BOOST EFFICIENCY IN YOUR WAREHOUSE WITH THE WORLD'S MOST POPULAR INDUSTRIAL MOBILE COMPUTING SERIES

MC9200/MC9190-G



The challenge: warehouse inefficiencies increase the cost of doing business and decrease customer satisfaction

The warehouse is at the heart of your manufacturing and distribution operations. Every minute of every day, materials are constantly moving in, out and through this crucial business hub. The effectiveness of your warehouse operations affects every aspect of your supply chain, business health and profitability. But the demands of a multi-channel world are creating a major increase in volume — and customers want orders delivered faster than ever before. Yet your paper-based processes or older mobile computing technology are increasing cycle times, errors and labor costs, preventing you from achieving peak operational efficiency, increasing the cost of doing business and reducing customer satisfaction and retention.

The solution: achieve maximum efficiency in your warehouse with next generation mobile computing

When it comes to automating your warehouse, you can count on the latest generations in Zebra's highly successful rugged MC9000 Series — the Symbol MC9190-G and Symbol MC9200 — to automate your paper-based processes or take your current warehouse automation to the next level. Paper processes are replaced with real-time on-demand information that allows workers to execute tasks with the utmost efficiency and accuracy — from receiving and replenishment to put-away, picking, packing, and shipping. And if you are already using a prior generation of the MC9000 Series or another manufacturer's older mobile computer, you can achieve significant efficiency gains with today's advanced mobile computing technology. With greater processing power,

support for 802.11n and scanning options that let your workers capture virtually any type of bar code in practically any condition, up close or far out on the top pallet, your employees will be able to process more work orders, improving throughput, turnaround times and customer satisfaction.

The MC9190-G/MC9200: get more done in less time with these warehouse workhorses

These two handheld mobile devices offer everything you need to maximize efficiency and accuracy in your warehouse — including a well-proven rugged design built for the demanding warehouse environment; the power you need to run today's applications; government-grade security; the most scanning options; better battery management; push-to-talk voice and much more.

INDUSTRY LEADING PROVEN RUGGED DESIGN FOR SUPERIOR RELIABILITY

The MC9000 Series is not only one of the most proven rugged devices on the market, it is also the best selling rugged mobile computer. There are nearly two million units in use in some of the world's most inhospitable environments, delivering unsurpassed reliability every day. And the MC9190-G/MC9200 mobile computers include new features that take the rugged design of this series to a new level. Features include:

- **An integrated one-piece gun handle.** Unlike competitive models with a snap-on handle, the handle is part of the housing, greatly increasing durability.
- **A more durable battery design.** A flat battery connector replaces the traditional 'thin-pin' male/female pin-style battery connectors, where one broken connector pin renders the unit inoperable. The corrosion proof connector is part of the battery, so when you replace the battery, you get a new connector, reducing the effect of wear-and-tear on the overall lifecycle of the unit.
- **Torque Cell construction.** Traditional mobile computer housings are a clamshell design — two pieces of plastic that are held together with screws at points on the housing known as 'bosses'. When the device is dropped, the majority of the force is concentrated on the bosses. Instead, we use Torque Cell housing to eliminate bosses and improve the distribution of shock. Bosses and screws are replaced with a series of 28 hooks and locks that slide together. The force of a drop is dispersed among these 28 areas, eliminating a concentration of twisting and flexing in any one spot.
- **Tuned external bumpers.** We utilize materials in our bumpers that significantly reduce the effects of shock during a drop. In tests, the sensitive electronics inside the device moved less than 6/1000 of an inch, roughly 40 times less than the 1/4 in. movement common in traditional clamshell style housings.
- **Insert molding.** The ability to add parts during the molding of the plastic housing improves the quality and durability of the sealing, ensuring that neither moisture nor dust will enter the device.
- **Internal magnesium frame.** The circuit board and other sensitive electronics are anchored to a free floating electronic assembly instead of the housing, providing better shock absorption during a drop.
- **Touchscreen design.** Two features improve touch-screen durability in the MC9200/MC9190-G. First, an air gap now separates the touchscreen from the display. In addition, the hardness of the touchscreen has been increased, so it is even more resistant to wear and tear. Where the typical resistive touch panel is rated to a hardness factor of 3H, a polycarbonate display boosts hardness to 4H.
- **Ultra strong Gorilla® glass scanner exit window.** Since bar code scanning is one of the most important features in a handheld mobile computer, we upgraded the scanner exit window with incredibly tough Corning® Gorilla® glass, which is virtually scratchproof and shatterproof.
- **The industry's best-in-class endurance specification.** These devices continue to operate reliably, even after 2,000 3.28 ft./1 m turns in Zebra's tumble drum — the equivalent of 4,000 hits.

- **The industry's toughest drop test.** At first glance, the drop specification for the MC9200/MC9190-G appears to be on par with its competitors — 6 ft./1.8 m MIL-STD 810G. But all drop tests are not conducted the same way. To meet our goal of building one of the most rugged devices on the market, we increased the test criteria to exceed the standards, where many competitive devices simply meet the standards.

Zebra drop test criteria details

TESTING CRITERIA	ZEBRA MIL-STD 810G 516.5+	STANDARD MIL-STD 810G 516.5
Device operating status	Unit must be powered on	Unit is powered off
Drop surface	Concrete	Plywood over concrete
Temperature	Across the entire operating temperature range	Room temperature (73.4° - 77° F/ 23° - 25° C)
Number of drops	36	26
Fail criteria	During testing with unit powered on, device must not: • Lose a network connection • Reboot • Lose data	Unit must power up after test is complete

PROTECT YOUR DATA WITH GOVERNMENT-GRADE SECURITY

You can count on the MC9200/MC9190-G to keep your data safe — the devices meet the security requirements of some of the most demanding federal government agencies. This robust set of tools brings wired-line security to data that is resident on these mobile computers, as well as data that is in transmission between your mobile computers and your wired network. And unlike many other mobile devices, our security features do not impact performance, protecting your data and your productivity. Features include:

- Native FIPS 140-2 Level 1 validated, right out of the box — no additional 3rd party software to purchase, manage or maintain
- Support for the most advanced encryption and authentication algorithms including:
  - WLAN Security
  - WPA2 Enterprise, 802.1x; EAP-TLS; TTLS (CHAP, MS-CHAP, MS-CHAPv2, PAP or MD5)
  - PEAP (TLS, MSCHAPv2, EAP-GTC); LEAP
  - EAP-FAST (TLS, MS-CHAPv2, EAP-GTC)
  - WPA2/AES, CCX v4, FIPS 140-2 and IPv6
- Compatibility with Zebra's Mobile Security Suite, which provides numerous tools that allow you to add additional layers of security. You can install:
  - the same best-in-class features you use on your wireless networks on your MC9200/MC9190-G mobile devices — including a device level firewall, intrusion prevention, enforced authentication and integrity monitoring
  - our certified Virtual Private Networks (VPNs), which make all your wireless communications as secure as possible

With Zebra's mobile device management solutions, IT can simply press a button to deploy these additional layers of security in seconds, eliminating the time consuming hands-on loading of software and manual configuration of settings.

PUSH-TO-TALK VOICE FUNCTIONALITY

We give you powerful voice features that allow workers to use the MC9200 and MC9190-G as a walkie-talkie. Simply install the complimentary Push-to-Talk Express client software to enable push-to-talk instant communications with other Zebra Push-to-Talk Express-enabled devices, right out of the box. Add Zebra's Radio Link Server (RLS) to enable push-to-talk communications between the MC9200/MC9190-G and Zebra two-way radios.

The result? You can connect your warehouse workers to more people inside the enterprise walls — including co-workers and supervisors as well as associates in other departments. Issues can be resolved on the spot — no need to hunt for a phone. And supervisors can reach a specific person or their entire team with the press of a button, able to re-deploy labor and assets quickly and easily throughout the day.

THE MC9200/9190-G

The very latest in scanning technology... and more scanning options

With the very latest in scanning technology, no matter what type of bar codes you need to scan, whether they are near or far, or damaged or dirty, you can count on the dependable first time split second scanning that has made Zebra the clear leader in the bar code industry. Scan engine options include:



IMAGERS

Four imager options all offer Zebra's revolutionary imaging technology, with stunning laser-like performance on both 1D and 2D bar codes. Document, image and signature capture provides superior application flexibility. And the ability to easily capture bar codes that are under shrinkwrap makes our imagers ideal in the warehouse.

SE4600 Extended Range Imager

Our groundbreaking long-range imager enables omnidirectional scanning of any 1D or 2D bar code, near or far, in any lighting — including bright sunlight out in the yard or loading dock. Its dual focus technology keeps the scanner in focus and ready to scan regardless of distance, so users can capture a low density shelf tag on the upper shelves of your warehouse rack as far as 30 ft. (9.14 m) away, followed by a medium density item code at near contact — as close as 8 in. (20.32 cm) — no special label stock required.

SE4500-SR Standard Range Imager

This general purpose 2D imager offers patent-pending fast-pulse illumination and a fast sensor shutter speed that can capture 60 frames per second for extraordinary scanning speed. Exceptional motion tolerance boosts worker productivity — there is no need to wait between scans. And omnidirectional scanning means point and shoot simplicity — there is never a need to align scanner and bar code. This standard range model is designed for intensive scanning of medium to large bar codes.

SE4500-HD Imager

The SE4500-HD builds on the SE4500-SR, adding support for very high density bar codes, including virtually any direct part mark (DPM) — dot peen, laser etch, ink mark, chemical etch, inkjet mold, cast and thermal spray. This scan engine is ideal in the automotive and aerospace industries, where government safety regulations require manufacturers to track the whereabouts and history of every part.

SE4500-DL Imager

The SE4500-DL also builds on the SE4500-SR, but is tailored to capture medium to high density bar codes as well as the bar codes found on driver's licenses and other identification documents. The SE4500-DL is ideal for scanning identification documents at border crossings as well as the tiny bar codes common in the healthcare and electronics industry.

LASERS

If you only need to scan 1D bar codes, our laser scanners offer the first time every time scanning performance you need to keep your business moving and workers productive. You can even scan the scratched, dirty and poorly printed codes common in indoor and outdoor warehouse environments.

SE960/SE965 1D Laser

Patented Adaptive Scanning technology gives these 1D scan engines a best-in-class scanning range — from near contact to as far as 15 ft./4.5 m. The patented Liquid Polymer scan engine is frictionless and will not wear out. And the patented die cast chassis offers the industry's best rating for reliability, offering dependable operation even after a 2,000G shock.

SE1524-ER Extended Range 1D Laser

When you need to capture bar codes at long distances, the SE1524-ER is ready for the job. Fuzzy logic ensures accurate capture of even poorly printed and low contrast bar codes across the entire read range — from near contact to as far as 45 ft./13.71 m away. And the 650 nanometer laser diode generates a bright, highly visible scan line, making it easy to accurately aim at codes on the uppermost shelves of your racks.

Plenty of processing power to support any application

Whether your workers need to run multiple complex ERP applications at the same time or whether you want to improve the performance of your TE applications, you can count on superior application performance. The MC9190-G offers an 806 MHz processor with 256MB RAM/1GB Flash, and for your most demanding applications, the MC9200 offers a blazing dual core 1GHz processor with up to 1GB RAM/2GB Flash.

Easier to see and easier to use

Lighting often varies throughout the warehouse — some areas may be brightly lit while others may be dim. To address the full range of lighting conditions the QVGA display has been upgraded to a full color best-in-class VGA touchscreen, complete with backlighting. The new display is easy to read regardless of whether users are in bright sunlight or total darkness. In addition, the touchscreen gives you the flexibility to simplify application interaction, allowing employees to 'swipe-and-go' instead of type.

Improve accountability

Zebra MAX Sensor automatically logs the date, time and duration of any 4 ft./1.2 m or greater drop. If workers are required to scan their own badges at the start of a shift, you know which employee used which device, improving accountability — and incenting employees to take good care of these high-value mobile computers.

Better battery management

Make sure your workers are never caught without battery power during a shift with Zebra's Interactive Sensor Technology (IST). Simply set the maximum amount of time the device can remain idle. Then this business class accelerometer takes over, automatically placing the device in a power-saving mode when the MC9200 or MC9190-G is either placed face down on a surface or when the 'idle' threshold' is reached. And when workers pick the device up, the device returns to the same state it was in prior to powering down, preserving productivity. Your workers can pick up right where they left off — even if they were in the middle of entering data on an electronic form.

Improve device accountability with effortless real-time tracking

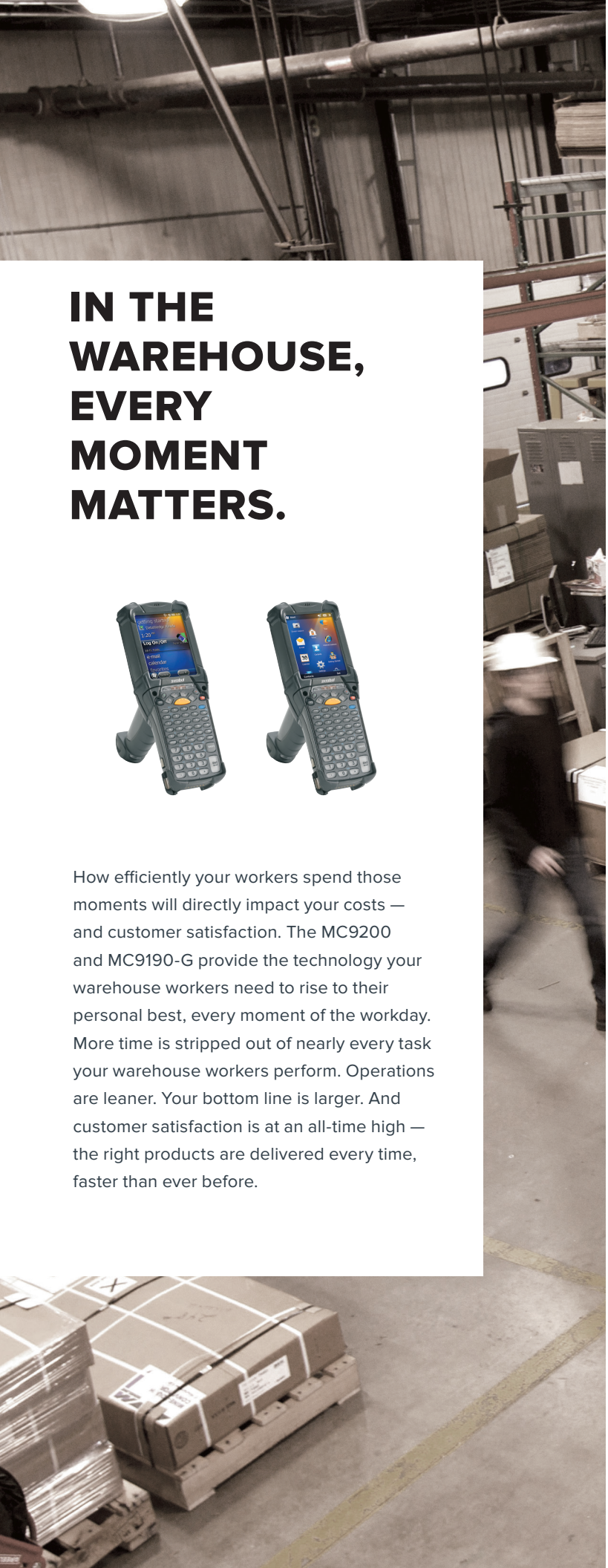
A quick scan of the integrated RFID tag during device check-in and check-out allows you to automatically track which employee has which device, improving accountability for device care during a shift and return of devices at the end of a shift. In addition, RFID readers at entry and exit points can help prevent device theft. Any device that passes the RFID reader could trigger an immediate alert, notifying you that a device is leaving the property — and which employee is responsible for that particular device.

Fast and dependable Wi-Fi wireless connections (a/b/g/n)

Your workers need a wireless voice and data connection that is every bit as reliable as a wired connection. When our MC9200/MC9190-G mobile computers are connected to a Zebra wireless LAN (WLAN), they deliver. The technology in our mobile computers and wireless LAN infrastructure is designed to work hand-in-hand to create wireless connections your workers can depend on, no matter where they roam within your coverage area. The new antenna helps create highly efficient connections that maximize WLAN bandwidth as well as the processing power in in the MC9190-G, the MC9200 and all the other Zebra mobile devices that are connected to your WLAN. [Note: MC9200 offers 802.11a/b/g/n, the MC9190-G offers 802.11a/b/g.]

No-fault warranty — everything is covered. Period.

With Zebra's industry leading Service from the Start with Comprehensive Coverage, you get end-to-end support, starting the moment these mobile computers arrive — no questions asked. Regardless of whether a user has accidentally damaged the device or the issue is simply the normal wear-and-tear that occurs over time, it's covered. Not only is the device itself covered, but so are the select accessories that ship with the device, including the stylus, screen protector, hand strap, battery door and more. You can choose your turnaround time — from three-day to overnight replacement. With full access to technical support resources by phone and email, your IT staff can get the help they need, when they need it. And with the rights to download new software releases, with a few clicks, you can keep the firmware on your mobile computers up to date throughout the term of your service contract.



IN THE WAREHOUSE, EVERY MOMENT MATTERS.

How efficiently your workers spend those moments will directly impact your costs — and customer satisfaction. The MC9200 and MC9190-G provide the technology your warehouse workers need to rise to their personal best, every moment of the workday. More time is stripped out of nearly every task your warehouse workers perform. Operations are leaner. Your bottom line is larger. And customer satisfaction is at an all-time high — the right products are delivered every time, faster than ever before.

Get a rapid return on investment...

Regardless of whether you are deploying mobile computers for the first time or upgrading older mobile computers to the MC9200 or MC9190-G, you'll empower your warehouse and your workers with all the benefits of the latest in mobile computing technology. You'll strip more time out of your everyday tasks, allowing your operations to become leaner — and your bottom line larger. Our platform strategy minimizes your out-of-pocket costs. If you are upgrading from an older MC9000 Series mobile device, you can use the same accessories and applications you use today. And since you can choose a scan engine that will allow you to scan the bar codes of today and tomorrow, you get a future proof device that can serve your business every moment of its useful life.

A low total cost of ownership...

While the MC9200/MC9190-G is built to last for years, Zebra's Service from the Start with Comprehensive Coverage will keep your devices up, running and in the hands of your users. This unique all-inclusive support plan covers accidental damage as well as everyday wear and tear. The result? Maximum device lifecycle. Maximum uptime. And a low total cost of ownership.

...and benefits that reach beyond the warehouse

The MC9200/MC9190-G mobile computers are a highly strategic investment that not only delivers quantifiable benefits in the warehouse — but also high-level business benefits that deliver real competitive advantage. Task automation and the availability of real-time information throughout the warehouse minimize time spent on every task, while providing crosschecks for accuracy at every step along the way. But the business benefits don't stop at the walls of your warehouse — they ripple throughout your operation, allowing you to:

- Reduce inventory levels, which in turn reduces capital requirements and inventory carrying costs
- Reduce warehouse space requirements, freeing space for other business initiatives — for example, an expansion of your production line
- Reduce out-of-stocks — delivering a potential increase of 15 percent or greater in sales
- Reduce transportation costs through tighter scheduling, optimal load order and fewer shipping errors
- Reduce technology costs — one device can handle all your scanning needs, eliminating the need to purchase and manage multiple models to capture different types of bar codes at different distances



MAXIMIZE EFFICIENCY IN YOUR WAREHOUSE WITH THE MC9200/MC9190-G MOBILE COMPUTERS

AND GET MORE...

MORE THROUGHPUT.

MORE ACCURACY.

MORE SATISFIED CUSTOMERS.

For more information, visit
www.zebra.com/mc9200

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or access our global contact directory at
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