# RL Series
# rugged label printers

**datamax·o'neil**

**right by our customers.**

# Contents ▪ ▪ ▪

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www.datamax-oneil.com

## About Datamax-O'Neil

*Datamax-O'Neil is the global provider who works passionately with customers to listen, understand and then deliver a value-driven printing solution that minimizes risk and maximizes efficiency, safety, and quality.*

Datamax-O'Neil is the barcode and mobile printing business group of Dover Corporation's Printing and Identification segment. The company's products address a wide variety of applications, including those in the industrial, healthcare, retail, automotive and ticketing market sectors. Datamax-O'Neil is headquartered in Orlando, Florida, and maintains key facilities in California, Illinois, and France, as well as sales and technical support offices around the world.

## Product Introduction

Datamax-O'Neil built its reputation on rugged and reliable portable receipt printers and has now used this expertise to design the industry's most rugged portable label printer. The RL3 (3-inch/76mm) and RL4 (4-inch/102mm) are durable direct thermal label printers with a rugged design and reliable performance that will continue to operate long after other printers have failed. In addition to being ultra rugged, the RL series is also easy to use, easy to integrate and priced well below other printers. In fact, we're so committed to delivering maximum value and long-term reliability that we include a 2-year warranty free of charge. That's double what the competition offers and helps make the RL series the best value on the market.

## Rugged/Reliable

### ■ Setting the Standard

Choosing the right printer is critical to the success of any application. For harsh warehouse environments you need a printer that's reliable and rugged enough to absorb every day knocks and bumps and still print clear, accurate labels the first time - every time. We test our printers in the most punishing environments to ensure their long term reliability. The RL series was tested using military MIL-STD 810F procedures which require that the printer operate after being dropped on all corners, edges and faces for a total of 26 consecutive times. The RL series is the only portable label printer to pass the MIL STD 810F test from a height of 6 feet (1.8m) onto solid concrete at extreme cold and hot temperatures.

### ■ ROI of Ruggedness

When comparing printers and calculating their total cost, it is important to include the cost associated with supporting products that are not designed for use in rugged environments. These costs include purchasing extended warranties, costs to support a larger spare printer pool, loss of productivity, shipping and handling, and cost of IT support to reinstall repaired units back into the field.

## Easy

### ▪ Easy to Use

Nobody likes to reload media, but we've made it so easy you can do it with one hand. We've also included an easy-to-read LCD screen with a simple user interface menu, buttons that are easy to use and a peel and present mechanism for quicker label application. These features are not just easy to use but also mean less downtime and higher productivity.

### ▪ Easy to Install

The RL series comes standard with popular language emulations that allow you to easily replace existing printers in the workplace. The printer is also compatible with most popular Warehouse Management Software packages and offers optional wireless 802.11 and Bluetooth connectivity.

### ▪ Versatile

Every application is different, so having the right accessory can be critical to maximizing productivity. The RL series can be worn on the hip or slung over the shoulder where the RL4 has enough battery power to last for 16 consecutive hours in a warehouse printing 320 4"6" (100mmx150mm) labels or the RL3 can print 5500 3"x1" (76.2 x 25.4 mm) labels on the retail floor for 8 plus hours.The printer can also be mounted on a fork truck and charged with existing DC power. The RL series offers enough charging, mounting and connectivity options to fit any environment.

## Affordable Value

### ▪ 18% Lower Purchase Price

The RL series is the most rugged and reliable portable label printer on the market and yet it is priced approximately up to 18% less than the competition.* With today's tight budgets, buying a printer that's going to break just doesn't make good business sense at any price. The RL series is not only affordable to purchase, but its rugged design and enduring reliability will save money in unexpected repair and replacement costs.

### ▪ 2-Year Warranty

We're so confident in the quality and long term reliability of the RL series that we include a 2-year warranty free of charge. Datamax-O'Neil is the only manufacturer to offer a two-year standard warranty on its portable label printer. Coverage includes the case, electronics, plus all components except the printhead, batteries and accessories.

*\* See the competitive printer overview starting on page 12.*

## Why a portable barcode label printer?

A typical manufacturer's receiving dock is very much like any receiving dock in logistics, distribution and parcel forwarding applications. While they have all been customized to handle different volumes of packages, all applications generally require that an incoming package is received, identified and moved onto the next point of distribution or use. Receiving is generally automated with a scanner or imager, entering material into inventory in the MRP system. These materials are then identified and marked with a location where they will be temporarily stored or consumed in the manufacturing process.

In a typical environment that does not use portable bar-code label printing, the worker on the receiving dock has to scan the incoming package or pallet, sometimes has to break down the pallet, and then ask the MRP system to generate labels to identify the packages or pallets. At that time, the dock worker has to take time to go to the printer, pick up the labels and bring them back to the packages that are ready for storage or consumption. This time that the worker spends walking around is non-value-add activity (something that is called "Muda" by many lean manufacturing experts), and any number of distractions can come into the worker's way before the labeling is complete. These opportunities for distractions not only waste more time, but they can cause the wrong label to go onto the wrong package. The cost of mislabeling includes lost or redundant inventory, labor costs to track and correct packages that have been moved to the wrong location, and reduced customer satisfaction.

The wasted time of the operator, and the increased chances of mislabeling can easily cost any large or mid-sized company tens of thousands of dollars each year. You can see that your customers can easily pay for the investment of implementing a portable labeling solution, especially one that is designed to stand up to these tough applications, in less than a year. When you add the confidence that comes with implementing an RL4, which is the only truly ultra-rugged portable printing solution, the only portable bar-code label printer with a two-year factory warranty, your customers' question goes from "If… ?", to "How many do I need and how soon can I get them?".

## Combining Two Superior Core Competencies



Datamax-O'Neil has an unequalled reputation for designing **ultra rugged portable receipt printers**, however these products are targeted toward commercial and consumer delivery applications. Datamax-O'Neil also has a long history in producing **stationary label printers**, whose primary applications are to identify products and freight within manufacturing, distribution and other transportation industries. You know that the physical and data ecosystems in portable receipt printing and stationary barcode labeling environments are quite different, but now these two core strengths are combined to help traditional stationary bar code printer customers become more efficient with an ultra rugged portable bar code label printer.

The RL series uniquely address the needs of the market by exceeding their competition's capabilities to endure the rough physical treatment expected in these user environments. Surpassing anything available on the market, the RL series prints reliably even after a series of 26 grueling drops at a variety of extreme temperatures! The "know how" that can only come from years of barcode label printer integration experience also positions the RL series for easy integration into automated data acquisition and printing systems.

## ROI of Ultra-Rugged

Ultra rugged products are often overlooked because of the purchase price, but many studies have shown that the cost of implementing lower cost hardware for professional use, especially in applications where products may be dropped or bumped frequently, is much greater than the cost of purchasing ultra rugged equipment. Ultra rugged printers embrace abuse. They take the punishment outlined in the MIL-STD 810F, and continue to operate after being dropped multiple times to concrete.[1]

The costs associated with supporting products that are not designed for use in rugged environments, include extended warranty costs, costs to support a larger spare printer pool, loss of productivity, shipping and handling, and costs of IT support to reinstall units back into the field. The following illustrates your expected costs to maintain a printer that is not designed for use in rugged environments.

| | Datamax-O'Neil RL4 with WiFi | Zebra QL420 with Wi-Fi | |
|---|---|---|---|
| Initial Purchase (list price) | $1,395.00 | $1,620.00 | 18% Lower Purchase Price |
| Average usage: Dropped from 1.2m (4ft) one time every 8 weeks of production - 13 times in the initial 2 years* | | | |
| Extended warranty costs | $0.00 | $123.00 | (ZAD-Q4P1-100 list price) |
| Additional swap stock (3%) | $0.00 | $48.60 | (To ensure continuous production support, some swap is required. For printers that fail often, higher stock swap is required.) |
| Loss of productivity per occurrence* | $0.00 | $37.50 | (45 minutes per occurrence* $50/hr) |
| Shipping and Handling - 1 way per occurrence | $0.00 | $40.00 | (Prepaid freight to the depot, including labor to pack, move to and through the shipping dock, fill out shipping paperwork) |
| Costs of IT support per occurrence* | $0.00 | $37.50 | (30 minutes per occurrence* $75/hr) |
| **Total 2 year costs** | **$1,395.00** | **$1,906.60** | 37% Less After 1 year! |
| **Additional costs in 1st 2 year period per printer deployed:** | | **$511.60** | |

*Tests conclude the Zebra QL fails to the point of needing service, on average, after 2 drops from 1.2m to concrete.
The illustration above indicates only one failure in 2 years, when over 6 are expected based on the usage scenario.

1. The RL4 passed drop tests designed around the MIL-STD 810F standard, completing 26 consecutive drops to concrete from 6 feet (1.8 m) at temperature extremes. See the technical specifications section of this guide, or the RL4 data sheet for more information on the operating temperature range.

## Partner Benefits

Your success is important to us. When designing a new printer, we keep the needs of you, our Partners in mind and incorporate features and elements that provide you with a competitive edge, or make your job easier and more profitable. Here are some of those benefits.

### ■ Costs You Less

When you pay less for the printer you have more room to negotiate when you're in a tough, price-based negotiation. The RL series costs you less, but is more rugged and offers more features.

### ■ Free 2-year Warranty

Our 2-year warranty gives you a competitive edge plus we offer a full array of service options for those customers who want even more coverage. Zebra only offers 1 year on the printer and 6 months on the printhead!

### ■ Easy Integration

The RL series will keep your integration costs to a minimum, and keep your customers happy. We offer a range of emulations that are unmatched. Auto-detect DPL, ZPL II™, CPCL, IPL®, EPL, XML, EZ Print and line command languages are where we start. We continue by having compatibility with many of today's most popular ERP systems. The RL series stores forms from SAP, drops into XML environments for Oracle, and passes compatibility testing with Manhattan Associates software.

### ■ Easy Configuration

We're here to help. Having access to the global Datamax-O'Neil technical support network gives you a very experienced team of technicians ready to guide you through unique label printing applications. NETira™ CT is a brand new configuration tool that was created for the RL4, and will continue to be rolled out across the entire Datamax-O'Neil line of stationary and portable printers.

### ■ Datamax-O'Neil Reliability

Reduce your customer complaint calls. You know your customers will be happy with the quality and reliably of a printer from Datamax-O'Neil.

### ■ Increase Your Total Sale

Customers expect you to provide a complete solution including all the accessories and supplies. The RL4 offers a full selection of cables, chargers, carrying and mounting options that are tested and guaranteed to work with the printer. Datamax-O'Neil also manufactures its own line of competitively priced, certified media and printer supplies. Selling supplies and media are an easy way to boost your bottom line.

## Applications for the RL Series

These are just a few of the most typical applications where the RL Series has excelled in pre-release field tests. While you may find many other useful applications for this ultra-rugged printer, the   Series has already proven itself to be a cost saving solution in the following environments:

## Manufacturing and Warehousing

◾ **Receiving and Location Labels**

When items are received, if they cannot be immediately used on an assembly line, they have to be assigned to a location in the warehouse. Part numbers, quantities, vendors, stocking locations, date codes and lot numbers are just a few of the bits of information that have to be readily available and clear so that the manufacturing process can move forward in an error free and efficient manner.  When the label that identifies this information needs to be put on, the dock operator has to unload the pallet, and then travel to a printer that is located at the end of the loading dock. This is a waste of the operator's time. The operator has to go back and forth, pick up the label, put the label on, and then take the item back to the warehouse. On the other hand, in this environment, if the operator is wearing the printer or the printer is attached to a forklift, then the operator can print labels as soon as items have been identified on the pallet—as soon as the pallet is touched. The operator spends less time going back and forth to the stationary printer, and efficiency is increased.

The perfect opportunity to reduce errors is when an operator first touches the pallet. Any one of a million things can happen on a loading dock. When stock is pulled off the truck and the worker goes to the printer to pick up a label, he or she may run into a buddy and chat about Monday Night Football or what happened at a child's birthday party; or, a call may come in to do something else that's work related. Any of these distractions can lead to labeling errors. If this occurs, items may go to the wrong place in the warehouse, or—worse—outbound items may get shipped to the wrong destination. Mobile printing greatly reduces the likelihood of such errors and their associated costs, which can drive costs up by 15%.

Put simply, warehouse operations are intrinsically labor-intensive, which often leads to errors and inefficiencies. By empowering printing at the point-of-use, mobile printers speed time to completion and improve compliance. This change can significantly improve most typical warehouse processes.

◾ **Work in Process (WIP, or Put-Away) Labels**

Inherent delays in the fixed-printer model—routing to and from the printer, time spent at the printer per se—have had a negative effect on put-away. Using mobile printers within integrated environments that include mobile printers, wireless networks, and shared databases can significantly increase efficiency over an architecture that utilizes stationary devices located near, but not at the point where the work actually happens. Specifically, an integrated system empowers personnel to initiate label requests by entering data into a handheld computer that transmits the data to the company's ERP system over a wireless LAN. After the ERP system receives the transmission and updates inventory, information required to create the appropriate label or labels is sent back to the handheld for mobile printing.

### Picking Applications

Since picking is essentially the opposite of putaway, mobile printers can provide this function with similar time and cost savings. By enabling operators to pick multiple orders simultaneously and within a very small footprint, mobile printers drive down empty transit time and drive up productivity. The printers are used to create barcode or RFID labels for each individual item; these are subsequently scanned to speed the sorting of items for shipment.

### Shipping Labels

When a manufacturing process is finished, personnel can use the mobile printer to create a label for the finished goods; or, warehouses and distribution centers can use mobile printers to manage ship-to-order requirements. Workers can use labels and scanning to verify the pick/pack of all items necessary to complete an order, eliminating the need to identify and label final assemblies.

The processing of ship-to-order requests can be improved by labeling items with an order code to associate them with a specific customer during picking or packing. When the order finishes, a mobile printer creates the shipping label, ensuring accuracy in packing and shipping.

## Transportation & Logistics and Parcel Delivery

### Cross-docking Location Indicator Labels

By minimizing steps for personnel, mobile printing optimizes the cross-docking procedures used at a trans-shipment point to save time and labor in moving goods from an inbound vehicle to an outbound vehicle. Staff equipped with mobile devices can receive inbound shipments, log them into the warehouse management or inventory control systems with a mobile computer or handheld device, and then use a mobile printer to create labels with the appropriate cross-docking information. Doing this at the point of use speeds the process while improving accuracy.

### Shelf Edge Labels

In many retail environments, workers travel to and from a central location to pick up "batch printed" labels and shelf tags. While this method works, it also creates wasted movement and potential labeling errors. The RL Series eliminates the danger of "label mix up" by printing labels at the point of application. And, since workers aren't wasting time traveling to a central location, retail applications are far more efficient and productive.

LCD

Sleep Button

Paper Feed

Menu Button

Radio Toggle

USB Port (Mini B)

RS232 (RJ 11)

Power Port

Supplies Door
Opening Lever

Supplies Window

Peel and Present
Mechanism

Fan Fold
Supplies Slot

Cast Magnesium
Print Mechanism

## Accessories

The RL Series comes complete with many of the accessories needed to make installations, especially into environments already served by portable printers, go smoothly. The following items have been designed or specified by the same team that brought you the ultra-rugged printer, so you can be assured that the accessories will work right the first time, and will stand the test of extreme use and abusive environments that the printer was specified to endure.

**Included with each RL Series printer:** (1) battery and (1) swivel belt clip

**RAM Mount Compatible Adapter**

**Voltage Converter**

**Multiple Unit Charging Adapter**

**Double Bay Battery Charger**

**Fuse Box Power Cable Kit**

**IP54 Case**

### required ■ ■ ■

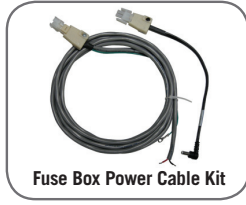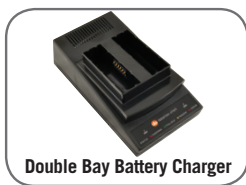| | |
|---|---|
| AC Adapter | AC Adapter (standard or high-capacity*) available with US, UK, Australian, Swiss or Euro plugs |

### recommended ■ ■ ■

*High Capacity AC Adapters only available with US, UK or Euro plugs

| | |
|---|---|
| Serial Cables | DB9 F cables for connecting to a laptop or desktop computer |
| USB Cable | USB download cable (mini B to USB-A) |
| Cleaning Cards & Kits | Use of cleaning cards is recommended to extend the life of the printhead (visit www.datamax-oneil.com/supplies for more information) |

### optional ■ ■ ■

| | |
|---|---|
| RAM Mount™ Compatible Adaptor | Keeps the printer secure yet easily accessible on a forklift. Includes adapter plate and 1-1⁄2" ball. Other parts are available from RAM Mount. |
| Voltage Converter | 12-60V DC/DC power adapter |
| Multiple Unit Charging Adapter | Allows you to charge (4) RL Series printers or (4) 2 bay battery chargers at once, requires a high capacity AC Adapter (sold separately) |
| Spare Battery | Lithium-Ion, 14.8V, 2200 mAh |
| Double Bay Battery Charger | 2-bay battery charger keeps additional batteries charged and ready for use |
| Fuse Box Power Cable Kit, 10' | Charge your printer from a vehicle's fuse box Extension cables available in 3', 6', and 10' lengths for existing installations |
| IP54 Soft Case | Protects your printer from environmental elements such as dust and moisture; meets IP54 test standards |
| Cigarette Lighter Adapter | Allows you to charge the printer from the vehicle cigarette lighter |
| Swivel Mount Belt Loop | Velcro loop fastens comfortably and securely around the belt; keeps the printer secure yet swivels for comfort while bending over or getting in and out of vehicles |
| Hand Strap & Shoulder Strap | Choose either a hand or shoulder strap for maximum comfort and flexibility |
| Universal Mounting Bracket | Quick release locking mechanism and a back plate that can be adapted to mount in a wide variety of places |

## Features and Benefits

The RL4 is ready to add value to manufacturers and distributors by improving the way they identify and move goods and packages within their organization and as they receive from and ship to others. Here's how:

■ **Rugged and Reliable**

With uncompromising standards, the RL4 endures even the most punishing environments, and passes the MIL-STD 810F series of drop testing requirements. The RL4 continues to print reliably after 26 consecutive drops from 6 ft./1.8m to concrete, even at extreme temperature conditions.

■ **Complete Line of Accessories**

The RL4 comes complete with many different ways to charge the printer or its batteries. Mounting accessories make physical integration onto fork trucks and vehicles easy, and for maximum flexibility, we offer four options for wearing the printer.

■ **Easy to Integrate**

The printer is embedded with many mature language emulators, offering "drop-in" compatibility with DPL, ZPL II™, CPCL, EPL, IPL® and XML. The product is also "ready-to-go" into the most popular WMS

■ **Great Battery Power**

The RL series has one 2250 mA-h Lithium-Ion rechargeable battery. And, because it runs at 14.8 Volts, the RL4 is able to continuously operate for over 16 hours in a Wi-Fi application while printing 320 (4'x6" 100mm x 150mm) labels. The RL3 will print over 5500 3"x1" (76.2 x 25.4 mm) labels when operating 8 continuous hours.

■ **Easy to Use**

The LCD tells operators just what they need to know. The printer's large capacity media holder can be easily reloaded with one hand in just seconds.

■ **Complete Line of Media and Supplies**

Our Certified Label Supplies ensure optimum, trouble-free performance from the RL4 and guarantees the highest quality print output and image stability.

■ **Two-Year Warranty**

The RL4 comes with the industry's only two-year standard warranty – twice that of the competition!

## physical characteristics ▪ ▪ ▪

- Dimensions:
  - **RL3**: 5.6" w x 7.6" h x 3.2" d
    (142 x 193 x 81 mm)
  - **RL4**: 6.5" w x 7.9" h x 3.2" d
    (166 x 200 x 81 mm)
- Weight (printer only):
  - **RL3**: 1.95 lbs. (0.88 kg)
  - **RL4**: 2.16 lbs. (0.98 kg)
- Drop specifications:
  - 6 ft. (1.8 m) MIL-STD 810F
- User interface:
  - 128x64 LCD display with white LED backlighting
  - Four (4) button user interface

## user environment ▪ ▪ ▪

- Operating temperature:
  -4° to 122°F (-20° to 50°C)
- Storage temperatures:
  -40° to 140°F (-40° to 60°C)
- Charging temperatures:
  41° to 104°F (5° to 40°C)
- Relative humidity range:
  10% RH to 90% RH non-condensing
- ESD protection:
  **RL4**: 8kV Air/ 6kV Contact
  **RL3**: 6kV Air/ 6kV Contact

## print technology ▪ ▪ ▪

- Printhead:
  - Direct thermal
  - 203 dots per inch (8 dots per mm)
- Print width:
  - **RL3**: 2.8" (72 mm)
  - **RL4**: 4.125" (105 mm)
- Print mechanism speed:
  - 4" per second (102 mm per second)

## memory ▪ ▪ ▪

- 32 MB RAM / 64 MB Flash

## media ▪ ▪ ▪

- Media type:
  - **RL3**: 1.00"– 3.12" (26 – 79 mm)
  - **RL4**: 2.00"– 4.12" (51 – 105 mm)
  - Linered labels, linerless labels or receipt paper
  - Black mark, or gap sensing
  - External fanfold or roll supply
- Maximum roll capacity:
  - 2.65" (67 mm) O.D.
  - 0.75" (19 mm) I.D. core
- Media thickness:
  - 2 mil to 6.5 mil
- For optimum print quality and printer performance, use Certified Datamax-O'Neil supplies.

*\* for use in RL Series printers equipped with linerless option only*

## communication ▪ ▪ ▪

- Serial:
  - RS232, up to 460.8 kbps
- USB:
  - 2.0 (full speed)
- Bluetooth:
  - Supported versions: Version 2.1, Class 2
  - Serial port profile
- 802.11 a/b/g:
  - Network standard: IEEE 802.11 a/b/g
  - Wireless access modes: Infrastructure and ad-hoc
  - Security Protocols:

|                        | WEP    | WPA       | WPA2     |
|------------------------|--------|-----------|----------|
| Modes                  |        | PSK/Enterprise | |
| Security/ Encryption   | 64/128 | TKIP/RC4  | CCMP/AES |
| Authentication         | LEAP, EAP-PEAP, EAP-FAST, EAP-TTLS, EAP-LEAP | | |

- Network support: DHCP, TCP, UDP, DNS, BOOTP

## power source ▪ ▪ ▪

- Battery:
  - 14.8V Lithium-ion, 2200 mAh (33 W-h)
- DC inputs:
  - External DC jack, 11-15V, built-in spike and surge protection
  - External charge contacts, 11-15V, built-in spike and surge protection *(standard on RL4 models only)*
- Recharging:  4 - 6 hours
- Endurance:
  - **RL3**: Prints over 5500 3"x1" (76.2 x 25.4 mm) labels when operating 8 continuous hours.
  - **RL4**: Prints over 320 4"x6" (100 x 150 mm) labels when operating 16 continuous hours.

## agency approvals ▪ ▪ ▪

- Contact sales representative for the most current approval list

## warranty ▪ ▪ ▪

- 2 years when used with approved supplies
- Contact sales representative for extended warranty options

## barcodes/fonts/graphics ▪ ▪ ▪

- Scalable Fonts:
  - CG Triumvirate™ Bold Condensed, CG Triumvirate & CG Times
- Standard fonts:
  - 10.7CPI, 18.5CPI 20.4CPI, 22.6CPI, 34.0CPI, OCR-A, OCR-B (additional fonts available)
- Downloadable font types:
  - True Type, Bitmap
- Character Sets:
  - Unicode/UTF8 support; 50 international symbol sets, Big 5, JIS and Shift JIS and more
- Optional characters:
  - Arabic, Greek, Cyrillic, Hebrew, Unicode subset including Latin
  - Asian (including Big 5, Simplified Chinese, Kanji, Hangul and Shift JIS); additional international characters available
- Barcodes:
  - Linear: Codabar, Code 3 of 9, Code 93, Code 128, EAN-8, EAN13, Interleaved 2 of 5, HIBC, PLESSEY, MSI/Plessey, UCC/ EAN-128, UPC-A, UPC-E, UPC 2 and 5 digit addendums, Postnet, Telepen, UPS MaxiCode, FIM,
  - 2D Symbologies: PDF417, Aztec, QR Code, GS1, Datamatrix, TLC39, MicroPDF417
- Graphics:
  - Supports storage of graphics/logos in Flash memory and transient "print once" graphic

## software/firmware ▪ ▪ ▪

- NETira Label Design – Label creation tool
- NETira Remote Management – Monitor and manage printers
- NETira Configuration Tool – Complete printer set-up utility
- Control Language Compatibility:
  - DPL, ZPL II®, CPCL, IPL™, XML, EPL Easy Print
- Device management compatibility:
  - Wavelink® Avalanche™ MC
- Network Compatibility
  - TCP-IP based networks
  - AS/400 (LPD) based networks
- Drivers:
  - Windows® CE, Windows® Desktop, USB
- Label design software compatibility:
  - BarTender®, Niceware/NiceLabel and others
- ERP Systems:
  - SAP, Oracle
- Software development kit:
  - C++, Visual Basic
  - iOS (Apple), Andriod, Blackberry

## options ▪ ▪ ▪

- 802.11 a/b/g
- Bluetooth communication v2.1
- Linerless

## Zebra QL420

The RL4 exceeds the QL420 in just about every specification that is important to those who use portable printers. **Ultra rugged design**, **higher media capacity** and **battery capacity** keep it running longer without downtime. The full complement of emulations and compatibility with many of today's most popular WMS management programs make it easy for you to install, while the built in ease of use and simple LED keep your customers up and running. At a price that is **18% less up front** with an ultra rugged design that is sure to cost less to own, the choice is easy!

| | Datamax-O'Neil RL4 | Zebra QL420/QL420 Plus |
|---|---|---|
| **Physical** | | |
| Dimensions | 6.5" x 7.9" x 3.2" | 6.0" x 7.5" x 3.0" |
| Weight (printer only) | 34.5 oz. (0.98 kg) | 32.0 oz. (w/battery) (0.91 kg) |
| Drop Specification | **6 ft (1.8m)** | 4 ft (1.52 m) |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serial, USB |
| 802.11 | **Optional 802.11 b/g/a** | Optional 802.11 b/g |
| Bluetooth | Optional ( 2.1 version) | Optional |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal. 203 dots per inch (8 dots per mm) |
| Print Width | 4.09" (104 mm) | 4.09" (104 mm) |
| Print Mechanism Speed | **4" per second** | 3" per second |
| **Media Specifications** | | |
| Capacity | **2.65" (67 mm) max roll diameter approx 124 4x6 labels per roll** | 2.60" (66 mm) max roll diameter approx. 104 4x6 labels per roll |
| ID Core | 0.75" (19 mm) I.D. core | 0.75" (19 mm) or 1.38" (35 mm) |
| Width | 4.12" (105 mm) | 4.12" (105 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2200 mA-H (33 W-H)** | 7.4 V, 4200 mA-H (31 W-H) |
| Flash | **16MB** | 8MB |
| RAM | **64MB** | 16MB |
| **Warranty** | | |
| Printer | **2 years** | 1 year |
| Printhead | **2 years with approved media** | 6 months |
| **Options** | | |
| LCD Display | ✓  Standard | ✓  Standard |
| Bluetooth | ✓  Version 2.1 | ✓  Option |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓  Option | ✓  Option |
| 802.11 | ✓  Option | ✓  Option |
| IrDA | Not Available | Not Available |
| Chargers, serial cables | ✓  Option | ✓  Option |
| **List Price w/802.11 radio and battery** | **$1,395.00** | **$1,642.00** |

## Intermec PB50

While the PB50 looks comparable to the RL4 on paper, once users see, hold and load the printer, then print the first label, the difference is clear. The strength of the **ultra rugged design** builds confidence with your customers when they ask you for an ultra rugged printing solution. "The strongest ZPL emulation out there", compatibility TCP or LPD environments, or a need for an 802.11a radio will keep the RL4 a low risk choice for you if success with your customers is what you need. At a **price that's less** than the PB (if you want a battery), the RL4 is the replacement alternative that's best for your business.

| | Datamax-O'Neil RL4 | Intermec PB50 |
|---|---|---|
| **Physical** | | |
| Dimensions | 6.5" x 7.9" x 3.2" | 6.3" x 6.9" x 3.1" |
| Weight (printer only) | 34.5 oz. (0.98 kg) | 34.4 oz (0.98 kg) |
| Drop Specification | **6 ft (1.8m)** | 5 ft. (1.5 m) |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serial, USB |
| 802.11 | **Optional 802.11 b/g/a** | Optional 802.11 b/g |
| Bluetooth | Optional (version 2.1) | Optional |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal, 203 dots per inch (8 dots per mm) |
| Print Width | 4.09" (104 mm) | 4.25" (108 mm) |
| Print Mechanism Speed | **4" per second** | 4" per second |
| **Media Specifications** | | |
| Capacity | **2.65" (67 mm) max roll diameter approx 124 4x6 labels per roll** | 2.65" (67 mm) max. roll diameter |
| ID Core | 0.75" (19 mm) I.D. core | 0.75" (19 mm) |
| Width | 4.12" (105 mm) | 4.39" (111.5 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2200 mA-H (33 W-H)** | 14.8V, 2200 mA-H (33 W-H) |
| Flash | **16MB** | 16MB |
| RAM | **64MB** | 64MB |
| **Warranty** | | |
| Printer | **2 years** | 1 year |
| Printhead | **2 years with approved media** | 1 year |
| **Options** | | |
| LCD Display | ✓ **Standard** | ✓ Standard |
| Bluetooth | ✓ **Version 2.1** | ✓ Option |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓ Option | ✓ Option |
| 802.11 | ✓ Option | ✓ Option |
| IrDA | Not Available | Not Available |
| Chargers, serial cables | ✓ Option | ✓ Option |
| **List Price w/802.11 radio and battery** | **$1,395.00** | **$1,450.00** |

## Sato MB400i

The RL4 is positioned well above the MB400i, whether it's the **larger capacity battery**, the ability to hold enough supplies so you're not constantly adding more media, or a logical user interface. The value of a design that doesn't require a perfectly planned drop that requires "flat sides of the printer" to line up with the drop surface, shines through at a price that is about **15% less**. A product that is **well supported** with many integration features and the global Datamax-O'Neil support network make the RL4 and easy choice for you and your customers.

| | Datamax-O'Neil RL4 | Sato MB400i |
|---|---|---|
| **Physical** | | |
| Dimensions | 6.5" x 7.9" x 3.2" | 6.7" x 5.3" x 3.0" |
| Weight (printer only) | 34.5 oz. (0.98 kg) | 26.5 oz (0.75 kg) |
| Drop Specification | **6 ft (1.8m)** | no drop spec claimed |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serial, USB |
| 802.11 | **Optional 802.11 b/g/a** | Optional 802.11 b/g |
| Bluetooth | Optional (version 2.1) | Optional (version 1.1) |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal, 203 dots per inch (8 dots per mm), 300 dpi option |
| Print Width | 4.09" (104 mm) | 4.09" (104 mm) |
| Print Mechanism Speed | **4" per second** | 4" per second |
| **Media Specifications** | | |
| Capacity | **2.65" (67 mm) max roll diameter approx 124 4x6 labels per roll** | 2.60" (66 mm) max. roll diameter |
| ID Core | 0.75" (19 mm) I.D. core | 1.0" (25 mm) |
| Width | 4.12" (105 mm) | 4.37" (111 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2200 mA-H (33 W-H)** | 14.8V, 1700 mA-H (25 W-H) |
| Flash | **16MB** | 4MB |
| RAM | **64MB** | 16MB |
| **Warranty** | | |
| Printer | **2 years** | 1 year |
| Printhead | **2 years with approved media** | 1 year |
| **Options** | | |
| LCD Display | ✓ **Standard** | ✓ Option (WLAN only) |
| Bluetooth | ✓ **Version 2.1** | ✓ Option (v 1.1) |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓ Option | ✓ Option |
| 802.11 | ✓ Option | ✓ Option |
| IrDA | Not Available | ✓ Option |
| Chargers, serial cables | ✓ Option | ✓ Option |
| **List Price w/802.11 radio and battery** | **$1,295.00** | **$1,595.00** |

## TEC B-EP4

While the B-EP4 is difficult to find in many major markets, it has some important shortcomings to the end users who require **real ruggedness** and ease of use.  The RL4's full complement of emulations and compatibility with many of today's most popular **WMS management programs** make it easy for you to install, while the built in ease of use and simple LED keep your customers up and running.  If you can find the B-EP4, you will find that the price premium is nothing that brings value to you or your customers when compared to the RL4.  Again, the choice is easy!

| | Datamax-O'Neil RL4 | Toshiba (TEC) B-EP4 |
|---|---|---|
| **Physical** | | |
| Dimensions | 6.5" x 7.9" x 3.2" | 5.7" x 5.9" x 3.0" |
| Weight (printer only) | 34.5 oz. (0.98 kg) | 30.3 oz (0.86 kg) |
| Drop Specification | **6 ft (1.8m)** | 5.2 ft. (1.6 m) |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serial, USB |
| 802.11 | **Optional 802.11 b/g/a** | Optional 802.11 b/g |
| Bluetooth | Optional (version 2.1) | Optional |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal, 203 dots per inch (8 dots per mm) |
| Print Width | 4.09" (104 mm) | Not Available |
| Print Mechanism Speed | **4" per second** | 4" per second |
| **Media Specifications** | | |
| Capacity | **2.65" (67 mm) max roll diameter approx 124 4x6 labels per roll** | 2.68" (68 mm) max. roll diameter |
| ID Core | 0.75" (19 mm) I.D. core | Not Available |
| Width | 4.12" (105 mm) | 4.53" (115 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2200 mA-H (33 W-H)** | 14.8 V, 2600 mA-H (38 W-H) |
| Flash | **16MB** | 8MB |
| RAM | **64MB** | 16MB |
| **Warranty** | | |
| Printer | **2 years** | 1 year |
| Printhead | **2 years with approved media** | 1 year |
| **Options** | | |
| LCD Display | ✓ **Standard** | ✓ Standard |
| Bluetooth | ✓ **Version 2.1** | ✓ Option |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓ Option | ✓ Option |
| 802.11 | ✓ Option | ✓ Option |
| IrDA | Not Available | ✓ Option |
| Chargers, serial cables | ✓ Option | ✓ Option |
| **List Price w/802.11 radio and battery** | **$1,395.00** | **$1,495.00** |

# Zebra QL 320

The RL3 surpasses the Zebra QL320, which is based on 2004 technology, in just about every category.  The **ultra rugged design**, and **higher media and battery capacity** keep it running longer with less downtime. The RL3 comes preinstalled with all emulations that make it **easier to integrate** with the most popular enterprise systems. The RL3 has battery capacity that is 2 times that of the QL320, which makes it ideal for multiple shift use.  The RL3 is backed by a **2 year warranty** and a 15% less up front price provides a quicker ROI and makes it the easy choice.

| | Datamax-O'Neil RL3 | Zebra QL320/QL320 Plus |
|---|---|---|
| **Physical** | | |
| Dimensions | 5.6" x 7.6" x 3.2" | 4.6" x 8.0" x 3.1" |
| Weight (printer only) | 38.4 oz. (1.08 kg) | 26.4 oz (w/battery) (0.91 kg) |
| Drop Specification | **6 ft (1.8m)** | 4 ft (1.2 m) |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serical, USB |
| 802.11 | **Optional 802.11 b/g/a** | Optional 802.11 b/g |
| Bluetooth | Optional (version 2.1) | Optional (version 2.0) |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal, 203 dots per inch (8 dots per mm) |
| Print Width | 2.8" (72 mm) | 2.9" (73.7 mm) |
| Print Mechanism Speed | **4" per second** | 3" per second |
| **Media Specifications** | | |
| Capacity | **2.65" (67 mm) max roll diameter approx 124 3x6 labels per roll** | 2.60" (66 mm) max roll diameter approx 104 3x6 labels per roll |
| ID Core | 0.75" (19 mm) I.D. core | 0.75" (19 mm) or 1.38" (35 mm) |
| Width | 3.12" (79.2 mm) | 3.12" (79.2 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2250 mA-H (33 W-H)** | 7.4V, 2100 mA-H ( 16 W-H) |
| Flash | **64MB** | 8MB |
| RAM | **32MB** | 16MB |
| **Warranty** | | |
| Printer | **2 years** | 1 year |
| Printhead | **1 year** | 6 months |
| **Options** | | |
| LCD Display | ✓ Standard | ✓ Standard |
| Bluetooth | ✓ Version 2.1 | ✓ Option |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓ Option | ✓ Option |
| 802.11 | ✓ Option | ✓ Option |
| IrDA | Not Available | Not Available |
| Chargers, serial cables | ✓ Option | ✓ Option |
| **List Price w/802.11 radio and battery** | **$1,295.00** | **$1,520.00** |

# Zebra QLn 320

The Zebra QLn320 offers an attractive form factor but falls short in the ruggedness and ease of use categories. The RL3 has **double wall construction**, larger gear train, and magnesium parts that provide the extra reliability and durability needed to survive the toughest environments and is backed by a **2 year warranty**. The RL3 has a battery capacity that is **almost twice** that of the QLn320, and provides an additional 120" of media per roll. Multiple language emulation, consistent 4 ips printing and a price that is 12% less when compared to the QLn320 with an extra 1 year warranty make the RL3 the ultimate productivity tool!

| | Datamax-O'Neil RL3 | Zebra QLn 320 |
|---|---|---|
| **Physical** | | |
| Dimensions | 5.6" x 7.6" x 3.2" | 4.6" x 6.8" x 3.3" |
| Weight (printer only) | 38.4 oz. (1.08 kg) | 35.6 oz (w/battery) (0.72 kg) |
| Drop Specification | **6 ft (1.8m)** | 5 ft. (1.5 m) |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serical, USB |
| 802.11 | Optional 802.11 b/g/a | Optional 802.11 a/b/g/n |
| Bluetooth | Optional (version 2.1) | Optional (version 2.1) |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal, 203 dots per inch (8 dots per mm) |
| Print Width | 2.8" (72 mm) | 2.9" (73.7 mm) |
| Print Mechanism Speed | 4" per second | 4" per second |
| **Media Specifications** | | |
| Capacity | **2.65" (67 mm) max roll diameter approx 124 3x6 labels per roll** | 2.60" (66 mm) max roll diameter approx 104 3x6 labels per roll |
| ID Core | 0.75" (19 mm) I.D. core | 0.75" (19 mm) or 1.38" (35 mm) |
| Width | 3.12" (79.2 mm) | 3.12" (79.2 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2250 mA-H (33 W-H)** | 7.4V, 2330 mA-H ( 17 W-H) |
| Flash | 64MB | 256MB |
| RAM | 32MB | 128MB |
| **Warranty** | | |
| Printer | **2 years** | 1 year |
| Printhead | **1 year** | 6 months |
| **Options** | | |
| LCD Display | ✓ Standard | ✓ Standard |
| Bluetooth | ✓ Version 2.1 | ✓ Option |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓ Option | ✓ Option |
| 802.11 | ✓ Option | ✓ Option |
| Chargers, serial cables | ✓ Option | ✓ Option |
| **List Price w/802.11 radio and battery** | **$1,295.00** | **$1,370.00** |

# Intermec PB32

The PB32 looks comparable to the RL3 on paper, but once users see, hold and load the printer, and then print the first label, the difference is clear. The strength of the **ultra rugged design** will build confidence with customers once they experience the double wall construction, with gears and latches designed to handle multiple drops. The RL3 is preinstalled with **8 different printer languages** and eliminates any need to load the right emulation. Wireless options like **802.11 a/b/g and Bluetooth** provide customers with greater communication options. The RL3 is backed by a 2 year warranty which provides a higher ROI and makes the RL3 the right product for an enterprise environment.

| | Datamax-O'Neil RL3 | Intermec PB32 |
|---|---|---|
| **Physical** | | |
| Dimensions | 5.6" x 7.6" x 3.2" | 5.0" x 7.2" x 3.2" |
| Weight (printer only) | 38.4 oz. (1.08 kg) | 127 mm x 182 mm x 81 mm |
| Drop Specification | **6 ft (1.8m)** | 5 ft. (1.5 m) |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serial, USB |
| 802.11 | **Optional 802.11 b/g/a** | Optional 802.11 b/g |
| Bluetooth | **Optional (version 2.1)** | Optional (version 2.0) |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal, 203 dots per inch (8 dots per mm) |
| Print Width | 2.8" (72 mm) | 2.8" (72 mm) |
| Print Mechanism Speed | 4" per second | 4" per second |
| **Media Specifications** | | |
| Capacity | 2.65" (67 mm) max roll diameter approx 124 3x6 labels per roll | 2.65" (67 mm) max roll diameter approx 124 3x6 labels per roll |
| ID Core | 0.75" (19 mm) I.D. core | 0.75" (19 mm) |
| Width | 3.12" (79.2 mm) | 3.3" (83.8 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2250 mA-H (33 W-H)** | 7.4V, 2300 mA-H (17 W-H) |
| Flash | 64MB | 64MB |
| RAM | **32MB** | 16MB |
| **Warranty** | | |
| Printer | **2 years** | 1 year |
| Printhead | 1 year | 1 year |
| **Options** | | |
| LCD Display | ✓ Standard | ✓ Standard |
| Bluetooth | ✓ **Version 2.1** | ✓ Option |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓ Option | ✓ Option |
| 802.11 | ✓ Option | ✓ Option |
| IrDA | Not Available | Not Available |
| Chargers, serial cables | ✓ Option | ✓ Option |
| **List Price w/802.11 radio and battery** | **$1,295.00** | **$1,295.00** |

# Monarch Sierra Sport 3 9433

The RL3 provides the **flexibility, reliability and ruggedness** that any enterprise expects in a portable label printer. The RL3 has superior media and battery capacity while leading with **higher memory and print speed**. This is all important because customers expect that a printer is reliable enough to print on-demand with the horsepower and capacity to print for extended periods of time. Print jobs print faster with its fast processing and consistent 4 ips, even when the battery is low. Although the Sierra Sport3 is priced less, the RL3 offers a better ROI with larger media and battery capacity, making the RL3 an easy choice.

| | Datamax-O'Neil RL3 | Monarch Sierra Sport 3™ 9433 |
|---|---|---|
| **Physical** | | |
| Dimensions | 5.6" x 7.6" x 3.2" | 6.3" x 6.9" x 3.1" |
| Weight (printer only) | 38.4 oz. (1.08 kg) | 34.4 oz (0.98 kg) |
| Drop Specification | **6 ft (1.8m)** | 5 ft. (1.5 m) |
| **Communications** | | |
| Serial | RS232 Standard, USB | RS232 Serial, USB |
| 802.11 | **Optional 802.11 b/g/a** | Optional 802.11 b/g |
| Bluetooth | **Optional (version 2.1)** | Optional |
| **Print Technology** | | |
| Printhead | Direct thermal, 203 dots per inch (8 dots per mm) | Direct thermal, 203 dots per inch (8 dots per mm) |
| Print Width | 2.8" (72 mm) | 2.8" (72 mm) |
| Print Mechanism Speed | **4" per second** | 3.5" per second |
| **Media Specifications** | | |
| Capacity | **2.65" (67 mm) max roll diameter approx 124 3x6 labels per roll** | 2.5" (64 mm) max roll diameter |
| ID Core | 0.75" (19 mm) I.D. core | 1.00" (25 mm) |
| Width | 3.12" (79.2 mm) | 3.15" (83.8 mm) |
| **Battery** | | |
| Type | Lithium Ion | Lithium Ion |
| Capacity | **14.8 V, 2250 mA-H (33 W-H)** | 7.4V, 2200 mA-H (16 W-H) |
| Flash | **64MB** | 4MB |
| RAM | **32MB** | 2MB |
| **Warranty** | | |
| Printer | 2 year | 2 year |
| Printhead | 1 year | 1 year |
| **Options** | | |
| LCD Display | ✓ Standard | ✓ Standard |
| Bluetooth | ✓ **Version 2.1** | ✓ Option |
| Magnetic Card Reader | Not Available | Not Available |
| Linerless | ✓ Option | ✓ Option |
| 802.11 | ✓ Option | ✓ Option |
| IrDA | Not Available | Not Available |
| Chargers, serial cables | ✓ Option | ✓ Limited |
| **List Price w/802.11 radio and battery** | **$1,295.00** | **$1,250.00** |

datamax·o'neil
CERTIFIED SUPPLIES

You can receive the same quality and reliability in our supplies that you have come to expect from our printer products. Choosing Datamax-O'Neil IQ Certified Supplies means that you're selecting supplies that have been certified by our engineers for use in our printers. It's the key to extending the life of the thermal print head, minimizing downtime and maintaining optimal performance throughout the life of the printer.

A broad breadth of Datamax-O'Neil Certified Printer Supplies is available for the RL Series. The ShopSmart Catalog lists supplies and a variety of readily available die cut and perforated linter labels, as well as a selection of liner-less labels.

## Datamax-O'Neil Printer: RL3

### Direct Thermal Linered/Linerless Labels - 0.75" Core ID, 2.65" Roll OD

| Part Number | Width x Length | Shipping Location | Approx. LBS/CTN | Rolls/CTN | Labels/Roll |
|---|---|---|---|---|---|
| 740854-912 | 2.0" x 1.0" Die Cut (0.125" gap) - PERM | CA | 14 | 50 | 645 |
| 740855-909 | 3.0" x 2.0" Die Cut (0.125" gap) - PERM | CA | 14 | 50 | 340 |
| 740855-202 | **Linerless/REM 3.0" x 113' | CA | 33 | 30 | N/A |
| 740855-203 | **Linerless/PERM 3.0" x 113' | CA | 33 | 30 | N/A |

### Direct Thermal Receipt Papers - 0.75" Core ID, 2.65" Roll OD

| Part Number | Width x Length | Shipping Location | Approx. LBS/CTN | Rolls/CTN | Labels/Roll |
|---|---|---|---|---|---|
| 740855-102 | RL3 - Premium 3.0" x 164' - Continuous | CA | 8 | 50 | N/A |

### Cleaning Card

| Part Number | Width x Length | Shipping Location | Approx. LBS/CTN | Rolls/CTN | Labels/Roll |
|---|---|---|---|---|---|
| 770190-200 | RL3 Label - Cleaning Card | CA | 1 | 25 | Cleaning Cards |

## Datamax-O'Neil Printer: RL4

### Direct Thermal Linered/Linerless Labels - 0.75" Core ID, 2.65" Roll OD

| Part Number | Width x Length | Shipping Location | Approx. LBS/CTN | Rolls/CTN | Labels/Roll |
|---|---|---|---|---|---|
| 740854-914 | 4.0" x 2.0" Die Cut (0.125" gap) - PERM | CA | 15 | 50 | 370 |
| 740854-915 | 4.0" x 3.0" Die Cut (0.125" gap) - PERM | CA | 15 | 50 | 245 |
| 740854-916 | 4.0" x 4.0" Die Cut (0.125" gap) - PERM | CA | 15 | 50 | 185 |
| 740854-910 | 4.0" x 6.0" Die Cut (0.125" gap) - PERM | CA | 17 | 50 | 123 |
| 740854-202 | **Linerless/REM 4.0" x 85' | CA | 33 | 30 | N/A |
| 740854-203 | **Linerless/PERM 4.0" x 85' | CA | 33 | 30 | N/A |

### Direct Thermal Receipt Papers - 0.75" Core ID, 2.65" Roll OD

| Part Number | Width x Length | Shipping Location | Approx. LBS/CTN | Rolls/CTN | Labels/Roll |
|---|---|---|---|---|---|
| 740854-102 | RL4 - Premium 4.0" x 168' - Continuous | CA | 9 | 50 | N/A |

### Cleaning Card

| Part Number | Width x Length | Shipping Location | Approx. LBS/CTN | Rolls/CTN | Labels/Roll |
|---|---|---|---|---|---|
| 770182-200 | RL4 Label - Cleaning Card | CA | 1 | 25 | Cleaning Cards |

## PC Software

### Windows Drivers

The RL4 has drivers for use on the latest Windows operating systems. The drivers allow the user to view and change printer settings from any Windows software application, simplifying the print process. The drivers are available on the CD included with the printer or can be downloaded at www.datamax-oneil.com

### Printer Configuration Tool

NETira™ Configuration Tool (NETira™ CT) is a Windows-based configuration tool that provides easy setup and configuration for the RL4. The modern look and feel helps simplify printer setup with a single menu structure. Numerous option selections are available to give users quick access to communication setup, customizable default settings and printer diagnostics. NETira™ CT will save significant time when configuring and deploying multiple printers giving operators time to focus on other business activities.

### Label Designer

For small/medium business user applications that require simple label designs, Datamax-O'Neil offers NETira LD, a free out of the box label creation tool that is easy to use and quickly turns desktop printers into a labeling solution.

### Third Party Label Design Softwar

The RL4 supports the industry leading label design software packages and we have worked to ensure the highest level of performance and maximum capabilities are utilized with our printers. Label design software can be downloaded from:

Bartender:  www.seagullscientific.com

Niceware/Nicelabel: www.nicelabel.com

Codesoft/Labelview: www.teklynx.com

## Device Management Software

### Wavelink Avalanche Enabled

Wavelink Avalanche Mobility Center™ software is pre-loaded on the wireless, 802.11 enabled RL4 printers. Users of Wavelink can remote monitor and configure the RL4 wireless printers along with other wireless devices on the same network to provide extensive management functionalities that include centralized remote management, performance monitoring, software distribution and crucial device security.

### Monitor and Manage Datamax-O'Neil Printers

NETira RM offers remote monitoring and management of Datamax-O'Neil printers from a single customized console to maximize printer efficiency.  This Windows-based tool provides a single interface where the printers can be viewed, customized, updated and diagnosed in real time.  Proactive alerts, scheduled updates and XML logs help to maintain the deployment of printers and reduce printer downtime.

## Firmware and Emulations

Printer firmware is the printer's operating system which dictates how the printer runs and reacts to input. Check the website or with your local representative to find out about the full capabilities of the RL4 firmware. The firmware controls printing, configuration, and emulations.  Development is open sourced and updates are published regularly.

### Printing

The printer's firmware controls every aspect of printing.  Whether you are trying to print text, graphics, or barcodes the firmware allows printing to be done quickly and efficiently.  To get the best results you should send printer commands to generate your printed output.

### Printer Configuration

The printer firmware also controls how the printer is configured.  Many software utilities provide a quick and easy method to change printer settings however the firmware has more functionality than what may be available in the configuration software.  Refer to the printer programmer's guide for the full capabilities of the software.

### Emulations

Emulation is the firmware's ability to communicate in another printer's command language. This allows for the easy replacement of another manufacturers product without the need for a software or driver change. The RL4 is shipped with multiple printer languages allowing users flexibility to communicate in many different environments. The RL4 supports:

DPL – Datamax-O'Neil printer language

CPCL, EPL and ZPL II – Zebra printer language

IPL – Intermec printer language
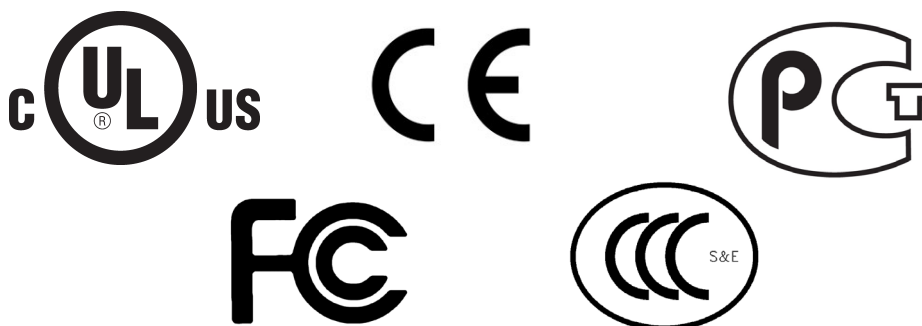
XML -  Extensible Markup Language

### Networks and ERPs

The RL4 comes ready to be integrated into many of the existing ecosystems where portable bar-code label printing is at home – all without the need for special firmware upgrades!

- The RL4 is ready to be dropped into TCP-IP Networks as well as those that require the LPD protocol (AS/400, etc.)

- RL4 has the capability to work with many of the most popular ERP systems.  It has already proven its ability to store forms from SAP, drop into XML environments for Oracle, or pass compatibility testing with Manhattan Associates software.  The RL4 will keep your integration costs to a minimum, and will virtually eliminate your risk of losing the trust of customers with an easy drop-in integration.

### Updates

The current firmware version of your printer is listed in the self-test printout. Firmware can be updated by uploading the new firmware file to the printer.  Detailed instructions for uploading are included with the firmware file. Development updates are always being made to improve performance and enhance or add features. These updates are posted at www.datamax-oneil.com .

| Certification | D-O RL4 | D-O RL3 | Zebra QLn 320 | Zebra QLn 320 | Intermec PB |
|---|---|---|---|---|---|
| cUL | X | X | | | X |
| CSA | | | X | X | |
| UL | X | X | X | X | |
| CCC (China) | X | TBA | | | |
| SRRC (China) | TBA | TBA | | | |
| CE | X | X | X | X | X |
|   EN55022 Class B | X | TBA | X | X | X |
|   EN55022 Class A | | X | | | |
|   EN55024 | X | X | X | X | X |
|   S/B EN61000 | X | X | X | X | |
|   IEC 60950-1/EN60950 | X | X | X | X | X |
| FCC Class B | X | TBA | X | X | X |
| FCC Class A | | X | | | |
| GOST-R (Russia) | X | X | | | |
| Anatel (Brazil) | X | TBA | | | |
| CoC (Mexico) | X | X | | | |
| NOM (Mexico) | | | | X | X |
| VCCI (Japan) | | | X | X | |
| TUV | | | X | X | |
| C-Tick (Australia) | | | | X | |

## Service Options

Datamax-O'Neil now offers the most cost-effective product warranty programs to ensure that your business-critical printing applications continue trouble free and without interruption – long after the original warranty period has ended.  You also get the peace of mind in knowing that service and repair is coming from the manufacturer, who has the infrastructure to ensure you receive the very best service at the most competitive price. Our Extended Warranty Service Agreements have been designed with a consistent and simple structure, enabling you to select a program that best suits your needs.  The following features are provided:

- Quick Response Times
- A Variety of Comprehensive Coverage Options
- A Broad Choice of Contract Duration Options
- Ease of Purchase and Registration
- Upgradability to Other Service Options

Obtaining an Extended Warranty is easy.  At the time of purchase or at any time during the Standard Warranty period, an Extended Warranty can be purchased to add up to 4 years to your printer's coverage.  Then, choose from one of 3 value-added options to accommodate your business needs:

- Priority – with a 2-day turnaround on warranty repairs (standard warranty is 5-day turnaround).
- Printer Express - a "hot swap" exchange through a managed pool of customer-owned inventory
- Comprehensive - "no fault" comprehensive coverage

You can rest assured that printers covered by Datamax-O'Neil service options will continue to deliver top quality results for the duration of the agreement.

## Warranty Service Procedures

A downloadable "Return Material Authorization (RMA)" form is available at www.datamax-oneil.com. It is necessary to obtain and print your RMA number clearly on your package before shipping.

## Limited Warranty

Datamax-O'Neil warrants to Purchaser that under normal use and service, the RL4 Printer, purchased hereunder shall be free from defects in material and workmanship for a period of 2 years from the date received. Expendable and/or consumable items or parts such as lamps, fuses, labels and ribbons are not covered under this warranty. This warranty does not cover equipment or parts that have been misused, altered, neglected, handled carelessly, or used for purposes other than those for which they were manufactured. This warranty also does not cover loss, damages resulting from accident, or damages resulting from unauthorized service.

## Available Printer Configurations

The RL4 is as easy to order as it is to use. Just select the communication interfaces and media handling options, then place a call into your customer service representative.

### Printers

| H | 4 | | 0 | 0 | | - | 1 | 0 | 0 |

**Printer Model**

| | |
|---|---|
| RL4, 4 in / 102 mm wide with USB and LCD | 4 |

**Communication Interface Options**

| | |
|---|---|
| RS-232 and USB only (Serial) | 0 |
| Serial and Bluetooth v2.1 | 1 |
| Serial and 802.11 b/g/a | 2 |

**Not Used**

| | |
|---|---|
| Not Used | 0 |

**Not Used**

| | |
|---|---|
| Not Used | 0 |

**Special Media Handling Options**

| | |
|---|---|
| None (with external paper slot capacity) | 0 |
| Liner-less Media Capability | 1 |

**Regional Specification**

| | |
|---|---|
| Global Document Package | 1 |

**Not Used**

| | |
|---|---|
| Not Used | 0 |

**Not Used**

| | |
|---|---|
| Not Used | 0 |

# RL3

**Ordering Notes:**
1) Printer includes (1) battery and (1) swivel belt clip
2) Two batteries recommended.
3) Power supply must be ordered separately.
4) All RL3 printers include a standard factory warranty period of two years.

| R | L3 | - | DP | - | 0 | 0 | | 0 | 0 | | 0 | 0 |
|---|----|---|----|---|---|---|---|---|---|---|---|---|

**Printer Model**

| | |
|---|---|
| RL3 - 3 in / 76 mm wide with USB and LCD | L3 |

**Custom Kit**

| | |
|---|---|
| Datamax-O'Neil Portable | DP |

**Not Used**

| | |
|---|---|
| Not Used | 0 |

**A/C Power (Autorange Supply) Configuration and Cord**

| | |
|---|---|
| No Power Cord Supplied | 0 |

**Special Media Handling Options**

| | |
|---|---|
| None (with external paper slot capacity) | 0 |
| Liner-less Media Capability | 1 |

**Not Used**

| | |
|---|---|
| Not Used | 0 |

**Not Used**

| | |
|---|---|
| Not Used | 0 |

**Communication Interface Options**

| | |
|---|---|
| RS-232 and USB only (Serial) | 0 |
| Serial and Bluetooth v2.1 | 1 |
| Serial and 802.11 b/g/a | 2 |

**External Charging Contacts**

| | |
|---|---|
| Do Not Include This Option | 0 |

**Regional Specification**

| | |
|---|---|
| Global Document Package | 0 |

## RL3 & RL4

D [ ] - WS - W [ ] P [ ] E [ ] C [ ]

**Printer Model**

| | |
|---|---|
| RL4 Printers | S1 |
| RL3 Printers | S2 |

**Custom Kit**

| | |
|---|---|
| Warranty Service | WS |

**Extended Warranty**

| | |
|---|---|
| Always 'W' | W |

**Extended Warranty Term**

| | |
|---|---|
| Not Selected | 0 |
| 3 Years (Standard Warranty + 1 Year) | 3 |
| 5 Years (Standard Warranty + 3 Years) | 5 |

**Value Add - Priority Level**

| | |
|---|---|
| Always 'P' | P |

**Value Add - Priority Term**

| | |
|---|---|
| Not Selected | 0 |
| 2 Years (Duration of Standard Warranty) | 2 |
| 3 Years | 3 |
| 5 Years | 5 |

**Value Add - Printer Express Level**

| | |
|---|---|
| Always 'E' | E |

**Value Add - Printer Express Term**

| | |
|---|---|
| Not Selected | 0 |
| 2 Years (Duration of Standard Warranty) | 2 |
| 3 Years | 3 |
| 5 Years | 5 |

**Value Add - Comprehensive Level**

| | |
|---|---|
| Always "C" | C |

**Value Add - Comprehensive Term**

| | |
|---|---|
| Not Selected | 0 |
| 2 Years (Duration of Standard Warranty) | 2 |
| 3 Years | 3 |
| 5 Years | 5 |

## Accessories and Peripherals

The RL4 comes with a full complement of accessories, developed and ready for your specific application, and more are being added throughout the year.  Please go to www.datamax-oneil.com to see additional accessories if you need something that is not included on the list, or contact your customer service representative about pursuing a custom product request to ensure an engineered solution that is right for you.

| PART NUMBER | DESCRIPTION |
|---|---|
| **Chargers and Batteries** | |
| 220515-100 | AC Adapter, Universal , US plug |
| 220516-100 | AC Adapter, Universal , Euro plug |
| 220517-100 | AC Adapter, Universal, U.K. plug |
| 220521-100 | AC Adapter, Universal , Swiss plug |
| 220518-100 | AC Adapter, Universal, Australian plug |
| 220282-000 | DC/DC Voltage converter (12v-60v) |
| 220207-200 | Vehicle Charge Cable Kit, 10'/3m |
| 510116-001 | Cigarette Lighter adapter |
| 220275-000 | Battery Charging Cradle (2 up) |
| 210236-101 | Multiple Unit charging Adapter (1 into 4 power cable) |
| 220180-100 | AC Adapter, High Capacity , Universal , US plug (for use with 210236-101) |
| 220181-100 | AC Adapter, High Capacity , Universal , Euro plug (for use with 210236-101) |
| 220182-100 | AC Adapter, High Capacity , Universal , UK plug (for use with 210236-101) |
| 550046-000 | Spare Battery |
| **Communication Cables** | |
| 210304-100 | USB Cable (mini B to USB-A) |
| 210164-100 | Data Cable RJ11 to DB-9 Female Coiled |
| 210191-101 | Data Cable RJ11 to DB-9 Female Non-Coiled , 7' (2.1m) |
| **Communication Cables** | |
| 280656-000 | Belt Clip |
| 220276-000 | Belt Loop |
| 220277-000 | Hand strap |
| 220278-000 | Shoulder Strap |
| 220279-000 | IP54 Case |
| 220280-000 | "RAM Mount" compatible Adapter and Ball |
| 220280-000 | Universal Bracket |

# right by our customers ▪ ▪ ▪



## around the world.

### North America

**Corporate Headquarters - Florida**
4501 Parkway Commerce Blvd.
Orlando, FL 32808
Tel: 800-816-9649
Fax: 407-578-8377

**California**
8 Mason
Irvine, CA 92618
Tel: 949-458-0500
Fax: 949-458-0708

**Datamax-O'Neil Printer Supplies**
7656 E. 700th Avenue
Robinson, IL 62454
Tel : 618-546-5418
Fax : 618-546-1518

### Asia Pacific

**Singapore**
9 Toh Guan Road East
#04-01 Alliance Building
Singapore 608604
Tel: +65-6505-2250
Fax: +65-6769-8135

**China**
Room 1016, FL 10 Tianjian Bldg.
6th Huixinnanli
Chaoyang District, Beijing 100011
Tel: +86-10-6496-9313
Fax: +86-10-6494-8937

298, Wu Tang Road, Feng Xian
District, Shanghai 201401
Tel: +86-21-6163-5862
Fax: +86-21-5743-2002

**Thailand**
2nd Floor, RN Building
961 Rama 3 Rd
Bangpongpang, Yannawa
Bangkok 10120
Tel: +66-2-689-7333
Fax: +66-2-686-3433

**Australia**
Suite 201, T1 Building
Norwest Business Park
14-16 Lexington Drive
Sydney NSW 2153
Tel: +61-2-9421-5602
Fax: +61-2-9421-5699

### Europe, Middle East, and Africa

**France**
9 Rue Gaspard Monge
26500 Bourg-lès-Valence
Tel: +33 (0) 4 75 75 63 00
Fax: +33 (0) 4 75 82 98 39

**UK**
Alexander Fleming Building
University Boulevard
Nottingham Science Park
Nottingham NG7 2RF
Tel: +44 (0) 790 968 1728
Fax: +33 (0) 4 75 82 98 39

**Germany**
Schockenriedstrasse 8c
70565 Stuttgart
Tel: +49 (0) 6103-8316870
Fax: +33 (0) 4 75 82 98 39

**Austria**
Zweigniederlassung Österreich
Lemböckgasse 47b
1230 Wien
Tel: DE:+ 49 (0) 173 340 7745
Tel: SLO: +386 (0) 31 626 800
Fax: +33 (0) 4 75 82 98 39

### Latin America

**Mexico**
Av. Central No. 186-B
Col. Nueva Industrial Vellejo
C.P 07700, Mexico DF
Tel: +52-55-1168-6146
Fax: +52-55-1168-6102

**Argentina**
Av. Franklin D. Roosevelt 4989
Suite 303
Buenos Aires (C1431BZC)
Tel: +54-11-5555-6519
Fax: +54-11-4521-8022

**www.datamax-oneil.com**

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