



# Zebra® QLn420™ Mobile Printer



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.

A new seamless, one-piece design joins the printer's over-molding to make the 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 printer 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

### Manufacturing

- Labels for shipping and receiving
- Pick-pack-apply (inventory control, work-in-process, parts tracking)
- Asset management
- Shelf/bin/box/pallet (pick tickets)

### Transportation & Logistics

- Labels for shipping, receiving, cross-docking
- Pick-pack-apply
- Shipping dock (asset/fleet management, pick tickets, parcel/logistics receipts)

### Retail

- Distribution centers (as for Transport and Logistics)
- In-store shelf labels, markdowns

# 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 a smaller 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

- Mobile printing helps you improve operational 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 SET UP, EASIER TO INTEGRATE, EASIER TO MANAGE

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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 Set up

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- The Zebra Setup Utility quickly configures single printers and ZebraNet™ Bridge Enterprise enables global centralized printer management
- Print Touch™ software simplifies Bluetooth® pairing and launches Web-based help pages with Near Field Communication-enabled devices
- ZebraDesigner™ Pro (for label design) and ZebraDesigner drivers (for Windows) create efficient and optimized output while Zebra's Unicode™ UTF-16-compliant Global Printing Solution, with right-to-left printing capability, enables you to print in local languages.

## Easier to integrate

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- ZPL® programming language ensures full compatibility with many other Zebra printers and ZBI 2.x™ programming enables printers to directly connect with legacy host systems and peripheral devices such as scanners and scales. Backwards compatibility with QL and QL Plus models also lets you upgrade to the QLn printer 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
- Integrate and use the printer in a variety of physical environments and conditions thanks to its durable design
- The QLn series printers offer 802.11a/b/g/n wireless LAN capability. This provides more robust and reliable connectivity for a greater throughput in environments where users need to transmit larger blocks of data. Zebra's 802.11n solution has dual-band support (5GHz and 2.4GHz) and is fully compatible with 802.11a and 802.11b/g standards – you can now easily move business operations to the less crowded 5GHz band using Zebra's wireless connectivity solution.

- The Link-OS™ Software Development Kit creates printing applications for the Windows®, Apple®, Android™, WinCE®, WinMobile® and BlackBerry® platforms. Virtual Printers (to be released at a later date) will provide embedded support for third-party formatting languages.
- The QLn420 printer features improved communication with leading handheld terminals. These terminals have been tested with industry-leading applications to verify interoperability and improve overall optimization when using the QLn420 printer with validated terminals. Zebra Independent Software Vendor (ISV) Partners create industry-leading software solutions to solve business problems and Zebra works closely with these ISVs to integrate printing and other capabilities of Zebra products. Zebra-validated applications can be found at [zebra.com/validation](http://zebra.com/validation)

## Easier to manage

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- Use the Link-OS software solutions to rapidly configure, monitor and integrate Zebra printers with your system. 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 would not otherwise be possible). A Profile Manager with AirWatch Connector quickly connects your printer with the AirWatch device-management system via WLAN and Ethernet
- The mirror function automatically updates 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 and Simple Network Management Protocol (SNMP) is fully supported

# MOBILE A TO Z

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

### Lithium-Ion charging accessories

#### Charging and Ethernet cradle

The QLn420 charging and Ethernet cradle charges the battery – a neat and orderly solution to keep batteries in the printer.

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 10Mbps or 100Mbps networks using auto-sense.

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

Remote printer management over your Ethernet allows:

- Battery management for monitoring battery health. Knowing each battery's lifespan stage simplifies central management of your spare-battery pool

- Firmware management for updating 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 for updating templates, fonts, and graphics in order to print new label formats
- Device management for updating startup (e.g. config.sys), WML (front panel), or HTML (browser) files to enhance or change configuration and status collection
- Network management for updating encryption keys or certificate files to maintain the highest level of security
- Problem resolution: troubleshooting local printer issues that may otherwise require the printer to be sent in for repair
- Ability to manage Bluetooth printers, which traditionally have been off-network



QLn420 Charging and Ethernet Cradle

#### What comes with the cradle?

##### Unit with AC adapter:

Cradle, AC adapter, power cord, and document CD including cradle user manual and installation guide.

##### Cradle Unit:

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 printer 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 four 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. The smart charger comes with a charging base and power cord. Shown with printer for reference purposes; printer is not included.

## Removable forklift cradle

By allowing users to place a cradle in their forklift or truck, the QLn420 forklift cradle and mount provide convenient storage and charging for the QLn420 printer while on the move. Forklift operators can now print product identification, bin, and shipping labels at the point of application to provide quicker turnaround. Printed bar code labels can be applied as deliveries are received to record product arrival and aid tracking applications.

## Forklift mounts

### RAM Forklift Mount

Plate and RAM mount arm permits compact and fixed mounting to a forklift.



### Heavy-duty forklift mount

A heavy duty forklift mount that has been tested to high levels of shock and vibration. Also includes a bin to hold a large amount of fanfold media to reduce the frequency of reloading media.

## Quad battery charger

The quad battery charger is designed to simultaneously charge up to four QLn smart batteries (removed from the printer) in about three 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.

### Hard case

Increases the printer's drop specification and made to protect the printer in extra-harsh environments such as constant abrasion.



## 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™ Services

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 for 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\*

<b>Printer name</b> QLn420	<b>Operating characteristics</b> <b>Environment</b> <ul style="list-style-type: none"><li>Operating temperature: -4°F/-20°C to 122°F/50°C</li><li>Storage/Transport environment: -13°F/-25°C to 158°F/65°C</li><li>Operating humidity: 10% to 90% non-condensing</li><li>Storage humidity: 10% to 90% non-condensing</li></ul> <b>Agency approvals</b> <ul style="list-style-type: none"><li>Emissions: FCC Part 15, Subpart B, EN55022 Class-B, EN60950, EN55024 and VCCI class B</li><li>Susceptibility: EN55024, EN61000-4-2, EN61000-4-3, EN61000-4-4, and EN61000-4-5</li><li>Safety: CE, UL, TÜV, CSA</li></ul> <b>Media characteristics</b> <b>Media width</b> QLn420: 2.0"(51mm)/4.4" (112mm) <b>Media length</b> QLn420: 0.5"/12.7mm to 32"/813mm or continuous <b>Maximum media roll size</b> QLn420: 2.6"/66mm OD on a 0.75"/19mm or 1.375"/34.9mm core <b>Media thickness</b> QLn420: 3.2 mil to 7.5 mil <b>Media types</b> Die-cut, roll-fed, fan-fold, receipt, linerless	<b>Bar code symbologies</b> <ul style="list-style-type: none"><li>Bar code ratios: 1.5:1, 2:1, 2.5:1, 3:1, 3.5:1</li><li>Linear bar codes: Codabar (NW-7), Code 39, Code 93, Code 128, EAN-8, EAN-13, 2 and 5 digit add-on, Interleaved 2-of-5, UCC/EAN128, UPC-A, UPC-E, 2 and 5 digit add-on</li><li>Two-Dimensional: Aztec Code, Data Matrix, GS1 DataBar™ (RSS) family, MaxiCode, MicroPDF417, PDF417, QR Code, TLC39</li></ul> <b>Communication and interface capabilities</b> <ul style="list-style-type: none"><li>802.11a/b/g/n radios with support for:<ul style="list-style-type: none"><li>WEP, TKIP, and AES encryption</li><li>EAP-FAST, EAP-TLS, EAP-TLS, PEAP, LEAP</li></ul></li><li>802.1x</li><li>WPA and WPA2</li><li>802.11d and 802.11i</li><li>Wi-Fi®-certified </li><li>Cisco® CCX V4 ASD-certified </li><li>Bluetooth® 3.0 radio<ul style="list-style-type: none"><li>Security modes 1-4</li></ul></li><li>802.11a/b/g/n radio</li><li>10/100 Ethernet support (via docking cradle)</li></ul> <b>Cabled communications specifications</b> <ul style="list-style-type: none"><li>USB 2.0 full-speed interface (12Mbps)</li><li>Mini-B connector with optional strain relief</li><li>Serial interface: 14-pin RS-232C port for communication to terminal or other host up to 115.2Kbps</li></ul> <b>Options and accessories</b> <b>Charging options</b> <ul style="list-style-type: none"><li>Charge the battery inside the printer using:<ul style="list-style-type: none"><li>AC adapter</li><li>Charging and Ethernet cradle</li><li>Vehicle cradle (DC power)</li></ul></li><li>Charge the battery outside the printer using:<ul style="list-style-type: none"><li>Smart charger</li><li>Quad charger</li></ul></li></ul> <b>Optional features and accessories</b> <ul style="list-style-type: none"><li>Linerless printing (with silicone platen roller only)</li><li>ZBI 2.x</li><li>Spare batteries</li><li>AC adapter (ENERGY STAR®-qualified)</li><li>SC2 smart battery single charger (ENERGY STAR-qualified)</li><li>Quad battery charger</li><li>QLn4-EC charging and Ethernet cradle</li><li>Shoulder strap</li><li>QLn4-VC vehicle cradle for use with a QLn420 printer on a forklift for easy removal. Compatible with RAM arm (not included)</li><li>QLn420 RAM mount for fixed mounting of QLn420 to a forklift. Includes plate and RAM arm</li><li>Heavy-duty forklift mount. Includes bin for fanfold media.</li><li>Hand strap</li><li>Soft case (IP54 rating when used)</li><li>Serial and USB cables with strain relief</li><li>Forklift battery eliminator (available Q1 2013)</li></ul>
<b>Standard features</b> <ul style="list-style-type: none"><li>Direct-thermal printing of bar codes, text and graphics</li><li>CPCL and ZPL programming languages</li><li>256MB flash supports downloadable programs, receipt formats, fonts, and graphics</li><li>5.0Ahr battery</li><li>Built-in battery charger</li><li>Black mark and gap media sensing using fixed center-position sensors</li><li>Easy-to-use peel-and-present mode</li><li>Label-present sensor for issuing labels one at a time</li><li>Tear bar for easy dispensing</li><li>Belt clip for unobtrusive and convenient printing</li><li>Center-loading media locking for variable roll widths</li><li>Clamshell design for easy media loading</li><li>Management: Mirror, SNMP, Web server (with customizable HTML pages), Wavelink Avalanche®</li><li>Large, easy-to-read LCD control panel 240 x 128 pixels</li><li>LCD can be customized using WML (text and icons)</li><li>Five-way navigation buttons, two software-defined keys</li><li>Printer alerts on the display, help menus</li><li>Tolerance of multiple drops from 6'/1829mm to concrete</li><li>IP43 dust- and water-resistance rating (IP54 with soft case)</li><li>Label odometer</li><li>Real-time clock</li><li>Print Touch via NFC</li></ul> <b>Printer specifications</b> <b>Resolution</b> 203dpi/8 dots per mm <b>Memory</b> 128MB RAM; 256MB flash (standard) <b>Print width</b> 4.1"/104 mm <b>Print length</b> Min. 0.5"/12.7mm Max. 32"/813mm <b>Print speed</b> Up to 4"/102mm per second <b>Media sensors</b> Black mark and gap media sensing using fixed center-position sensors; label-present sensor for issuing labels one at a time	<b>Physical characteristics</b> Width: 6.5" (165mm) Height: 7.35" (187mm) with beltclip Depth: 3.25" (82.5mm) Weight: 2.45lbs (1.1kg) with battery <b>ZebraLink Solutions</b> <b>Software</b> <ul style="list-style-type: none"><li>ZebraDesigner Pro</li><li>ZebraDesigner</li><li>ZebraNet Bridge Enterprise</li><li>ZebraDesigner Driver</li><li>Zebra Setup Utility</li><li>Link-OS Software Development Kit</li><li>Profile Manager with AirWatch Connector</li></ul> Find Zebra-validated applications at <a href="http://zebra.com/validation">zebra.com/validation</a> <b>Firmware</b> <ul style="list-style-type: none"><li>CPCL and ZPL programming languages</li><li>ZPL version x.18</li></ul> <b>Fonts/Graphics/Symbologies</b> <b>Fonts and character sets</b> <ul style="list-style-type: none"><li>Five resident scalable, rotatable fonts available from 12-48 pt.</li><li>Downloadable soft fonts</li><li>Optional international character sets</li></ul>	



**Other Locations / USA:** California, Georgia, Illinois, Rhode Island, Texas, Wisconsin **Europe:** France, Germany, Italy, the Netherlands, Poland, Spain, Sweden, Turkey, United Kingdom **Asia Pacific:** Australia, China, Hong Kong, India, Japan, Malaysia, South Korea, Singapore, Thailand **Latin America:** Brazil, Florida (LA Headquarters in USA), Mexico **Africa/Middle East:** Dubai, South Africa

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