MobileCollect Selection Tool

User's Guide



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1 Introduction

There are hundreds of gages that are supported by MobileCollect. With the MobileCollect Selection Tool you can quickly determine the gage cable and Mobile Module required for your gage. All you need is the gage manufacturer and the gage model number (gage code for Mitutoyo).

When you configure a MobileCollect wireless system, you can specify the following:

- Gage cables for connecting your gages to Mobile Modules.
- Type of Mobile Module (Mini, Digital or RS-232) required for each gage.
- Number of Remotes required. Remotes are optional and may not be required for your configuration.
- Number and type of Bases (USB, USB MicroBase or RS-232) required. You will need a Base for each PC that will be receiving wireless measurements
- Accessories such as Serial to USB cables.

The most difficult task in this configuration process can be determining the gage cables and Mobile Modules required for your gages. The MobileCollect Selection Tool allows you to enter the gage models (gage code for Mitutoyo gages) and will show you the gage cables and Mobile Modules required for your gages. The MobileCollect Selection Tool contains information for over 1,000 gage models and allows you to guickly configure a MobileCollect. system.

Using the MobileCollect Selection Tool

- Select the gage manufacture from the list of supported manufactures. Additional gage manufacturers will be added in the future.
- Search for the gage using the model/code number and/or gage type.
- When a selected gage is added to the selected gage list, the type of Mobile Module will automatically be identified.
- Specify the number of gage cables required for a gage model. The total price of the gage cables, number of Mobile Modules and total price of the Mobile Modules will automatically be displayed.
- Specify the number of Remotes required, and the total prices will automatically be displayed. Remotes are optional and may not be required for your configuration.
- Specify the number and type of Bases required, and the total prices will automatically be displayed. A Base is required for each PC that will be receiving wireless measurements.
- Print a summary report showing all of the items selected. This report shows individual and total prices.
- Save the configuration to a file for later retrieval.

2 Mobile Modules

The Mobile Modules are portable battery operated transmitters that are typically used with gages such as calipers, micrometers, digital indicators, etc. Support is provided for digital and RS-232 gages and devices. The MobileCollect Mobile Modules support more gages than wireless systems from other manufacturers. Gage manufacturers supported included Brown & Sharpe, CDI, Fowler, Insize, LMI, Mahr Federal, Mitutoyo, Ono Sokki, Starrett, Sylvac, etc.

The MobileCollect Mobile Modules include the following models.

Digital Mobile Module

Supports digital gages (gages with non-RS232 outputs) and most handheld gages with RS-232 output.

The types of RS-232 gages supported included gages with TTL level outputs, Opto Simplex and Opto Duplex outputs.

Mini Mobile Module is less than half the size (measured on a volume basis) of a Digital Mobile Module and supports most of the gages supported by

the Digital Mobile Module.

Command Mobile Module This Mobile Module is a version of the Digital Mobile

Module, and has all the features and gage support found in the Digital Mobile Module. The Command Mobile Module has the ability to receive wireless read

and sleep commands from a MobileCollect Base.

RS-232 Mobile Module This Mobile Module is used for gages and devices that

provided full RS-232 level signals. Digital gages are

not supported by this Mobile Module.

The enclosures used for the Digital, Command and RS-232 Mobile Modules are all the same. The enclosure used for the Mini Mobile Module is smaller than the Digital Mobile Module enclosure.

2.1 Mini, Command & Digital Mobile Modules

The Mini Mobile Module was released on November 18, 2013 and is used to capture measurements from virtually any hand held digital gage and hand held serial gages. The Mini Mobile Module supports most of the gages that are supported by the Command and Digital Mobile Module. This include gages from Brown & Sharpe, CDI, Fowler, Mahr Federal, Mitutoyo, Ono Sokki, Starrett, Sylvac, etc. Other manufacturers also make gages that have compatible outputs and these gages can also be used with the Mini Mobile Module.

The Digital Mobile Module was discontinued in April 2016. The Command Mobile Module is the same size as the previous Digital Mobile Module and supports the same gages supported by the Digital Mobile Module.

Differences Between the Mini and Command Mobile Module

The Mini Mobile Module and the Command Mobile Module are very similar. The primary differences between these 2 Mobile Modules are listed below.

- The Mini Mobile Module is less than half the size (measured on a volume basis) of a Digital Mobile Module.
- The Command Mobile Module automatically detects the type of gage cable connected. The user must specific (with one of the Setup Programs) the type of gage cable connected to a Mini Mobile Module. Experience has shown that the type of gage cable connected to a Mobile Mobile is rarely changed.
- Most of the gages supported by the Command Mobile Module are also supported by the Mini Mobile Module. A few of the less frequently used gages are not supported by the Mini Mobile Module.
- The gage cables used by the Command Mobile Module cannot be used with the Mini Mobile Module.
- You can send commands from a Base to tell a Command Mobile Module to take a reading. With the Mini Mobile Module, you must press the read button on the Mobile Module or gage cable to get a reading.

2.2 RS-232 Mobile Module

The RS-232 Mobile Module is used to capture measurements from gages and serial devices that output full RS-232 level signals. RS-232 output levels typically range from 5 to 8 volts down to -5 to -8 volts. Special components are required to handle these voltage levels and are included as part of the RS-232 Mobile Module design.

The gages that use the proximity interface from Sylvac must be used with the RS-232 Mobile Module. This interface is used on handheld gages such as calipers. Gages that use this interface are available from Fowler, Starrett, etc.

The RS-232 Mobile Module only supports RS-232 devices. You cannot use gages supported by the Command and Mini Mobile Modules (Mitutoyo, CDI, Ono Sokki, etc.) with the RS-232 Mobile Module. RS-232 gages that use the Opto connector (Fowler, Starrett, Sylvac, etc.) have low voltage outputs and are used with the Command and Mini Mobile Module rather than the RS-232 Mobile Module. A few RS-232 gages from Mahr Federal are also used with the Command and Mini Mobile Module rather than the RS-232 Mobile Module.

The RS-232 Mobile Module uses the same enclosure that is used for the Command Mobile Module. The battery life for an RS-232 Mobile Module will be less than the battery life experienced with a Command Mobile Module. The power demands for a device outputting full RS-232 voltage levels is much high than the power required by a Mitutoyo compatible gage.

2.3 Command Mobile Module

The Command Mobile Module allows you to send commands from a Base to the Command Mobile Module. These commands include the ability to tell the Command Mobile Module to initiate a gage reading, go to sleep, etc. By default, the command functionality is disabled in the

Command Mobile Module. This command functionality can be enabled by using the MobileCollect Xpress or Extended Setup Programs. If the command functionality is disabled, the Command Mobile Module will function the same as the discontinued Digital Mobile Module.

Contact MicroRidge to learn more about the Command Mobile Module and to determine if it is appropriate for your application.

3 Gage Cables

A gage cable is required to connect a Mobile Module to a gage. There are 3 different types of gage cables.

- Cables for Mini Mobile Modules.
- Cables for Digital and Command Mobile Modules. These 2 Mobile Modules use the same gage cables.
- Cables for RS-232 Mobile Modules.

When you select a gage in the MobileCollect Selection Tool, the Mobile Module required for this gage will be automatically selected.

3.1 Cable Lengths

The cable lengths displayed in the MobileCollect Selection Tool are the default length used with each gage model. If you do not specify a cable length at the time of order, the default cable length will be shipped. The standard cable lengths are as follows:

Length	Typical Usage
3.5"	Standard for calipers
6.5"	Most micrometers & indicators
9"	Available by special request
12"	Available by special request
18"	Available by special request
24"	Available by special request

3.2 **Mobile Module Connectors**

The 3 different types of gage cables used by the Mobile Modules can easily be identified by the connector at the end of the gage cable that connects to the Mobile Module. The connector for each of the gage cable types is shown below.

These cables use a 2x3 connector. Mini Mobile Module



These cables use a 2x7 connector. Digital Mobile Module



Command Mobile Module This Mobile Module uses the same cable as the Digital

Mobile Module.

These cables use a 2x6 connector. RS-232 Mobile Module



4 Gage & Price Updates

Since supported gages and pricing are subject to change, be sure you have the current version of the MobileCollect Selection Tool. Check the <u>MobileCollect Selection Tool download page</u> to verify that you have the latest version. To update the Selection Tool on your PC, you must download the installation file and then run this file to install the updated MobileCollect Selection Tool. The MobileCollect Selection tool has been tested on Windows XP, Windows 7 and Windows 10.

5 Selection Tool Operation

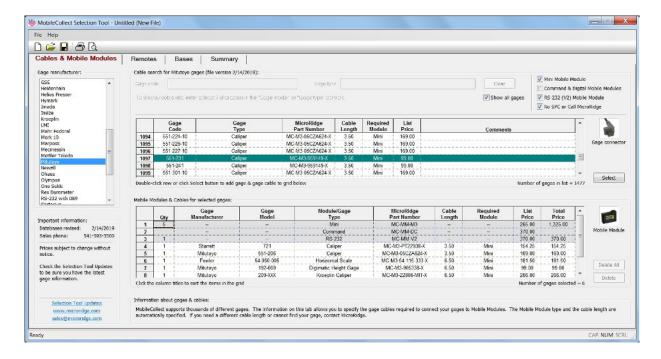
The MobileCollect Selection Tool has been tested on Windows XP, Windows 7 and Windows 10. There is an acceptable minimum screen resolution and font size required by the program. If the main program window does not fit on your screen, try reducing the default screen font size. If reducing the font size does not fix the problem, you will need to use a monitor with a higher resolution. The minimum resolutions that have been tested with the program are 1280×800 and 1366×768 .

The MobileCollect Selection Tool can be installed on multiple computers as required to support your sales and quoting efforts. The operation of the Selection Tool is very straight forward. After you install the program, work with it for a few minutes and you should quickly become proficient with the operation of the Selection Tool.

5.1 Selection Tool Tabs

The MobileCollect Selection Tool uses 4 tabs to access the features of the program. Start with the first tab (Cables & Mobile Modules), select the gages you will be using and then proceed to the next tab. The last tab (Summary) will show the results of all of the selected items.

5.1.1 Cables & Mobile Modules



This tab is the starting point for using the MobileCollect Selection Tool. You will need to know the list of gage manufactures and gage models that you want to use with MobileCollect. If you are connecting Mitutoyo gages, use the gage code rather than the gage model.

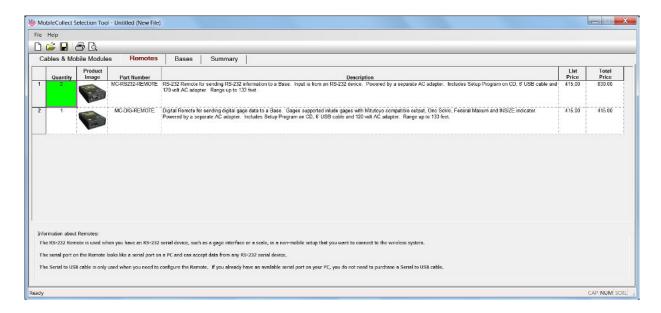
If you are using a gage that is supported by the Mini and/or Digital Mobile Module, you must specify the type of Mobile Module you want to use. There are a set of check boxes in the upper right-hand corner of this tab that allows you to specify what cables will be displayed in the cable search grid. The selection grid will not simultaneously display the cable part numbers for both the Mini and digital Mobile Modules.



Follow these steps to build the list of gage cables and Mobile Modules required for your application.

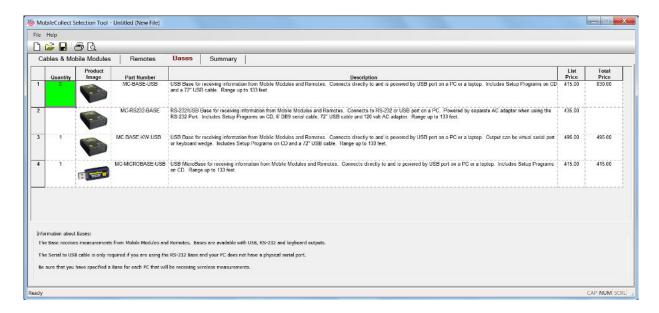
- Select the Mobile Module check boxes for the module types you are interested in.
- Select the gage manufacturer. If the manufacturer is not Mitutoyo, the list of gages in the database will be displayed. If the manufacturer is Mitutoyo, you will need to enter information in the Gage code and/or Gage type fields. There are over 1,200 items in the Mitutoyo database and it is easier to zero in on the desired gage by entering the gage information.
- To add a gage to the Mobile Modules & Cables for selected gages grid, double-click the gage in the upper grid or select the gage and click the Select button.
- In the lower grid, modify the quantity fields as necessary. The Selection Tool will automatically update the number and type of Mobile Modules required.

5.1.2 RS-232 Remotes



If you need RS-232 Remotes for your application, specify the number required on this tab. The USB interface cable is only required is you need to configure the RS-232 Remote with a computer that does not have a serial port. The USB interface cable is not used to connect your serial device to the RS-232 Remote.

5.1.3 Bases

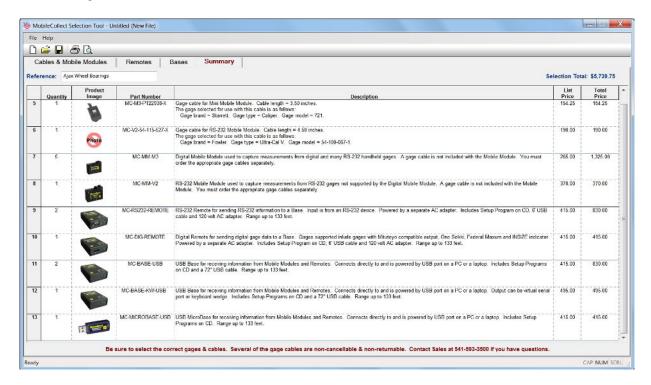


Bases are needed in order to receive measurement information from Mobile Modules and RS-232 Remotes. Bases are available with a 9-pin RS-232 connector or a USB connector. The USB Base and USB MicroBase requires the installation of a driver on your PC. Once the driver is installed and the Base is connected, the application software on the PC will communicate with the Base via a virtual RS-232 serial port.

If you want the Base output to appear as keyboard input to your application, use the MC-RS232-BASE-SP-PKG product. The USB interface cable is only required if you need to configure and/or use an RS-232 Base with a computer that does not have a serial port.

Contact MicroRidge 17 if you have question about the Base selection process.

5.1.4 Summary



The Summary tab displays the results of the the gage cables, Remotes and Bases that have been selected. The Reference field in the upper left corner of the window allows you to enter a description (i.e., customer name, etc) for the currently selected items. You can also save a copy of the selection summary to a file.

5.2 Printed Summary

Reference: Ajax Wheel Bearings Selection Total: \$8						
	Quantity	Product Image	Part Number	Description	List Price	Total Price
1	1		MC-M3-05CZA624-X	Gage cable for Mini Mobile Module. Cable length = 3.50 inches. The gage selected for use with this cable is as follows: Gage brand = Mitutoyo. Gage type = Caliper. Gage code = 551-206.	169.00	169.00
2	1	Photo	MC-M3-22806-MIT-X	Gage cable for Mini Mobile Module. Cable length = 6.50 inches. The gage selected for use with this cable is as follows: Gage brand = Mitutoyo. Gage type = Kroeplin Caliper. Gage code = 209-XXX.	266.00	266.00
3	1	*	MC-M3-54-115-333-X	Gage cable for Mini Mobile Module. Cable length = 6.50 inches. The gage selected for use with this cable is as follows: Gage brand = Fowler. Gage type = Horizontal Scale. Gage model = 54-050-005.	181.50	181.50
4	1	\	MC-M3-905338-X	Gage cable for Mini Mobile Module. Cable length = 6.50 inches. The gage selected for use with this cable is as follows: Gage brand = Mitutoyo. Gage type = Digirnatic Height Gage. Gage code = 192-669.	99.00	99.00
5	1	ø	MC-M3-PT22938-X	Gage cable for Mini Mobile Module. Cable length = 3.50 inches. The gage selected for use with this cable is as follows: Gage brand = Starrett. Gage type = Caliper. Gage model = 721.	154.25	154.25
6	1	Photo	MC-V2-54-115-527-X	Gage cable for RS-232 Mobile Module. Cable length = 4.50 inches. The gage selected for use with this cable is as follows: Gage brand = Fowler. Gage type = Ultra-Cal V. Gage model = 54-100-067-1.	190.00	190.00
7	5	===	MC-MM-M3	Digital Mobile Module used to capture measurements from digital and many RS-232 handheld gages. A gage cable is not included with the Mobile Module. You must order the appropriate gage cables separately.	265.00	1,325.00
8	1		MC-MM-V2	RS-232 Mobile Module used to capture measurements from RS-232 gages not supported by the Digital Mobile Module. A gage cable is not included with the Mobile Module. You must order the appropriate gage cables separately.	370.00	370.00
9	2		MC-RS232-REMOTE	RS-232 Remote for sending RS-232 information to a Base. Input is from an RS-232 device. Powered by a separate AC adapter. Includes Setup Program on CD, 6' USB cable and 120 volt AC adapter. Range up to 133 feet.	415.00	830.00
10	1		MC-DIG-REMOTE	Digital Remote for sending digital gage data to a Base. Gages supported inlude gages with Mitutoyo compatible output, Ono Sokki, Federal Maxum and INSIZE indicator. Powered by a separate AC adapter. Includes Setup Program on CD, 6' USB cable and 120 volt AC adapter. Range up to 133 feet.	415.00	415.00

A sample of a printed summary is shown above. Please refer to the <u>Purchase Orders</u> section for information about using this summary as part of a purchase order.

If you want to print this summary to a PDF file, you must have a PDF Writer installed on your computer.

6 Purchase Orders

The summary printed by the MobileCollect Selection Tool <u>cannot</u> be submitted as a purchase order to MicroRidge Systems. Purchase orders must contain complete information such as billing address, shipping address, payment method, etc. However, you can submit a standard company purchase order and use the printed summary as an attachment to this purchase order.

7 Warranty Information

The standard MicroRidge warranty for products it manufactures and resells is described below:

- MicroRidge warrants that equipment manufactured by MicroRidge to be free from defects in material and workmanship, when properly maintained under normal use, for a period of twelve (12) months from date of purchase of the product (the "warranty period"). Some products sold and distributed by MicroRidge are warranted by the manufacturer of the products.
- Warranty for gage and RS-232 interface cables is 30 days from date of shipment.
- Products which do not conform to their description or which are defective in material or workmanship will, by MicroRidge decision, be replaced or repaired, or, at MicroRidge's option, credit for the original purchase price may be allowed provided that customer notifies MicroRidge in writing of such defect within thirty (30) days of discovery and returns such products in accordance with the MicroRidge instructions. No products may be returned without MicroRidge prior written authorization.
- This warranty does not apply to any product which has been subjected to misuse, abuse, negligence or accident by the customer.
- MicroRidge makes no other warranty or representation of any kind with respect to the products, either express or implied, including without limitation, that of merchantability or fitness for a particular use. Failure to make any claim in writing, or within the thirty (30) day period set forth above, shall constitute an irrevocable acceptance of the products and an admission by the customer that the products fully comply with all terms, conditions and specifications of customer's purchase order. MicroRidge shall not be liable for direct, indirect, incidental, special or consequential damages, under any circumstances, including, but not limited to, damage or loss resulting from inability to use the products, increased operating costs or loss of sales, or any other damages. To make a claim under this warranty, customer must notify MicroRidge in writing within the warranty period.
- Customer will pay all shipping charges (and duty and taxes) for equipment returned to MicroRidge for warranty service. MicroRidge will pay shipping charges for equipment returned to customer in North America. Customers outside the USA are responsible for duty and taxes on equipment returned to them.
- Software developed by MicroRidge is warranted to operate in accordance with the software documentation on the hardware specified in such documentation, for a period of six (6) months from date of shipment. During the warranty period, MicroRidge will at no charge correct any programming error in the software that interferes with normal operation of the software provided that MicroRidge is able to reproduce such error on MicroRidge computer.

8 Contact MicroRidge

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Note: There is no mail delivery to this address. This address should only be used for package delivery services such as UPS, FedEx, etc.

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