluetooth® (which otherwise would not be possible).
- With the mirror function, automatically update printer firmware and/or configuration from a file server over either 802.11 or Ethernet interfaces.
- You can also manage QLn printers using most popular third-party management software solutions. The printers also fully support Simple Network Management Protocol (SNMP).

# ZebraLink™



# MOBILE A TO Z

## FROM ACCESSORIES, TO SUPPLIES, TO ZEBRACARE™ PLANS

### Lithium-Ion Charging Accessories

#### Ethernet Cradle

Connect QLn printers to your wired Ethernet network via the QLn Ethernet Cradle to enable easy remote management by your IT or operations staff—helping to ensure each printer is operating optimally and ready for use. The Ethernet Cradle can communicate over 10 mbps or 100 mbps networks using auto-sense.

The single-bay QLn Ethernet Cradle also charges the battery while it is in the printer, while the 4-bay version (with optional wall mount kit) charges four printers at a time. The 4-bay version includes an internal Ethernet switch and second Ethernet port, so you can link and manage four 4-bay QLn Ethernet Cradles (a total of 16 printers) from one port.

The printer remains fully functional so you can print while it is in either Cradle. The Cradle's LED lights indicate DC power and Ethernet-link status.

Remote printer management over your Ethernet allows:

- Battery management—Monitor battery health. Knowing each battery's lifespan stage simplifies central management of your spare battery pool.
- Firmware management—Update printer firmware, eliminating the need for IT staff to travel to the local user site, or for the printer to be sent back to a central location for updating.
- Print management—Update templates, fonts, and graphics in order to print new label formats.
- Device management—Update startup (e.g., config. sys), WML (front panel), or HTML (browser) files to enhance or change configuration and status collection.
- Network management—Update encryption keys or certificate files to maintain the highest level of security.
- Problem resolution—Troubleshoot local printer issues that may otherwise require the printer to be sent in for repair.



**Single-bay QLn Ethernet Cradle**



**4-bay QLn Ethernet Cradle**

#### What Comes with the Unit?

**Unit with AC Adapter:** Cradle, AC Adapter, Power Cord, and Document CD including Cradle user manual and installation guide

**Single-bay unit without AC Adapter:** Cradle and Document CD including Cradle user manual and installation guide (AC Adapter can be purchased separately)

## AC Adapter

Connect the AC Adapter to your QLn and wall outlet to charge the printer's Smart Battery while in the printer. The printer can print labels and perform other functions during charging. Shown with printer for reference purposes; printer is not included.



## Smart Charger

The Smart Charger will fully charge a single standalone QLn Smart Battery in less than 4 hours. In addition to indicating battery charge status, it leverages the battery's smart design to indicate battery health, allowing you to more accurately manage your spare battery pool. Specifically, LEDs show whether the battery is "good," has a "diminished capacity," is "past useful life," or is "unusable" and should be replaced. Smart Charger comes with charging base and power cord. Shown with printer for reference purposes; printer is not included.



## Extended Capacity Li-Ion Smart Battery

The Extended Capacity Li-Ion Smart Battery option provides twice the battery capacity over the standard Smart Battery, providing double the power for increased uptime. No need to upgrade your existing QLn printer—you can purchase this as a standalone accessory to use with your current QLn220 or QLn320. Or, order it as a configurable printer option so your printer ships ready to go with this powerful accessory. The choice is yours.



## Quad Battery Charger

The Quad Battery Charger is designed to simultaneously charge up to four QLn Smart Batteries (removed from the printer) in about 3 hours. Lights on the charger indicate when individual batteries are 80 percent charged and when fully charged. Note the Quad Battery Charger does not indicate battery health, as provided with the Smart Charger. Comes with the charging unit, a power supply, and power cord.



## Carrying Straps/Cases

### Hand Strap

Allows the printer to be carried by hand.

### Shoulder Strap

Allows the printer to be carried over the shoulder.

### Soft Case

Add an extra layer of protection for harsh environments with a soft case. While in the case, the printer is IP54-rated for resistance to windblown water and dust. Case provides openings for changing the media and batteries and all connectors are accessible. Includes shoulder strap.

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## Genuine Zebra™ Supplies

Ensure consistent print quality, reduce downtime and increase productivity in your printing process with genuine Zebra supplies. We manufacture each supplies product with the exact same materials every time so you always get crisp, readable and scannable output without needing to adjust the printer darkness setting between rolls.

## ZebraCare™ Service

Increase printer uptime, and reduce lost productivity and unbudgeted repair costs, by selecting a ZebraCare Depot service agreement. A cost-effective means of planning and budgeting your annual maintenance expenditures, your agreement ensures that trained Zebra technicians will bring your printer back to factory specifications. Zebra offers a variety of plans to fit your budget and business needs.



# SPECIFICATIONS AT A GLANCE\*

## Printer Name

QLn320  
QLn220

## Standard Features

- Direct thermal printing of barcodes, text and graphics
- CPCL and ZPL® programming languages
- 256 MB Flash supports downloadable programs, receipt formats, fonts, and graphics
- 2330 mAh (nominal) 17.2 Wh removable Li-Ion Smart Battery
- Built-in battery charger
- Black mark and gap media sensing using fixed center position sensors
- Easy to use peel and present mode
- Label present sensor for issuing labels one at a time
- Tear bar for easy receipt dispensing
- Belt clip for unobtrusive and convenient printing (not compatible with extended capacity battery)
- Center-loading media locking for variable roll widths
- "Clamshell" design for easy media loading
- Management: Mirror, SNMP, Web server (with customizable HTML pages), Wavelink Avalanche®
- Large, easy to read LCD control panel 240 x 128 pixels
- LCD can be customized using WML (text and icons)
- 5-way navigation buttons, two software defined keys
- Printer alerts on the display, help menus
- Tolerance of multiple drops from 5'/1.52 m to concrete
- IP43 dust- and water-resistance rating (IP54 with soft case)
- Label odometer
- Real-time clock

## Printer Specifications

### Resolution

- 203 dpi/8 dots per mm

### Memory

128 MB RAM; 256 MB Flash (standard)

### Print width

- QLn220: 1.9"/48 mm
- QLn320: 2.9"/72 mm

### Print length

- Min: 0.5"/12.7 mm
- Max: 32"/813 mm

### Print speed

Up to 4"/100 mm per second

### Media sensors

Black mark and gap media sensing using fixed center position sensors; Label present sensor for issuing labels one at a time

## Operating Characteristics

### Environment

- Operating Temperature: -4° F/-20° C to 122° F/50° C

- Storage/Transport Environment: -13° F/-25° C to 158° F/65° C
- Operating Humidity: 10% to 90% non-condensing
- Storage Humidity: 10% to 90% non-condensing

### Agency approvals

- Emissions: FCC Part 15, Subpart B, EN55022 Class-B, EN60950, EN55024 and VCCI class B
- Susceptibility: EN55024, EN61000-4-2, EN61000-4-3, EN61000-4-4, and EN61000-4-5
- Safety: CE, UL, TUV, CSA

## Media Characteristics

### Media width

- QLn220: 0.63"/16 mm to 2.18"/55.4 mm
- QLn320: 1.0"/25 mm to 3.125"/79 mm

### Media length

- QLn220: 0.5"/12.7 mm to 32"/813 mm
- QLn320: 0.5"/12.7 mm to 32"/813 mm or continuous

### Maximum media roll size

- QLn220: 2.2"/55.9 mm OD on a 0.75"/19 mm or 1.375"/34.9 mm
- QLn320: 2.6"/66 mm OD on a 0.75"/19 mm or 1.375"/34.9 mm

### Media thickness

- QLn220: 2.3 mil to 5.5 mil
- QLn320: 2.3 mil to 6.5 mil

### Media types

Die-cut, roll-fed, receipt, linerless, black bar, black mark

## Physical Characteristics

	QLn220	QLn320
Width:	3.5"/89 mm	4.6"/117 mm
Height:	2.75"/70 mm	3.3"/84 mm
Depth:	6.5"/165 mm	6.8"/173 mm
Weight:	1.35 lbs/0.57 kg with battery	1.6 lbs/0.72 kg with battery

Note: The Extended Capacity Li-Ion Smart Battery option adds 0.20 lbs/0.09 kg to the weight and 0.6"/16 mm to the height of either QLn series printer.

## ZebraLink Solutions

### Software

- ZebraDesigner™ Pro
- ZebraDesigner
- ZebraNet™ Bridge Enterprise
- ZebraDesigner Driver
- Zebra Setup Utility
- Multiplatform Software Development Kit

### Firmware

- CPCL and ZPL programming languages
- ZBI 2.x™—Powerful programming language that lets printers run standalone applications, connect to peripherals, and much more

## Fonts/Graphics/Symbologies

### Fonts and character sets

- Five resident scalable, rotatable fonts available from 12-48 pt.
- Downloadable soft fonts
- Optional international character sets

## Barcode symbologies

- Barcode Ratios: 1.5:1, 2:1, 2.5:1, 3:1, 3.5:1
- Linear Barcodes: Code 39, Code 93, UCC/EAN128, Code 128, Codabar (NW-7), Interleaved 2-of-5, UPC-A, UPC-E, 2 and 5 digit add-on, EAN-8, EAN-13, 2 and 5 digit add-on
- 2-Dimensional: PDF417, MicroPDF417, MaxiCode, QR Code, GS1 DataBar™ (RSS) family, Aztec, MSI/Plessey, FIM Postnet, Data Matrix, TLC39

## Communication and Interface Capabilities

- 802.11b/g and 802.11a/b/g/n radios with support for:
  - WEP, TKIP, and AES encryption
  - EAP-FAST, EAP-TTLS, EAP-TLS, PEAP, LEAP
- 802.1x
- WPA and WPA2
- 802.11d and 802.11i
- Bluetooth® 2.1 radio
  - Security modes 1 - 4
- Dual 802.11b/g/n and Bluetooth 3.0 radio (coming soon)
- 10/100 Ethernet support (via docking cradle)

## Cabled Communications Specifications

- USB 2.0 full-speed interface (12 Mbps)
- Mini-B connector with optional strain relief
- Serial interface: 14-pin RS-232C port for communication to terminal or other host up to 115.2 Kbps

## Options and Accessories

### Charging Options

- Charge the battery inside the printer using:
  - AC adapter
  - Single cradle
  - Quad cradle
- Charge the battery outside the printer using:
  - Smart charger
  - Quad charger

### Optional Features and Accessories

- Linerless printing (with silicone platen roller only)
- ZBI 2.x
- Spare batteries
- 4300 mAh (nominal) 31.0 Wh removable Extended Capacity Li-Ion Smart Battery
- AC adapter (ENERGY STAR® qualified)
- SC2 smart battery single charger (ENERGY STAR qualified)
- Quad battery charger
- QLn-EC—single bay Ethernet and charging cradle (not compatible with extended capacity battery)
- QLn-EC4—quad bay Ethernet and charging cradle, with internal switch and stacking port (not compatible with extended capacity battery)
- Shoulder strap
- Hand strap
- Soft case (IP54 rating when used)—not compatible with extended capacity battery
- Serial and USB cables with strain relief



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