



# THE MT2000 SERIES:

## BRINGING WIRELESS FREEDOM AND A NEW LEVEL OF COMFORT AND PRODUCTIVITY TO THE WAREHOUSE

### MOTOROLA'S MT2000 SERIES BAR CODE SCANNER



#### KEY BENEFITS

- Streamlines operations and maximizes productivity in harsh warehouse environments
- Ultra-ergonomic design keeps workers comfortable and productive all shift long
- Enables the automation and virtual error-proofing of key warehouse functions like picking and put-away
- Offers rapid return on investment (ROI) — the same tool provides the functionality of two devices: a bar code scanner and a mobile computer
- Rugged construction delivers superior uptime and low cost of ownership
- Lowers the cost and complexity of mobile device deployments with an industry-standard platform and support for Motorola's Mobility Services Platform (MSP)

#### THE CHALLENGE: STREAMLINING INVENTORY MANAGEMENT IN THE WAREHOUSE

Every minute, raw materials and finished goods move in, out and through the warehouse. Regardless of whether you are shipping finished goods to retailers and end-users, or receiving and moving raw materials to replenish the production line, the effectiveness of this crucial center of business affects every aspect of the supply chain, overall business health and profitability. Anything less than peak efficiency results in longer cycle times and inventory inaccuracies — which in turn lead to production bottlenecks, delays in order fulfillment, real or false out-of-stocks, lost sales and reduced customer satisfaction.

Today you may be using manual paper processes in your warehouse — where workers need to reconcile incoming and outgoing shipments on paper forms, print out picking orders and manually enter data into your business systems. The resulting 'double touch' of data drains

productivity, creating costly lags in data visibility and opening the door to data inaccuracies. Alternatively, you may be using corded scanners that force workers to waste time carrying items back and forth to the scanner, or form factors that tend to fatigue users early in the workday, inviting errors and potentially reducing productivity levels.

#### THE SOLUTION: HIGH-PERFORMANCE, TRULY WIRELESS BAR CODE SCANNING

The MT2000 Series from Motorola provides the features and functionality required to address these issues in small to mid-size warehousing and manufacturing operations. Designed to improve productivity, efficiency and uptime in the warehouse, the high-performance MT2000 Series represents another industry first from Motorola — the marriage of the simplicity of a bar code scanner, the brainpower of a mobile computer and comprehensive anywhere, anytime wireless LAN connectivity — ensuring that your workers have the tools they need in hand to

streamline and error-proof virtually every key process, right at the point of work. And an award-winning well-balanced pistol-grip ergonomic design minimizes operator fatigue and provides the all-day comfort required to maximize operator productivity.

All the features for maximum warehouse efficiency:

- **Comprehensive data capture**

The MT2000 Series is capable of capturing whatever type of data is in use in your environment today and tomorrow — including 1D and 2D bar codes as well as direct part marks (DPM). This versatility brings true value to your warehouse operations — one device can handle your data capture needs today...or tomorrow.

- **Flexible deployment modes**

Comprehensive connectivity options — including wireless, cordless, corded and batch — provide the flexibility to seamlessly meet application requirements throughout the warehouse environment. Where a wireless LAN is installed or planned, the integrated 802.11a/b/g connectivity (MT2090 only) gives workers the freedom to use the device out on the receiving dock, in the warehouse aisles and more — no cords required — maximizing flexibility as well as improving employee safety. Both the MT2090 and the MT2070 support integrated Bluetooth®, providing a convenient, cord-free connection to a host computer in environments without a wireless LAN. And the ability to operate in real-time or batch mode increases application flexibility, bringing superior processing power and ergonomics to today's legacy applications, while providing a built-in upgrade path to take advantage of a future wireless LAN implementation.

- **Superior scanning technology**

When you choose Motorola, you choose industry-leading scanning technology. Your workers enjoy the first-time rapid and accurate capture of bar codes required to increase productivity. Choose from two scan engine options to best meet the data capture needs in your warehouse. The 1D laser scanner offers extraordinary range, enabling the capture of even damaged or poor quality bar codes from as close as one inch/2.54 cm to as far as 192 inches/12.7 cm away. For operations that either utilize 1D bar

codes today with future plans for 2D, or utilize both 1D and 2D symbologies today, the 2D imaging model decodes 1D and 2D bar codes in milliseconds, resetting the bar for imaging technology — eliminating the need to sacrifice scanning performance for 2D versatility.

- **All day comfort:**

Leveraging Motorola's expertise in industrial design, the MT2000 Series features an ultra-ergonomic forward-scanning pistol grip that balances easily in the hand, bringing all day comfort to workers who spend all day scanning.

- **Motorola's signature rugged design:**

The MT2000 Series is built for the tough warehouse environment, delivering reliable performance whether the device is dropped on the concrete floor of the warehouse or loading dock, or utilized outdoors in driving rain or snow, summer heat or extreme winter cold. In addition, IP54 sealing allows the device to operate dependably in dusty environments and survive the inevitable spills and frequent wipe downs.

- **Extensive application flexibility:**

The MT2000 Series integrates easily with your existing infrastructure and its industry standard Microsoft® .Net framework enables the rapid creation of new applications, so you can enjoy greater value without a hefty IT budget. Pre-loaded inventory applications deliver true out-of-the-box functionality. The MCL client software is also included on the device. When used in conjunction with the optional MCL Designer Software, the integrated MCL client allows existing applications developed for other Motorola mobile computers to be ported to the MT2000 Series in record time.

- **Native FIPS 140-2 certification:**

This certification provides government grade security for government agencies and businesses, right out of the box — no need to purchase and manage additional infrastructure. Now, you can comply quickly and cost-effectively with strict industry security regulations, including PCI in retail and HIPAA in healthcare.



The MT2000 Series marries the simplicity of a bar code scanner, the brainpower of a mobile computer and comprehensive wireless connectivity in a well-balanced pistol-grip ergonomic design. The MT2090 offers 802.11a/b/g wireless LAN connectivity for complete wireless freedom anywhere in your facility, and both the MT2090 and the MT2070 support Bluetooth®, providing a convenient cordless connection to a workstation as far as 300 ft./91.44 m away. Now, workers not only have the tools they need in hand to streamline and error-proof warehouse processes, they also enjoy all day scanning comfort. The resulting increase in productivity and accuracy delivers real value — improved throughput, customer service and customer satisfaction.



The MT2000 Series automates and error proofs end-to-end warehouse processes — from receiving, picking, replenishment and put-away to packing and shipping — while providing the ergonomics for all day comfort in this intensive scanning environment. A split second scan of a bar code allows workers on the receiving dock to rapidly process incoming shipments, decreasing dock-to-stock times. In replenishment, a quick scan ensures that the right products are selected and delivered to the production line, keeping the production line moving and preventing costly production errors. And in order fulfillment, the ability to scan during picking, packing and shipping activities ensures that the right products are selected and shipped to the right customer. The result is improved throughput in the warehouse, faster and more accurate order fulfillment — and increased customer satisfaction.

## **STREAMLINE PROCESSES THROUGHOUT THE WAREHOUSE**

The MT2000 Series brings new levels of throughput and accuracy across all warehouse operations — from receiving and replenishment to put-away, picking and shipping.

### **Picking**

The MT2000 Series heavily automates the picking process, allowing the same number of workers to not only pick more orders, but also more accurate orders. The need to print and distribute pick tickets is eliminated, along with the need to enter and reconcile data after the pick is complete. Pick orders can be delivered right to the MT2000 mobile terminal, complete with the product's location and fastest route. By scanning items as they are selected, workers receive instant verification that the right item was selected and can immediately correct a wrong pick. And since damaged labels are a common occurrence in the warehouse environment, the MT2000 Series employs advanced Motorola technology to decode even scuffed, poorly printed and dirty bar codes.

### **Replenishment**

With the MT2000 Series, workers have the tools to rapidly respond to line-side calls for product replenishment. Replenishment orders can be sent directly to the MT2000 device seconds after the request is made. Since a quick scan verifies the product prior to selection from your warehouse shelves, you can be sure the right product is delivered to the production line. The efficiency and accuracy of your replenishment processes is improved, providing protection against costly production line shutdowns and delays in order processing.

### **Receiving**

Real-time wireless connectivity at the dock door increases the velocity and the accuracy of the receiving function. A quick scan of a bar code instantly identifies incoming shipments. Shipments are automatically verified against the purchase order in seconds, and proper routing instructions are delivered right to the mobile terminal — instantly directing workers to properly stage accurate shipments for put-away and incorrect shipments for return to the shipper.

The real-time visibility also allows you to identify whether a shipment should be staged for priority handling — for example, an item that is low in stock or even presently out-of-stock. As a result, dock-to-stock delays are reduced and inventory is promptly available for shoppers, order fulfillment or production line replenishment. In addition, if a damaged shipment is received, the imaging capability of the MT2000 Series allows workers to snap a quick photograph of the damaged goods, providing proof of condition for the originating shipper.

### **Put-away**

Once shipments are staged for put-away, a quick scan displays the right storage destination for each item in the shipment, as well as the fastest route to that location. A second scan of the shelf-tag at the put-away location enables an additional crosscheck, verifying that the worker is about to place the right product on the right shelf. The result is a virtual errorfree put-away process, ensuring that materials are in the right location and ready to fill orders or replenish the production line, protecting customer satisfaction, production line uptime and yield.

### **Packing**

In the packing function, the MT2000 Series eliminates the need to manually check pick tickets. Now, workers can cross check the accuracy of an order by scanning the bar codes on the pick tickets as well as the actual products, providing automatic and rapid error-free validation that the right items were picked for the order. In addition, based on the items in the order, the proper carton size for each order can be automatically identified — eliminating the selection of a box that is too large and reducing the use of filler and packaging material — helping both the environment and your bottom line. The shipping box can even be scanned as it's selected, verifying that the correct size was selected, as well as enabling real-time inventory management of packing materials.

### **Shipping**

A quick scan of the bar code on an outgoing shipment helps ensure that the right items are being shipped to the right address and staged for the right truck — in the right order. Wireless connectivity enables instant printing of all required paperwork on either a printer connected to the wireless LAN or via a direct connection to a Bluetooth-enabled printer. The resulting efficiency allows the same number of workers to ship more orders in a day — reducing bottlenecks and improving delivery times. The new accuracy gains virtually eliminate costly shipping errors that reduce truck utilization and threaten customer satisfaction and retention. And the ability to easily stage shipments inside the trucks in an order that corresponds with the delivery route extends the benefits of the MT2000 Series beyond the warehouse, improving the efficiency of the delivery drivers out in the field.

## **BENEFITS IN THE WAREHOUSE... AND BEYOND**

The power of automation and real-time data in the warehouse minimizes the time spent on every task, while providing crosschecks for accuracy at every step along the way. But the value of a warehouse mobility solution extends far beyond the loading docks, warehouse aisles and shelves. The realtime inventory visibility delivers benefits that ripple throughout the enterprise, including: A reduction in inventory levels, reducing capital requirements and inventory carry costs

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- The reduction in warehouse space requirements due to the reduction in inventory stocking levels, freeing warehouse space for other areas of the business — for example, an expansion of the production line to increase manufacturing capacity
- A reduction in out-of-stocks — potentially delivering an increase of 15 percent or greater in sales
- A reduction in transportation costs as a result of tighter scheduling, optimal load order and a reduction in shipping errors



## ENJOY A RAPID RETURN ON INVESTMENT (ROI) WITH THIS MULTI-FUNCTION HYBRID DEVICE

With the MT2000 Series, you can count on the exceptional ROI and total cost of ownership (TCO) you need to easily justify this mobility solution. The multi-function MT2000 Series improves efficiency throughout warehouse operations, eliminating the need to purchase separate bar code scanners and mobile computers. In addition, Motorola's signature rugged design delivers maximum uptime and device lifecycle. Compatibility with Motorola's Mobility Services Platform (MSP) substantially reduces one

of the largest costs associated with any mobility solution — day-to-day management. MSP enables centralized and remote staging, provisioning and day-to-day monitoring of all your MT2000 Series devices, regardless of where in the world they are located. And since even the most rugged devices need a support plan, Motorola offers Service from the Start with Comprehensive Coverage. This unique offering sets the standard for post-deployment support by including normal wear and tear as well as accidental damage to internal and external components — protecting device uptime while significantly reducing your unforeseen repair expenses.

For more information on how Motorola's MT2000 Series can improve your warehouse operations, please visit us on the web at [www.motorola.com/mt2000](http://www.motorola.com/mt2000) or contact us at [www.motorola.com/enterprisemobility/contactus](http://www.motorola.com/enterprisemobility/contactus)

## CHOOSE MOTOROLA FOR YOUR END-TO-END WAREHOUSE MOBILITY NEEDS

When you choose Motorola for your warehouse mobility solution, you choose the strength of an industry leader — and the power of tested and proven end-to-end solutions. Motorola offers virtually everything you need to deploy a warehouse mobility solution that offers the reliability, security, manageability and superior uptime that your mission-critical applications demand.

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 indoor/outdoor WLAN portfolio offers a robust wireless connection, regardless of the size of your facilities or physical challenges in your environment — such as the presence of metal as well as fixtures and other equipment that can create RF blind spots, or the need to provide coverage in outdoor areas, such as the loading dock or yard. Our wireless broadband portfolio enables cost-effective networking for distributed locations. Our comprehensive RFID solutions include fixed, mobile and handheld RFID readers. 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. Robust management solutions provide centralized control of your entire mobility solution — from your mobile devices and the applications and data resident on those devices to your wireless LAN and wireless broadband infrastructure. And when you choose one of Motorola's Service from the Start programs, you'll enjoy multiple years of repair coverage with protection that begins from the date of purchase, protecting uptime and your return on investment.

**APPLICATION BRIEF**  
MT2000

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