



# Streamline warehouse operations with rugged high-performance Bluetooth cordless scanning



With the cordless Symbol LS3578, workers have the freedom to take scanning capabilities right to the point of work to automate and help error-proof data capture throughout warehouse operations. And the use of Bluetooth wireless technology brings a new level of affordability to cordless scanning.

## The challenge: improve productivity and accuracy for forklift operators in the warehouse

At the heart of manufacturing and distribution operations is the warehouse. It is through this critical center of business operations that all materials must pass — from incoming raw materials for manufacture into finished goods to incoming finished goods to fulfill orders to outbound shipments to end customers. As forklift operators move large volumes of product in, through and out of this hub each day, the warehouse manager must ensure that the right product is in the right place at the right time. Anything less than peak efficiency and accuracy in warehouse operations — from receiving and put-away to picking, shipping and replenishment — can negatively impact overall profitability. Manual procedures and a lack of information on the warehouse floor can cause inventory inaccuracies and long cycle times, resulting in real or false out-of-stocks, unplanned production line downtime, delays in order fulfillment, lost sales and reduced customer satisfaction — and retention.

## The solution: A perfect match — Bluetooth cordless scanning and a vehicle mount computer

The pairing of the VC5090 Vehicle Mount Computer and the Symbol LS3578 cordless Bluetooth scanner from Motorola enables forklift operators to achieve new levels of throughput and accuracy across all warehouse operations — from receiving and replenishment to put-away, picking and shipping.

The VC5090 brings mobile computing capabilities to material handling equipment, such as the forklift. Built to handle the repetitive pounding and vibrations of forklift operation, the VC5090 offers the industrial and military grade specifications for vibration, shock, temperature and sealing, required to ensure all-day every day reliable operation on the warehouse forklift. This mobile computer offers a keypad designed for gloved hands as well as a large crisp screen — and support for 802.11a/b/g enables work orders and more to be sent wirelessly right to the point of work to keep forklift operators moving and productive.

## KEY BENEFITS

Streamlines operations and maximizes productivity in harsh warehouse environments

Virtually error-proofs key warehouse functions including picking and put-away

Standard Bluetooth technology seamlessly integrates into existing mobility architecture and provides secure, reliable transmission of data

Accurately reads even damaged, poorly printed and dirty bar codes with the Symbol LS3578FZ

Superior working range enables scanning of items as close as 4 inches and as far as 45 feet via the Symbol LS3578ER

Helps ensure secure wireless transmission of data to host

Rugged, industrial construction delivers superior uptime and low cost of ownership

When the Symbol LS3578 cordless bar code scanner is utilized in conjunction with the VC5090, productivity is further improved and the common errors throughout warehouse processes are virtually eliminated. The Symbol LS3578 cordless bar code scanner brings advanced mobile data capture to the forklift environment. Instead of requiring operators to type information into the VC5090 to obtain the data required to complete a task, forklift operators can simply scan the bar code. Time spent manually keying in data is virtually eliminated, along with the errors inherent in manual data entry. As a result, forklift operators are more productive and able to complete more tasks per day — the same staff can now handle more throughput, and congestion at the receiving dock, in the put-away staging area and more can be reduced or eliminated.

The rugged Symbol LS3578 is also designed for the demanding warehouse environment. IP65 sealing provides protection against dust and water. A maximum 6.5 ft./2m drop specification ensures reliable operation in spite of repeated drops to concrete. The cordless design is ideal for forklift operation — there are no cables to manage or break, simplifying operation and improving operator safety. And Bluetooth meets enterprise security requirements — data in transit between the VC5090 Vehicle Mount Computer and the LS3578 Cordless Scanner is secure and protected.

### **Improve throughput and accuracy throughout the warehouse**

When you empower your forklift operators with the combined capabilities of the VC5090 and the Symbol LS3578, warehouse operations are streamlined, staff efficiency is improved, and costly errors are virtually eliminated throughout warehouse processes:

#### **Receiving and put-away**

The Symbol LS3578 and VC5090 help maximize the efficiency of your receiving and put-away functions. Real-time work orders are sent to the VC5090. When a forklift operator is approaching a shipment, a quick scan of the bar code labels on the shipment verifies that the operator is about to pick up the right shipment. In addition, the operator can view a variety of data on the VC5090 screen — including the product's destination and the fastest route to that destination.

As forklift operators approach the intended storage spot, the wide working range of the Symbol LS3578ER (extended range model) enables easy

scanning of shelf tags from as far as 45 feet away to verify proper location. This confirmation virtually eliminates put-away errors and lost inventory, ensuring that materials are in the right location to fill orders and replenish assembly lines without delay. The cordless design enables operators to easily step away from the forklift when needed to scan items. And the wide working temperature range ensures reliable operation throughout the warehouse — from warm and cold docks to dry storage and coolers.

With the Symbol LS3578 and the VC5090 on board your forklifts and other material handling equipment, your product will be in the right place — visible in inventory and available for order fulfillment or production line replenishment. The pairing of these two Motorola products can help ensure your orders are shipped on time, as well as provide protection against the high cost of unplanned downtime on a production line.

#### **Picking**

The cordless operation of the Symbol LS3578, combined with the forklift mount VC5090 mobile computer, dramatically streamlines and error-proofs the picking process. Pick orders are delivered right to the VC5090 complete with the product's location and fastest route. Scanning an item with the Symbol LS3578 verifies the right item was selected, enabling operators to instantly correct a wrong pick. Since damaged labels can be common in a warehouse environment, the Symbol LS3578FZ offers integrated fuzzy logic technology, providing the sophisticated algorithm required to enable the interpolation of even damaged, dirty or poorly printed bar codes. And in large warehouses, the LS3578ER provides a wide working range needed to accurately scan bar codes as far as 45 ft./13.7m away — forklift operators can easily scan items on the upper shelves before picking, eliminating time that might otherwise be wasted picking and replacing the wrong product.

#### **Replenishment**

With the Symbol LS3578, your forklift operators have the technology onboard to rapidly respond to line-side calls for product replenishment. Replenishment orders can be sent directly to the VC5090 seconds after the request is made. Since forklift operators can verify the product prior to selection, the right product is delivered to the production line. The enterprise enjoys valuable protection against unplanned line downtime — and the associated cost of idle labor and delayed order fulfillment.

## Shipping

When workers in the shipping department are equipped with the Symbol LS3578 bar code scanner, a mobile computer and Bluetooth printer, new levels of efficiency and accuracy are achieved in the shipping process. A quick scan of an outgoing shipment ensures the right items are being staged for the right truck in the right order. And workers can automatically print out required paperwork to a standard Bluetooth-enabled printer — no wires required. As a result, workers can ship more orders per day, helping to minimize shipping delays and bottlenecks. And the right products are shipped to the right customer, eliminating shipping errors that can threaten customer satisfaction and retention.

## The VC5090 and the Symbol LS3578 from Motorola: delivering capital and operational benefits in the warehouse

By combining the strengths of the VC5090 and the Symbol LS3578, enterprises can achieve a number of strategic business advantages in the warehouse that provide a rapid return on investment (ROI) — the resulting process automation improves productivity, increases throughput and reduces errors. And the ability to connect the Symbol LS3578 to the VC5090 via Bluetooth brings a number of unique advantages to mobile warehouse solutions. In addition to a new low price point for cordless scanning, Bluetooth combines with the rugged design of the LS3578 to reduce the capital costs, providing a lower total cost of ownership (TCO) and a new level of flexibility for warehouse mobility solutions through:

### A new level of affordability for cordless scanning

Until now, while cordless scanning was highly desirable in the warehouse, the cost of cordless scanning was prohibitive. But the use of Bluetooth enables a significant cost reduction for cordless scanning due to:

- The elimination of the need for a cradle for communications and scanning — The Symbol LS3578 eliminates the need to purchase expensive cradles with embedded intelligence. A radio base is no longer required since Bluetooth enables direct communication with the terminal (in this case, the VC5090). And while charging cradles are available, they are not required. The average battery will last well beyond the typical shift — 20 hours even when operators are scanning constantly — enabling the simple swap of batteries at the end of a shift.



When the Symbol LS3578 is paired with the VC5090, forklift operators have the tools they need to achieve new levels of throughput and accuracy across all warehouse operations — from receiving and replenishment to put-away, picking and shipping.

- The reduction in radio costs — the Bluetooth radio is more powerful, but costs less than the prior generation of radios that supported cordless scanning.

### Elimination of the single largest point of vulnerability on a scanner

The greatest point of failure on any scanner is typically the cable. The removal of the cord eliminates that major source of vulnerability, and the associated need to replace cables regularly. Downtime is reduced and the cost to purchase, maintain and manage cables is eliminated.

### Improved extensibility

The use of Bluetooth extends the usability beyond the VC5090. The standards-based Symbol LS3578 can communicate with other mobile computers equipped with Bluetooth. For example, Motorola's MC70 might be the ideal device for workers in the will-call area of the warehouse. The easy-to-carry compact device provides push-to-talk voice capabilities as well as data communications and bar code scanning. While the bar code scanning functionality of the MC70 may cover the needs of the will-call worker 90 percent of the time, since the MC70 offers an integrated Bluetooth radio, the Symbol LS3578 can be paired with the MC70 to provide long-range scanning when required. Now the same device can perform multiple duties throughout the warehouse environment, simplifying the mobility architecture and further improving return on investment (ROI).

### **Choose Motorola for your end-to-end warehouse mobility solutions**

When you choose Motorola for your enterprise mobility solution, you choose the strength of an industry leader — and the power of tested and proven end-to-end solutions. Regardless of whether you need mobility inside or outside the enterprise walls, there is a Motorola device that is right for the job — from bar code scanners to rugged or PDA-style handheld integrated voice and data devices to vehicle-mount workstations and notebook computers. Our mobility solutions offer the reliability, security, manageability and superior uptime that your mission-critical applications demand. Our world-class business partners provide best-in-class applications that integrate easily with your existing environment to minimize deployment costs and disruption of day-to-day business procedures. Our planning services can help ensure your mobile solution is

designed from the ground up for maximum success, factoring in ease-of-use and user adoption rates as well as wireless connectivity requirements. Our post-deployment services minimize downtime, helping to keep your mobility solution running at peak performance every day of the year. And our management solutions bring a new level of simplicity to the management of mobility solutions, enabling you to easily stage, update, monitor and troubleshoot your mobile devices from a single centralized location.

For more information on how the VC5090 and Symbol LS3578 Bluetooth-enabled cordless scanner can improve your warehouse operations, please visit us on the web at [www.symbol.com/l3578](http://www.symbol.com/l3578), [www.symbol.com/vc5090](http://www.symbol.com/vc5090), or access our global contact directory at [www.symbol.com/contact](http://www.symbol.com/contact)



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