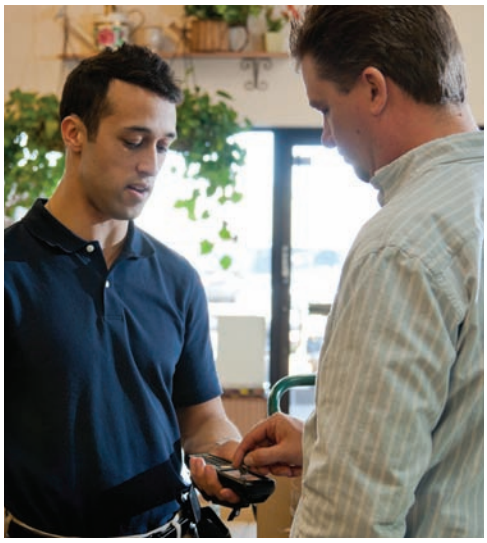
STREAMLINE YOUR SMALL TO MID-SIZE MANUFACTURING OPERATIONS WITH THE FLEXIBLE, MULTI-FUNCTION MC2100 MOBILE COMPUTER

THE MC2100 IN MANUFACTURING



The MC2100 allows you to affordably automate your manufacturing operations — from receiving to delivery to the customer's doorstep. The result? Faster delivery times. Accurate orders. And more satisfied, loyal customers.

THE CHALLENGE:
MANUAL ERROR-PRONE PROCESSES IMPACT PRODUCTIVITY, CUSTOMER SERVICE, PROFITABILITY — AND YOUR ABILITY TO COMPETE

If you are a small to mid-size manufacturer using paper to capture and move the information required to produce and deliver products to your customers, you are inadvertently inserting time and the opportunity for errors into your business processes. Paper-based processes put the brakes on the possible speed that information can move through your organization. First the information is handwritten, then translated and finally entered into a computer, where it finally becomes visible. Erroneous information can enter your system from three different sources: workers who inadvertently write down the wrong information, illegible handwriting that is transcribed improperly and typing mistakes. These errors ripple all the way through your manufacturing operations to your customer.

As a result, employee productivity, product quality, product volumes, order accuracy, service quality and delivery times can all be negatively impacted, threatening customer service and one of the most important assets in your business — customer loyalty.

While automating your business processes could address these issues, as a small manufacturer, you may have thought that automation was too complex or too costly to implement but not any more.

THE SOLUTION:
AUTOMATE AND ERROR-PROOF YOUR PROCESSES AND SHARE INFORMATION IN REAL-TIME WITH THE MC2100

The MC2100 changes the game for small to mid-size manufacturers like yours. It's designed to enable you to create standardized electronic processes that eliminate the time lags and inaccuracies that come with paper-based systems.

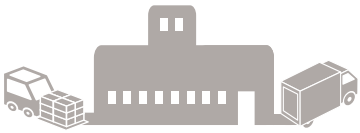
WHY IS THE MC2100 THE RIGHT CHOICE FOR YOUR BUSINESS?

WITH THE MC2100 INTEGRATED INTO YOUR MANUFACTURING OPERATION YOU'LL HAVE...

THE TOOLS YOU NEED TO AUTOMATE ONE — OR ALL — OF YOUR PROCESSES

The MC2100 is designed to match the needs of your operation — from receipt of raw materials to delivery to your customer. You get easy point-and-shoot first-time every time scanning of any 1D or 2D bar code — operators never need to align bar code and scanner. With the ability to scan both 1D and 2D codes, your investment is future-proofed — you'll even be ready to scan the new GS1 bar codes designed to streamline entire supply chains.

Your workers will have everything they need, no matter what job they are performing. And you can automate your processes at whatever pace is comfortable for you and your workers.



THE FLEXIBILITY OF A DEVICE BUILT TO PERFORM IN ALMOST ANY ENVIRONMENT — WITHOUT BREAKING YOUR BUDGET

The MC2100 is built for the end-to-end manufacturing environment. It is at home on the plant floor, in a warehouse aisle, out on the dock in the rain and snow, bringing real-time information to your workers over your wireless LAN. It is equally at home in your delivery and service trucks out on the road, where it continues to provide value, even in off-line mode. The information users need is loaded onto the device in the morning, electronic forms and bar code scanning eliminate paperwork in the field and when drivers return to the office and connect to your wireless LAN, the information is automatically uploaded into your business systems — no paperwork and no data entry required.

You also get investment protection. While the MC2100 allows you to affordably begin to mobilize your business, it easily integrates with Motorola's complete manufacturing mobile computing portfolio. You can add different devices to support different tasks down the road — from vehicle-mount mobile computers for your forklifts, to wearable mobile computers that leave hands free in picking intensive applications.

A DEVICE YOUR EMPLOYEES WILL WANT TO USE — HALF THE BATTLE OF ANY PROCESS CHANGE IS GETTING YOUR EMPLOYEES TO EMBRACE IT

And with the MC2100 in hand, they will. The applications that you can deploy will make it easier to do their jobs — and Motorola Solutions' award-winning Industrial Design team built the MC2100 for all day comfort and ease of use. At roughly 8.5 oz/240.7 g, the well-balanced device is wonderfully light in the hand. Keys are sized and placed for easy one-handed operation, and a finger perch on the back allows users to get a secure grip with one hand. And a touchscreen option makes it very easy to navigate through applications.

APPLICATIONS: A TOTAL SOLUTION FOR END-TO-END MANUFACTURING

With the versatile MC2100, you have a multi-purpose tool that can automate any one or all of your business processes, offering a solid investment that can serve your business for many years. The flexible MC2100 allows a single worker to access multiple applications and perform a variety of functions throughout the day — from receiving to shipping.

RECEIVING

At the receiving dock, a quick scan of the bar code on a shipment or entry of the order number on the bill of lading allows workers to automatically reconcile incoming materials with the original order. No more walking to the computer to look up the order, print out the details of the order and take the printout to the order site to manually confirm the right materials are in the shipment — so you can ensure that the shipment is complete.

Benefits:

- Reduces cycle times and errors
- Ensures inventory is available immediately to fulfill orders and support production line requirements.

PUT-AWAY

Once a shipment has been received, an electronic put-away order can be generated and sent to workers in the warehouse. The work order can contain more information than ever before — information that improves productivity and accuracy. Now, you can give workers the exact location where the materials should be stored as well as the fastest path to the put-away location. When workers arrive, another split-second scan of the shelf tag on the warehouse rack provides a valuable double check that the right item is about to be placed in the right area. No more opportunities for misplaced inventory that could lead to a line shutdown — a very costly event.

Benefits:

- Reduces cycle times and errors
- Increases workforce productivity
- Reduces costs associated with lost or missing inventory

REPLENISHMENT

Mobile computers can error proof and streamline the replenishment process, keeping the production line up and running as well as ensuring that the right items are in use at all times. On the production line, a worker presses the eKanban button to send an electronic request for materials replenishment to a worker in the warehouse. Before the materials are selected from the warehouse shelves, the worker scans the bar code on the item, validating that the right materials are selected. Another scan on the production line bin verifies that the materials are being delivered to the right area of the production line.

Benefits:

- Speeds material flow, reduces errors
- Protects product quality
- Reduces production downtime or lags to protect yield

PICKING

When workers can scan items as they are picked from your warehouse shelves, you can be certain that orders contain all the right items — and only the right items. As you speed the order-fulfillment process and improve order accuracy, customer satisfaction improves. And items that were not ordered can be detected and removed before the order is shipped, protecting profitability.

Benefits:

- Increased productivity — the same staff can process more orders in a day
- Reduces order errors and returns
- Improves customer satisfaction

AUTOMATE AND ERROR-PROOF YOUR MANUFACTURING OPERATIONS WITH THE FLEXIBLE MOBILE COMPUTER THAT DELIVERS THE RUGGED DESIGN AND THE FEATURES YOU NEED, WITHOUT BREAKING YOUR BUDGET — THE MOTOROLA MC2100

QUALITY

With a mobile computer in hand, workers can easily uphold quality standards throughout the manufacturing process. On the production line, bar code scanning validates process or assembly steps. Electronic quality forms enable real-time inspections that utilize up-to-the-second information. Quality inspection results are instantly visible in your business systems, ensuring the timely quarantine of any suspect materials to prevent substandard or tainted goods from reaching the hands of your customers.

Benefits:

- Provides better control over the quality of your goods
- Prevents costly reworks
- Protects consumer safety and customer satisfaction

TRACK AND TRACE

Food and beverage, automotive, aerospace and other types of manufacturers — where consumer safety is paramount — are subject to government requirements to support traceability for faster and more efficient recalls. Now, workers can scan the bar code on raw materials or components and capture critical information such as serial number or vendor as products are assembled or processed into finished goods, allowing you to easily create an "as-built" or "e-pedigree" for every product. The result? You can cost-effectively comply with internal and regulatory track and trace requirements. In the event a product recall is necessary, you can easily locate items that contain a specific item anywhere in your supply chain. The narrowed scope, enabled through automation, minimizes the financial impact of the recall, as well as the impact on your brand.

Benefits:

- Reduces financial risk
- Improves consumer safety
- Enables cost-efficient regulatory compliance
- Enables vendor/supplier accountability

PLANT COMMUNICATIONS

When you deploy the MC2100 in your manufacturing operations you gain an additional benefit — low-cost anywhere, anytime voice communications throughout your facility. Since Motorola's Push-to-Talk (PTT) Express software is already loaded onto the MC2100, workers can use the MC2100 for push-to-talk communications right out of the box. Now, they can instantly reach co-workers and supervisors, regardless of whether they are carrying an MC2100 or other Push-to-Talk Express-enabled devices — including other Motorola mobile computers, Motorola two-way radios and some of today's most popular smartphones. The result? You can have a variety of mobile devices in your operations, yet they can all communicate at the press of button. And since the PTT services utilize your wireless LAN, you can eliminate legacy paging systems or cellular monthly fees for push-to-talk services.

Benefits:

- Reduces the cost of voice communications
- Improves collaboration throughout your entire operation

PACKING

When workers scan items as they are packed, you get a valuable double-check of order accuracy. In addition, your business application can calculate which packing materials should be used based on the items in the order. The use of the right size carton eliminates wasted packing material. And the use of the right packing materials best protects the items in the order.

Benefits:

- Reduces order errors and returns
- Protects customer satisfaction levels
- Reduces shipping material costs

SHIPPING

Once the order is packed, the bar code on the packing list is scanned, automatically generating the right shipping label, ensuring that the shipment is properly addressed and prepared for shipment via the right level of service. As a result, shipments always reach the right destination, on time.

Benefits:

- Reduces shipping errors
- Speeds the shipping process
- Increases customer satisfaction through improved order accuracy and timely delivery

DELIVERY OPERATIONS

Do your operations include delivery? With the MC2100 in hand, your drivers are equipped to quickly and easily perform a multitude of tasks. At the start of the day, they can scan the inventory in the back of the truck and ensure all orders are on board. On arrival at each stop, they can scan the items as they are pulled out of the truck for delivery to ensure the order is accurate and complete and in addition support last-mile traceability. The store manager can sign for the delivery, right on the MC2100, capturing proof-of-delivery which is uploaded into the billing system when drivers return at the end of the day. As a result, invoicing is faster — which in turn decreases the order-to-cash cycle time to improve your cash flow.

When drivers return to the office, information can be automatically uploaded to the inventory system to provide route reconciliation data as well as an accurate near real-time accounting of available inventory — all without paper.

If your delivery drivers also take orders at the customer site, more rapid and accurate visibility into the order pipeline helps improve forecasting and management of production schedules to ensure your ability to produce the right amount of product at the right time.

Bar code scanning also greatly simplifies returns processing. Drivers can simply scan products that are being returned to present the customer with an electronic return order to review, and capture the customer's signature to verify the accuracy of the return. And if you also give your drivers a compact mobile printer, drivers can print out a return receipt — as well as an order — to give to your customers, right on the spot.

Benefits:

- Increased driver productivity — the same number of drivers and trucks can make more deliveries per day
- Elimination of erroneous shipments
- Reduced days sales outstanding (DSO)
- Improved visibility into inventory requirements reduces out-of-stocks
- Supports last-mile traceability

For more information on how the MC2100 can help you improve productivity, task accuracy and customer service quality in your manufacturing operations, visit www.motorolasolutions.com/mc2100 or access our global directory at www.motorolasolutions.com/contactus

THE MC2100

DESIGNED FOR THE SMALL TO MID-SIZE MANUFACTURER

Why is the MC2100 ideal for your small to mid-size manufacturing operation? It has all the features you need today and tomorrow, all in a rugged device built for all day every day use inside and outside of your business:

RUGGED DESIGN

The MC2100 is designed for the demanding manufacturing environment. It is sealed, so you can use it around dust, spill water on it and more. It is double-tested for impact endurance, performing reliably after multiple 4 ft./1.2 m drops to concrete — and 1,000 consecutive hits in a rotating "tumble" drum. In addition, one of the most vulnerable areas, the scanner exit window, is made of Corning® Gorilla® Glass, which is practically impervious to damage.

SUPERIOR ERGONOMICS FOR EASE OF USE

Our award winning Industrial Design team created the MC2100 for all day comfortable one-handed use. It feels surprisingly light in hand for a device of its size. With its unique finger perch, the MC2100 gives workers a secure hold without requiring a constant grip. And a touchscreen, ten programmable keys and the ability to add a custom overlay on the blue menu layer of the numerical keypad make it easier than ever for your workers to use your applications.

POWERFUL SCANNING PERFORMANCE ON EVERY BAR CODE IN YOUR FACILITY

The MC2100 offers more choices than any other device in its class — a 1D linear imager, a 1D laser or a 1D/2D area imager — and all three scan engines can capture damaged, dirty and scuffed bar codes on the first scan.

FLEXIBLE CONNECTIVITY OPTIONS FOR DIFFERENT TYPES OF WORKERS

Bluetooth-enabled wireless models that connect to any 802.11b/g/n wireless LAN give workers inside your four walls a real-time connection to your key business applications — and to their Bluetooth-enabled wireless peripheral, such as a headset for PTT or voice picking. And our batch mode devices are ideal for workers who spend their day out in the field. These workers can simply cradle the device at the start of the day to obtain needed data (for example, your inventory and orders database or a delivery manifest) and again at the end of the day when they return to the office to automatically upload collected data into your business systems.

REAL BUSINESS-CLASS PUSH-TO-TALK VOICE COMMUNICATIONS

Since our Push-to-Talk Express software is already installed on the MC2100, you can enable group broadcast and private response PTT the day your device arrives. This device agnostic client software allows you to easily enable voice communications between users with different types of devices that operate on different types of networks — including third party smartphones and Motorola two-way radios.

DESKTOP STYLE APPLICATION PERFORMANCE

Let's face it — if you want your workers to use a mobile device, it is going to have to provide the same application performance they experience on their desktop computers. And with the fastest processor and best memory combination in its class, the MC2100 delivers just that.

EASILY MANAGE ALL YOUR MC2100 DEVICES, NO MATTER WHERE THEY ARE.

While mobility sounds like just what your operations need, can your IT team handle device provisioning and deployment? With Motorola's Mobile Device Management solutions they can load all the software and settings required to use the device to updating software on the device, monitor devices for brewing issues, and identify and resolve device issues — all remotely.

ONE DEVICE SIMPLICITY — AND A LOWER CASH OUTLAY

Give your workers just one device for everything — scanning bar codes and capturing photos and electronic signatures to walkie-talkie style calls with almost any device (easy to reach supervisors and co-workers). Your users' work lives are simpler — they have only one device and one set of accessories to manage. And since the MC2100 is the equivalent of a mobile computer, scanner and two-way radio, you can count on big savings on device costs.

MOTOROLA SOLUTIONS
AN INDUSTRY-LEADING PARTNER TO HELP YOU GROW YOUR BUSINESS TODAY AND TOMORROW

As an industry leader enterprise mobility solutions, we have helped enterprises of all sizes utilize best-in-class mobile technology to streamline operations, improve customer satisfaction and increase sales. We truly understand your business and can recommend and help implement best practices that will give you the competitive advantage you need to make your business more successful. We are a true one-stop shop, offering a complete mobile solution portfolio that puts the tools your workers need to get the job done fast and right, in the palm of their hands. No matter what your need, we can deliver — from mobile computers and bar code scanners to RFID, wireless LAN infrastructure, mobile voice, and management solutions for devices as well as wireless LAN infrastructure. And our extensive service offerings help you get and keep your mobility solution up and running at peak performance.

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