MobileCollect™
Extended Setup

User's Guide

MICRORIDGE

Measurement Collection Specialists
Connect Any Gage into Any Software

MobileCollect Extended Setup Program

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Created: Thursday, October 15, 2020 at 10:12 AM in Sunriver, Oregon.

This User's Guide has been formatted for double-sided printing.

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1   Introduction

The MobileCollect Extended Setup Program is used to set up and configure the MobileCollect Bases, Remotes and Mobile Modules. The MobileCollect Extended Setup Program also supports the GageWay Wireless System. The GageWay Wireless System was replaced by MobileCollect in May 2010.

To install this program, select the MobileCollect Extended Setup Program on the Product Resources DVD and follow the instructions. If you install the Setup Program on a network drive rather than a local drive on your PC, you may not have access to Help files associated with the Setup Program. This Help file access limitation is due to restrictions Microsoft has placed on accessing html Help files (.chm) on network drives.

The Setup Program consists of a series of tabs. The Main Setup tab is used for Base and Remote configuration. The other tabs in the Setup Program will be enabled or disabled based upon the unit (Base or Remote) that you are configuring.

Most people that use the Extended Setup Program to configure their Mini and RS-232 Mobile Modules could use the MobileCollect Xpress Setup Program. The Xpress Setup Program provides access to the most common setup features required by most users. The Xpress Setup Program is easier to use and we strongly recommend that you take a look at this program.

In addition to supporting the MobileCollect product line, Extended Setup now supports receiving measurements from the following devices. Refer to the MobileCollect Documentation [51] section for more information.

- CDI Indicators that contain the embedded MicroRidge RM2.4 Radio Module. The RM2.4 Radio Module is the optional long range radio module used in the CDI CORE and VRS Indicators.

- Mitutoyo U-Wave Transmitters.

Mobile Collect User's Guides & Tech Notes

There are several User's Guides and Tech Notes that cover MobileCollect operation and setup. All of these documents are available as PDF documents and can also be accessed from the various MobileCollect software utilities. The User's Guides and Tech Notes for MobileCollect are listed below. All of the documents, except for Xpress Setup, are installed when you install Extended Setup. Refer to the MobileCollect Documentation [51] section for more information about these documents.

- MobileCollect Quick Start User's Guide

- MobileCollect Hardware Components User's Guide

- MobileCollect Xpress Setup User's Guide

- MobileCollect Extended Setup User's Guide (this document)

- MobileCollect RF Sniffer User's Guide

- Using CDI Indicator with MobileCollect Tech Note

- Using Mitutoyo U-Wave with MobileCollect Tech Note

Using Multiple Setup Programs

There are 2 different Setup Programs that could be used to configure a MobileCollect system. However, you must not use both of these Setup Programs to configure a Base and its Mobile Modules. If you use both of the Setup Programs to configure a Base and its Mobile Modules, the results may be what you expect. The rules for the use of the Setup Programs is simple.

Use Xpress Setup or Extended Set to configure a Base and its Mobile Modules. Do not used both of these programs.

Technical Terms & Phrases

To assist in understanding the intent of certain technical terms and phrases, the following provides a description of these items.

Associating vs Pairing

Previously in this document, the process of connecting a transmitter to a receiver was referred to as Associating. However, today the word Pairing is more commonly used to describe this connection process. In this document, the words such as Associate and Associating have been changed to Pair and Pairing.

Receivers

A wireless system contains transmitters and receivers. MobileCollect Bases are the receiver portion of the wireless system. For this document, a Base and a receiver are the same device.

Transmitters

As explained above, a wireless system contains transmitters and receivers. The transmitters in a MobileCollect wireless system can consist of MobileCollect Mobile Modules (Mini, Command, RS-232, etc.), Mitutoyo U-Wave Transmitters, CDI Indicators with an embedded RM2.4 Radio Module, RS-232 Remotes and Digital Remotes. When this document refers to a transmitter, it is referring to one or more of the devices listed in the previous sentence.

User's Guide Organization

This User's Guide covers the MobileCollect Extended Setup Program. This document has been designed for double-sided printing. If you print this document single sided, there will be several blank pages included in the printout.

If you are viewing the PDF version of this User's Guide, you will see page numbers to the right of links within the PDF document. For example the number to the right of the Contact MicroRidge Systems [55] link indicates the actual page number this link is directed to.

2   Getting Started

After installing the Extended Setup Program, there are a few tasks that should be done before you try to configure MobileCollect. Following these steps now, will save you later frustration and confusion.

- If you need to install a serial to USB cable, do it now by following the instructions included with the serial to USB cable. The RS-232 Bases and Remotes require an RS-232 serial connection to your computer and if you do not have a physical serial port, you must install a serial to USB cable. If the serial to USB cable was purchased from MicroRidge, you must install the USB drivers before connecting the cable to your PC.

- If you are using a USB Base, you must install the USB drivers included on the Product Resources DVD. These USB drivers must be installed before connecting the USB Base to your PC.

- All of the configuration files for MobileCollect should be saved to a single setup file folder on your PC or a network drive. When you find a Base or Remote, or send a configuration file to a Base or Remote, additional files may be created in this setup folder. These additional files are accessed when you pair Remotes with Bases. These files may also be accessed when configuring items on the Base Setup tab. To specify the default setup file folder, start the Setup Program and select the "File\Default Setup File Folder…" menu item. If you choose the default installation location, the setup file folder will be created at the following location when you first run the Setup Program. It is recommended that the location of the setup file folder be in a location that is backed up on a regular basis.

    My Documents\MicroRidge\MobileColect\Setup_Files

- When searching for a connected Base or Remote, the Setup Program will only look at the serial ports that are checked in the Available Serial Ports dialog. You can access this dialog by selecting the "Setup\Available Serial Ports…" menu item. Be sure the serial ports that you want to use are checked.

- If you have installed a serial to USB cable and you do not see it in the list of ports, verify that the adapter is plugged into a USB port on your PC. If the USB adapter is installed, try rebooting your computer and/or reinstalling the USB drivers.

In some cases you will not have to use the Setup Program to configure MobileCollect. If all of the following are true, you do not have to use the Setup Program.

- The baud rate for the Base needs to be the default value of 9600-N-8-1.

- You want to use the default channel 21 for your wireless communications.

- You will not be sending data from Remotes to the Base.

- You only need the measurement from a Mobile Module sent to your PC. You do not need other items such as Module ID, battery condition, channel identifier, etc.

- You will be pairing the Mobile Modules with the Base by using the Pairing-on-the-Fly method. Refer to the Hardware Components User's Guide for more information about Pairing-on-the-Fly.

3   Mobile Module Buttons

When configuring MobileCollect with the Extended Setup Program, you will need to put the Mobile Module into the Setup Mode and send the configuration parameters from the Mobile Module. The 2 buttons (Read and Setup) on the Mobile Module are used to enter the Setup Mode and the Setup button is used to send the configuration parameters.

Mobile Module Buttons

Mobile Module Buttons and LEDs

The button and LED positions are the same on all of the Mobile Modules. These modules consist of the Mini, Command and RS-232 Mobile Modules.

Mobile Module Setup Mode

All of the Mobile Module pairing and configuration methods require the Mobile Module to be placed into the Setup Mode. To put the Mobile Module into the Setup Mode, follow the steps below:

- Press & hold the Setup button. The Setup button is the button closest to the gage cable.

- While you continue to press the Setup button, press and release the Read button.

- Once both LEDs start to flash, release the Setup button.

- When the Setup Mode is active, both LEDs will flash rapidly. The left LED is red and the right LED is green.

Sending Configuration Parameters from a Mobile Module

To send configuration parameters from a Mobile Module to a Base or a Setup Program, press and release the setup button when the Mobile Module is in the Setup Mode. This procedure is used when sending the configuration parameters to the Setup Program and when doing a Pairing-on-the-Fly with a Base. Refer to the Hardware Components User's Guide for more information about Pairing-on-the-Fly.

Exiting Setup Mode

The Mobile Module will automatically exit the Setup Mode after a period of no activity. The Command and RS-232 Mobile Modules will automatically exit after 60 seconds and the Mini Mobile Module will automatically exit after 15 seconds.

To manually exit the Setup Mode, press and release the Read Button.

4   How to Set Up MobileCollect

When setting up a Base or Remote, you should connect the unit to a serial or USB port on your PC and then have the Setup Program find the unit. You have to indicate whether you want to find a Base or Remote. After selecting the type of unit to find, press the Find Base or Remote button on the Main Setup tab or click the Find button (   ) on the toolbar. The Setup Program will only look for the type of unit you have specified.

After the Base or Remote has been found, modify the items on the enabled tabs as necessary. When configuring MobileCollect, it is recommended that you perform the setup in the following order

1. Configure the Base units before you try to configure Mobile Modules or Remotes.

2. Configure the items on the Main Setup tab and send these parameters to the Base unit. Do not set up the items on the Base Setup tab until you have completed steps 3 and 4. Be sure to save the configuration to a disk file.

3. Configure the Mobile Modules through the Mobile Module Setup tab.

4. Configure the Remote units. Be sure to transfer the configuration parameters to the Remote units and save the configuration parameters for the Remotes to a disk file.

5. Read the current configuration parameters from the Base unit and configure the items on the Base Setup tab. Transfer these parameters to the Base unit and save the configuration to a disk file.

Each time you find a Base or Remote, an information file is created in the setup file folder. These information files have a file name that is the same as the serial number of the unit and the files contain information such as communication parameters, Station IDs, descriptions, network S/N, etc. The user should never directly modify these files. When you pair a Base with a Remote on the Remote Setup tab, these files are automatically accessed and provide you with a list of Bases that have been identified with the Extended Setup Program.

An information file is also created for a Mobile Module when you access the Mobile Module setup dialog from the Mobile Module Setup tab [29].

5   Configuration & Information Files

There are several file types that are stored in the setup file folder. The file extensions of these files have the following meaning. The first 3 characters (gws) on several of the files were used to indicate GageWay Wireless System. The same file extensions are used with MobileCollect in order to maintain compatibility with the previous GageWay Wireless System.

gws_bas	Base parameter file.
gws_rem	Remote parameter file.
BaseSN	Base information file accessed by the Setup Program. Do not modify this file.
RemoteSN	Remote information file accessed by the Setup Program. Do not modify this file.
MobileSN	Mobile Module information file accessed by the Setup Program. Do not modify this file.

6   Transferring Setup Parameters

When you make changes to the setup parameters, these parameters are not automatically saved to a disk file or sent to the Base or Remote. The setup parameters for a Base or Remote can be read from the unit and sent back to the unit. The Base and Remote parameters can also be written to a disk file.

To transfer the setup parameters to and from a Base or Remote, you must first find the unit.

Press the Find button on the Main Setup tab or press the Find button ( ) on the toolbar. After the unit has been located, press the Read button ( ) on the toolbar to read the setup parameters from the unit into the Setup Program. After modifying the parameters, press the Send button ( ) on the toolbar to transfer the modified parameters back to the unit. If you want to save these parameters to a file, you must use the File/Save menu item.

7 Main Setup Tab

The items on the Main Setup should be easy to understand. The screen capture shown below is an example of the Main Setup tab after a Base has been found. You can click on the Operational mode radio buttons (Base and Remote) to enable access to the Base or Remote tabs. Once a Base or Remote is found, the Operational mode radio buttons cannot be manually changed unless you press the Disconnect button.
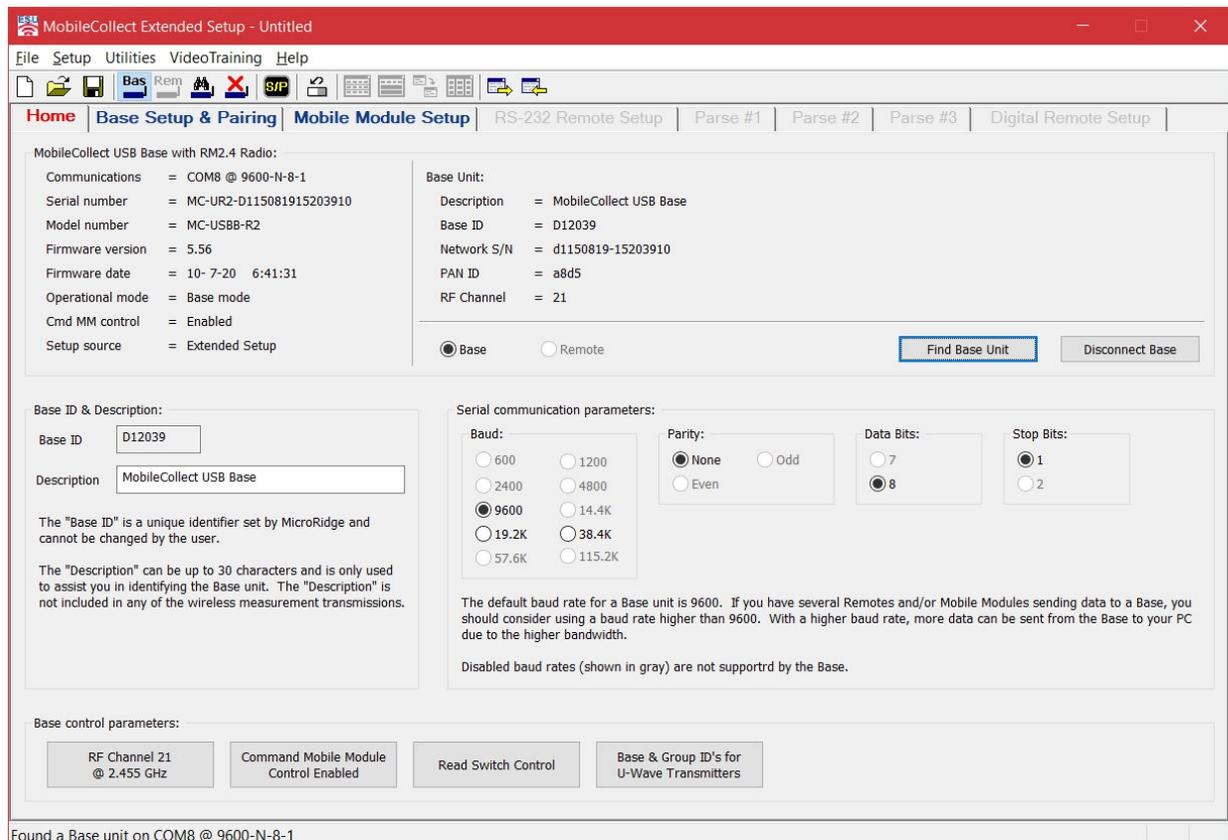
Base Setup

If a Base has been found, you will be able to set up the following items on the Main Setup tab.

- Description

- Serial communication parameters

- RF Channel

- Command Mobile Module Control

- Read Switch Control

The Station ID is preset by MicroRidge and cannot be changed by the user.

Remote Setup

If a Remote has been found you, will be able to set up the following items on the Main Setup tab.

- Description

- Serial communication parameters

The Station ID is preset by MicroRidge and cannot be changed by the user. Refer to the Remote Setup Tabs [41] section for information on how to configure a Remote

7.1   Sending Setup to Base or Remote

After you modify the setup parameters for a Base or Remote, you must send the modified setup parameters to the Base or Remote. This is a step that users often miss and then wonder why their Base or Remote is not functioning as expected. Refer to Transferring Setup Parameters [13] for more information.

7.2   Baud Rate

It is strongly recommended that you keep the baud rate as high as possible for Bases. If you only have a few Remotes or Mobile Modules sending data to a Base, using a lower baud rate would be okay. However, if you have numerous Remotes and Mobile Modules, the baud rate must be high enough that the measurement data can be transferred from the Base faster than it is being received. The default baud rate is 9600.

7.3   RF Channels

The RF communication channels can be set for the Bases, Remotes and Mobile Modules. The RF channels that can be used by MobileCollect range from channels 11 to 26. If you are using GageWay Wireless components with MobileCollect, you can only use channels 12 to 23. Two of the channels have specific designations as shown below.

Channel 14   This channel is reserved for wireless firmware updates of the Mobile Modules and for parameter transfer. This channel is not used to send any measurement information.

Channel 21   This is the default communications channel when units are received from MicroRidge.

The table below shows each channel and the frequency used by each of the channels.

RF Channel	Minimum Frequency, GHz	Middle Frequency, GHz	Maximum Frequency, GHz	Description
11	2.4035	2.405	2.4065	Available RF channel (MobileCollect only)
12	2.4085	2.410	2.4115	Available RF channel

RF Channel	Minimum Frequency, GHz	Middle Frequency, GHz	Maximum Frequency, GHz	Description
13	2.4135	2.415	2.4165	Available RF channel
14	2.4185	2.420	2.4125	Reserved for firmware updates & parameter transfer
15	2.4235	2.425	2.4265	Available RF channel
16	2.4285	2.430	2.4315	Channel may conflict with default WiFi channel 6
17	2.4335	2.435	2.4365	Channel may conflict with default WiFi channel 6
18	2.4385	2.440	2.4415	Channel may conflict with default WiFi channel 6
19	2.4435	2.445	2.4465	Channel may conflict with default WiFi channel 6
20	2.4485	2.450	2.4515	Available RF channel
21	2.4535	2.455	2.4565	Default communications channel
22	2.4585	2.460	2.4615	Available RF channel
23	2.4635	2.465	2.4665	Available RF channel
24	2.4685	2.470	2.4715	Available RF channel (MobileCollect only)
25	2.4735	2.475	2.4765	Available RF channel (MobileCollect only)
26	2.4785	2.480	2.4815	Available RF channel (MobileCollect only)

Some of the WiFi wireless network systems also use channels that overlap with the MobileCollect channels. The default WiFi channel is 6. WiFi uses a different channel number system and each WiFi channel covers a wider frequency range. As shown in the table above, WiFi channel 6 will overlap 4 of the MobileCollect channels. In many cases, a WiFi network can use the same channel used by a MobileCollect installation. To help you identify the best channels to use for MobileCollect, you can run some tests with the MobileCollect RF Channel Sniffer[48] program.

7.3.1 What RF Channel Should I Use

The answer is simple. Try the default channel 21 and if it works, use it. The transmission duty cycle for sending a measurement is very short. Normally the total time that the transmitters are active for a measurement is less than 20 msec (0.020 seconds). If you take 1,000

measurements in an 8-hour period, MobileCollect will be transmitting data for a total time of about 20 seconds.

Sometimes it may be necessary to use a channel other than 21. The reasons to select another channel could include the following.

- You have other equipment that is communicating on the same frequency as channel 21 and you do not want anything else using the channel 21 frequency.

- You have multiple MobileCollect Bases that are receiving measurements via a continuous read mode. You may need to use channels other than 21 for some of the Bases and Mobile Modules.

- You are sending commands from a Base to a Command Mobile Module (CMM), and you are sending measurements from a RS-232 Mobile Module to another Base. It is recommended the Base and its CMMs be on a different channel than the other MobileCollect units.

If you are not sure how much wireless traffic you have in your facility, you should use the MobileCollect RF Channel Sniffer [48] to determine the RF activity.

7.4   Command Mobile Module Parameters

The information in this dialog is only used if a Base is controlling a Command Mobile Module. These values are not used with Mini Mobile Modules, RS-232 Mobile Modules or Remotes.

In order for a Base to send read requests to a Command Mobile Module, you must enable the Base control in the above dialog. By default, this Base control is enabled.

The times set in the Control Parameters for Command Mobile Modules section, specify the length of time that a Command Mobile Module will listen for a command from a Base. When a Command Mobile Module receives a command from a Base, the Command Mobile Module will reset its timeout timers. For example, if a Command Mobile Module is in the Active mode and the Active time is set for 10 minutes, the Command Mobile Module will turn off if it has not received a command from the Base for the last 10 minutes. If the Command Mobile Module receives a command from the Base, the 10 minute timeout period will be restarted.

Keep awake time

Maximum amount of time a Command Mobile Module will stay awake after it receives a command from the Base. A 2 second waiting period should be sufficient to receive and process all the commands from a Base.

Active Mode

This mode is used for measurement taking and wakes up every 0.5 seconds to listen for a command from the Base. When you press and release the Setup button on a Command Mobile Module, the Command Mobile Module will switch to Active mode. When the Command Mobile Module receives no commands for the specified time period, the Command Mobile Module will turn off. Keep the Active time as low as possible to extend the battery life.

Standby Mode

This mode is a power saving mode and wakes up every 10 seconds to listen for a command from the Base. When the CMM receives no commands for the specified time period, the Command Mobile Module will turn off.

Extended Standby Mode

This mode is a power saving mode and wakes up every 60 seconds to listen for a command from the Base. When the CMM receives no commands for the specified time period, the Command Mobile Module will turn off.

7.5 Read Switch Control

The standard USB Base and RS-232 Base each contain a single read switch connector for a hand switch or foot switch. There is an option to have a total of 3 read switch connectors installed on the current USB and RS-232/USB Bases. The previous version of the USB Base (prior to January 2016), had an option for up to 4 read switch connectors. Contact MicroRidge [55] if you need to increase the number of read switch connectors on a Base.

Read Switch Functions

There are 15 predefined functions available for each read switch. Some of the functions require additional information as shown in the dialog above. The read switch functions available are listed below.

Disabled	Disable the read switch connector.
Send Command to Host	Send the specified command to the Host computer.
Read a Digital Remote	Get a single reading from a specific Digital Remote. You must specify the Digital Remote IDs in the Base Setup tab before the available Digital Remotes will be shown in the drop-down list.
Continuous read a Digital Remote	Get continuous readings from a specific Digital Remote. Press and release the read switch to start the reading process. Press and release the read switch to stop the reading process. You must specify the Digital Remote IDs in the Base Setup tab before the available Digital Remotes will be shown in the drop-down list.

TIR Read a Digital Remote	Do a TIR read process from a specific Digital Remote. Press and release the read switch to start the TIR process. Press and release the read switch to stop the TIR process. You must specify the Digital Remote IDs in the Base Setup tab before the available Digital Remotes will be shown in the drop-down list. The output of a TIR process is: Number of readings, Minimum reading, Maximum reading, Range.
Read all Digital Remotes	Read all of the Digital Remotes. You can specify from 1 to 2000 measurements to be obtained from the Digital Remotes. If you specify 2 or more measurements, a single measurement will be obtained from each Digital Remote and then another measurement from each Digital Remote, etc. For example, if you have 2 active Digital Remotes and you specify 3 reading, you will get reading as per the following: Digital #1 Digital #2 Digital #1 Digital #2 Digital #1 Digital #2
Send Command to RS-232 Remote	Send the specified command to the specified RS-232 Remote. You must specify the RS-232 Remote IDs in the Base Setup tab before the available RS-232 Remotes will be shown in the drop-down list.
Read all CMM Gages	Read the gages attached to all of the Command Mobile Modules. The Command Mobile Modules must be in the Active mode in order to get a gage reading. You can specify from 1 to 250 measurements to be obtained from the Command Mobile Modules. If you specify 2 or more measurements, a single measurement will be obtained from each Command Mobile Module and then another measurement from each Command Mobile Module, etc. For example, if you have 2 active Command Mobile Modules and you specify 3 reading, you will get reading as per the following: Cmm #1 Cmm #2 Cmm #1 Cmm #2 Cmm #1 Cmm #2
Read Channel 1 CMM Gage	Read the gage attached to the Command Mobile Module for channel 1.
Read Channel 2 CMM Gage	Read the gage attached to the Command Mobile Module for channel 2.

Read Channel 3 CMM Gage	Read the gage attached to the Command Mobile Module for channel 3.
Read Channel 4 CMM Gage	Read the gage attached to the Command Mobile Module for channel 4.
Set all CMMs to Active	Set all of the Command Mobile Modules to the Active mode. Only those Command Mobile Modules in the Standby mode will respond to this command. If a Command Mobile Module is off, you must press and release the Setup button to put the Command Mobile Module into the Active mode.
Set all CMMs to Standby	Set all of the Command Mobile Modules to the Standby mode. Only those Command Mobile Modules in the Active mode will respond to this command.
Turn off all CMMs	Turn off all of the Command Mobile Modules. The only way to turn the Command Mobile Modules back on is to press and release the Setup button on the Command Mobile Module.

Commands

The maximum length of a command is 25 characters. For control and extended characters you must put a special character code with brackets. The following shows the format of the more common control characters. The {\x..} format uses the hex value of the character.

Carriage return	{\x0d} or {CR}
Line feed	{\x0a} or {LF}
Tab	{\x09} or {Tab}
Esc	{\x1b} or {Esc}

8   Base Setup Tab

The Base Setup & Pairing tab allows you to configure the measurement output that is sent from the Base to your PC. You can also pair some devices with the connected Base from this tab.

In the screen capture shown above, we have set a Module ID for channel 1 to be 142236. If this Base unit receives a measurement packet from a Mobile Module with a Unit ID of 142236, the Base will do the following.

- Left justify the measurement (remove all leading spaces).

- Add a comma after the measurement.

- Add the Module ID for the Mobile Module.

- Add a carriage return to the end of the packet.

- Send the data string to the host computer.

If the Base unit receives a measurement packet from the AA1048 RS-232 Remote, the measurement will be sent to the host computer without any modification.

Remember, that in order for a transmitter to send data to a Base, it must be paired with that Base. If a packet is received from a transmitter and the Module ID is not specified in the grid, the measurement packet received from the transmitter will be processed by the Global channel if the Global channel is enabled.

Module Type & Pairing

The type of transmitter is specified in this column. If your transmitter is a Mobile Module, a CDI Indicator (with embedded RM2.4 Radio Module) or a U-Wave Transmitter, you can pair the transmitter on this tab. Refer to the [Module Types & Pairing](#) [25] section for more details.

Module ID

You can manually set the Module ID for Mobile Modules, RS-232 Remotes and Digital Remotes. To select the Module ID from a list of transmitters that have been configured by the Extended Setup program, right-click in the Module ID cell. You can also type the Module ID into the cell. For CDI Indicators and U-Wave Transmitters you cannot manually enter the Module ID. Remember, if you enter a Module ID into the cell, it does not mean that the transmitter is paired with the Base. You must go through a pairing process

Output Formats

You can specify the output format directly in the grid or select one of the predefined formats from the list in the Output formats section. The selections available are listed below.

- Use settings in above grid
- Meas, Chan xx
- Chan xx, Meas
- Meas, Module ID
- Meas, Chan xx, Module ID, Units, Battery, Signal, Attempts

Configuring for Command Mobile Modules (CMM)

If the Base will be sending commands to CMMs, you must specify CMM IDs in the grid. You cannot use the Global channel for sending commands to a CMM.

8.1   Module Types & Pairing

Several Module Types can be paired form the Base Setup tab. The Module Types that can be paired with the connected Base on this tab are listed below. MobileCollect RS-232 Remotes and Digital Remotes cannot be paired with the Base on this tab.

- MobileCollect Mobile Modules
  - Mini Mobile Module
  - Digital Mobile Module
  - Command Mobile Module with Command Mode disabled
  - RS-232 (V2) Mobile Module

- CDI Indicators with embedded MicroRidge RM2.4 Radio Module. The RM2.4 Radio Module is the optional long range radio module used in the CDI CORE and VRS Indicators.
  - CDI CORE Indicator
  - CDI VRS Indicator

- Mitutoyo U-Wave
  - U-Wave-T Transmitters
  - U-Wave-TM/TC (fit) Transmitters

The MobileCollect Mobile Modules have numerous configuration options that cannot be configured from the Base Tab. If you need to access these other configuration options, you must access the setup options available form the Mobile Mobile Setup tab ²⁹ .

The setup and configuration options for the CDI Indicators and U-Wave Transmitters are described in the Tech Notes that can be accessed from the MobileCollect Documentation ⁵¹ section.

8.1.1 Pairing Mobile Modules

The Extended Setup program allows you to add a variety of prefix and suffix information to the measurement packet sent from the Base to your PC. If you do not have the Extended Setup program installed on your PC, install it now from your Product Resources DVD that was included with your Base.
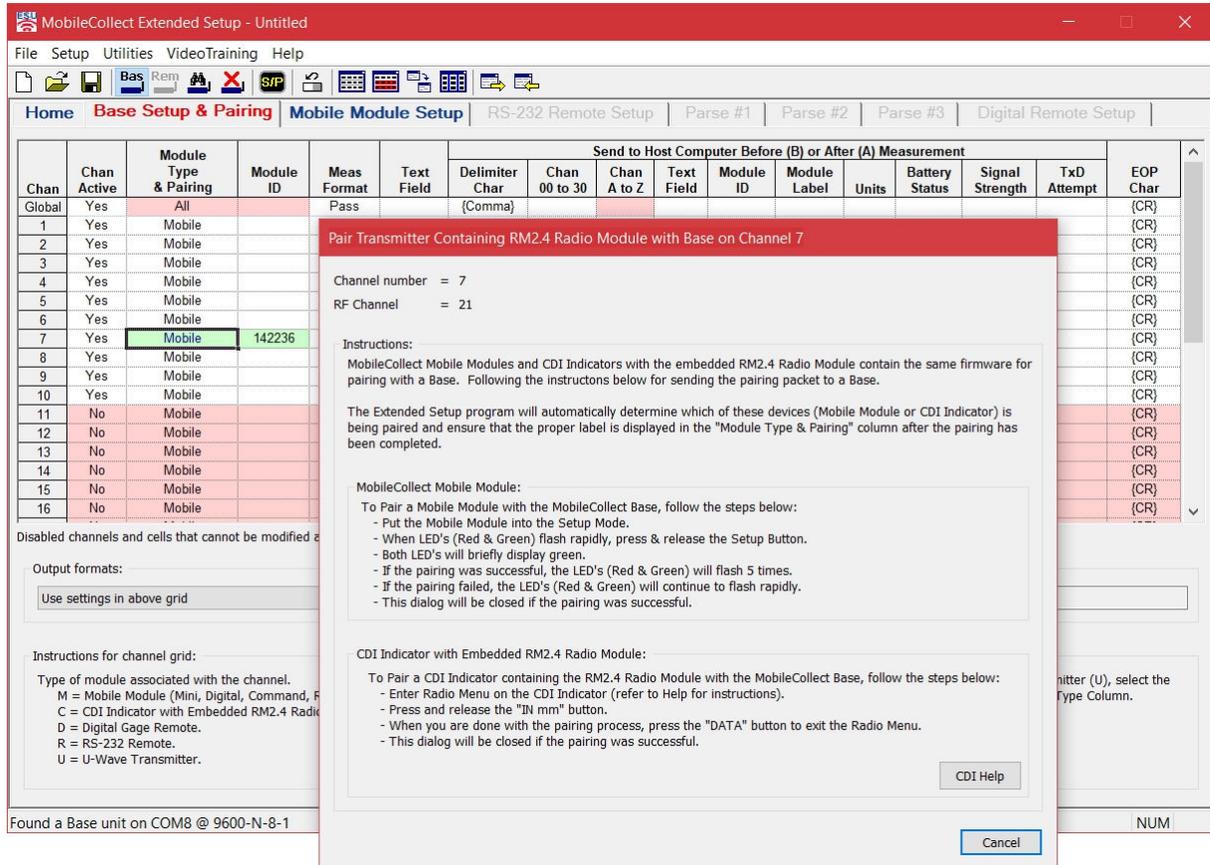
Extended Setup Showing a Mobile Module being Paired on Channel 7

To pair a Mobile Module using the Extended Setup program, follow the steps below.

1. Start Extended Setup and press the **Find Base Unit** button on the Home Tab.

2. Go to the **Base Setup & Pairing** tab.

3. If you are going to pair on the Global Channel, double-click the **Module Type & Pairing** cell for the Global Channel row.

   a. A dialog will appear showing the available Global Channel module types.

   b. Select the Mobile Module module type.

    c.   Click the OK button.

    d.   Go to step 5.

4.   If you are going to pair on an Individual Channel click the **Module Type & Pairing** cell for the channel you want to pair on.

    a.   Select the Mobile Module module type by pressing M on the keyboard.

    b.   Double-click in the **Module Type & Pairing** cell.

5.   The Pair Transmitter dialog shown above will be displayed.

6.   Put the Mobile Module into the Setup Mode. Refer to the Mobile Module Buttons [7] section for assistance.

7.   Press and release the Setup button.

8.   If the pairing was successful, the green hi-lite will be displayed in the **Module Type & Pairing** and the **Module ID** columns.

9.   The Pair Transmitter dialog will automatically close.

10.   The green hi-lite will be turned off in about 4 seconds.

11.   You are now ready to send gage readings to the Base.

9   Mobile Module Setup Tab

In many of the wireless configurations, you do not have to configure the Mobile Module with the Extended Setup Program. Listed below, are some of the reasons you may need to use the Extended Setup Program to configure your Mobile Modules. We recommend that you review the Xpress Setup Program so that you can determine if you can use the simpler setup process. If you are configuring a Command Mobile Module, you must use the Extended Setup Program.

- You want to pair the Mobile Module with the current Base.

- You want to pair the Mobile Module with a Base that is not connected to your computer. To do this pairing, the Base you want to pair with must have previously been found by the Extended Setup Program.

- You want to change the Mobile Module label or description.

- You want to configure the Mobile Module for continuous read mode.

- You want to enable or disable the command feature in a Command Mobile Module.

- You want to configure an RS-232 Mobile Module.

To configure a Mobile Module with the Extended Setup Program, perform the following steps:

▪ Click the Set Operational Mode to Base using the toolbar button (**Bas**).

▪ Find the Base by pressing the Find Base Unit button or click the Find a Base ( ) toolbar button.

▪ Select the Mobile Module Setup tab.

▪ Put the Mobile Module into the Setup Mode.

  o Press & hold the Setup button. The Setup button is the button closest to the gage cable.

  o While you continue to press the Setup button, press and release the Read button.

  o Once both LEDs start to flash, release the Setup button.

  o When the Setup Mode is active, both LEDs will flash rapidly. The left LED is red and the right LED is green.

▪ Press and release the Setup button. If a complete set of parameters was received by the Setup Program, the Setup Program will automatically display the appropriate Mobile Module configuration dialog.

9.1   Mini Mobile Module

Module Label

The Module label is a string that is sent as part of the measurement packet and can be sent to the host computer as part of the measurement string. Sending this label to the host computer is controlled by the setting in the Module Label column on the Base Setup tab.

Description

The Description field is to assist you in identifying the Mobile Module. The Description is never sent to the Base as part of a measurement.

Read Mode

The Read Mode can be Single, Continuous or TIR. If you set the Read Mode to Continuous or TIR, you must also specify the time gap between the readings. The minimum gap you experience may be a function of how often that gage actually provides the Mobile Module with a

reading. If the gage only sends a reading to the Mobile Module every second, the Read Gap you experience will be at least 1 second.

RF Channel

You can specify the RF transmission channel for the Mobile Module. Remember the Mobile Module can only communicate with a Base that is operating on the same channel. Before selecting a channel other than the default channel 21, please read the RF Channels section.

Gage Output

With the Mini Mobile Module, you must select the gage output type for the cable connected to the Mini Mobile Module. When a Mini Mobile Module is shipped, it is configured for the type of gage cable connected to the module. If you need to change the type of gage you will be using with the Mini Mobile Module, you must purchase a new cable from MicroRidge and then use the "Gage output type" button to display the Gage Output Type [33] dialog.

Base Pairing

If you want to pair the Mobile Module with the current Base, select the "Pair with Base connected to this program" radio button.

You can pair the Mobile Module with a different Base providing the desired Base has been connected to this Setup Program. Select the "Pair with another Base" radio button and then press the "Select Base" button. A list of Bases that have been identified by this Setup Program will be displayed.

Parameter Transfer

When you have the parameters set to the desired values, they must be sent to the Mobile Module. Be sure the Mobile Module is in the Setup Mode and then press the "Send Setup to Mobile Module" button. Remember that the Mobile Module will automatically shut down after 60 seconds (15 seconds for the Mini Mobile Module) of no activity. After the parameters are sent to the Mobile Module, the Setup Program will reread and display the parameters currently in the Mobile Module.

9.1.1 Gage Output Type
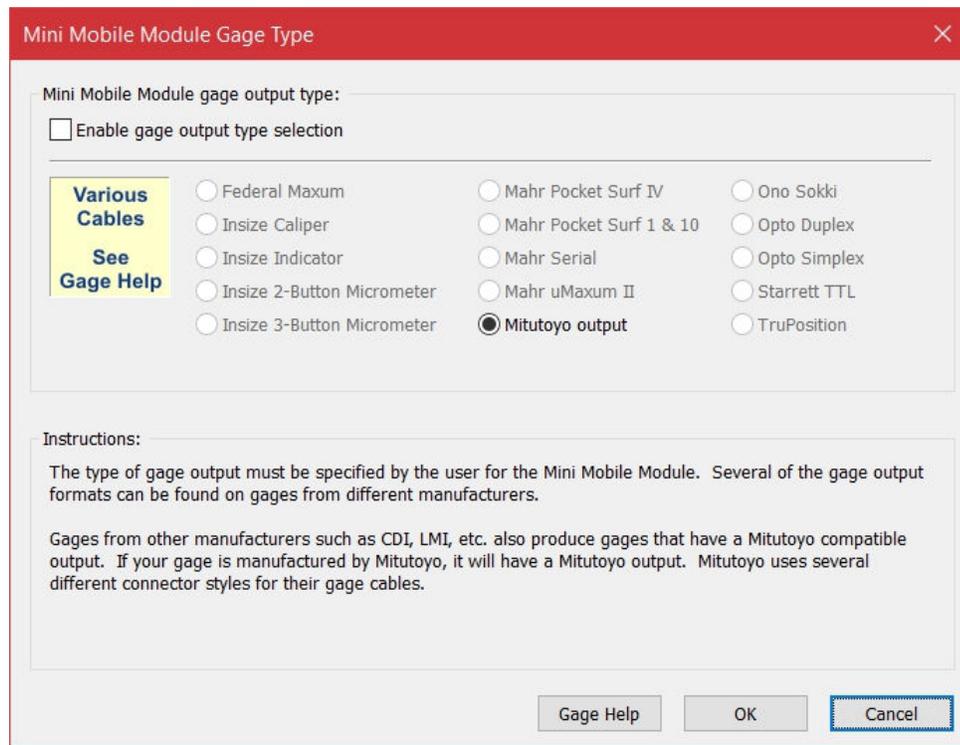
The Mini Mobile Module requires the user to defined the gage cable output type. When a Mini Mobile Module is shipped from the factory, it is configured for the gage cable attached to the module. The only time a you may need to select a different gage output type is when you change from one brand of gage to another.

Example 1   You have been using the Mini Mobile Module with a Mitutoyo caliper and you now want to use the Mini Mobile Module with a Mahr uMaxum II. You will need to get the uMaxum II cable from MicroRidge and select the Mahr uMaxum II gage in the above dialog.

Example 2   You have been using the Mini Mobile Module with a Mitutoyo caliper and you now want to use the Mini Mobile Module with a Mitutoyo Digital Indicator. You will need to get the appropriate gage cable from MicroRidge, but you do not have to change the gage output type. All of the Mitutoyo gage use the same output format.

Most of the gage output types can be identified by comparing the gage cable connector with the pictures in the Mini Mobile Module Gage Type dialog. Since Mitutoyo has a wide range of connectors used with its gages, it is not reasonable to show all of the possible gage cable connectors. When you purchase a replacement Mini Mobile Module gage cable, the gage output type will be clearly identified with the replacement cable.

9.2   Command Mobile Module

The operation of a Command Mobile Module is very similar to a Digital Mobile Module. The additional functionality of the Command Mobile Module allows you to send read and configuration commands from a Base to the Command Mobile Module. When a Command Mobile Module is shipped from MicroRidge, the command function is enabled. To enable or disable the command function, click the Command button to display the following dialog.
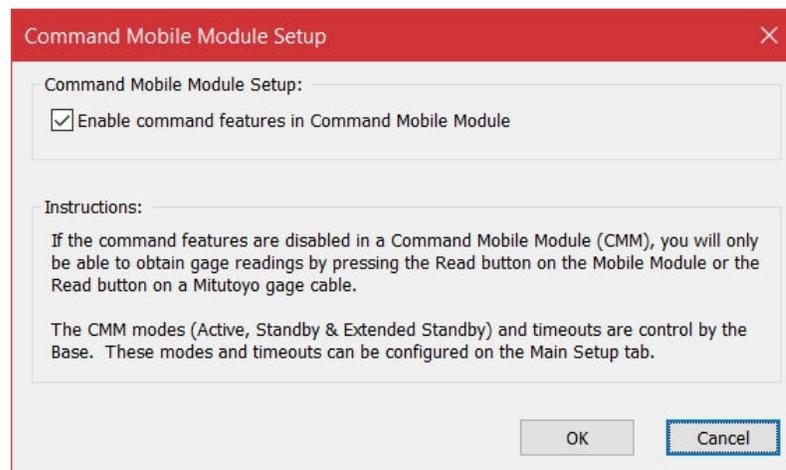
Refer to the Hardware Components User's Guide (Command Mobile Module section in the Mobile Modules chapter) for additional details about the Command Mobile Module

9.3   RS-232 Mobile Module

Setup for RS-232 Devices	✕

Gage selection:

User defined configuration parameters. (Gage Cable ID = 8-250)   ▽

Module setup:

Baud rate   `9600` ▽   Communication parameters   `N-8-1` ▽   End-of-packet character   `CR` ▽

◯ Press read button on Mobile Module & send command   `_____`   to serial device (maximum 8 characters)

⦿ Press send button on serial device

⦿ Leave Mobile Module on after measurement   ◯ Turn Mobile Module off after measurement

Turn Mobile Module off after   `3`   minutes of inactivity   (LEDs flash every second when on)

☐ Keep serial port output lines active when Mobile Module is on   (Caution: This option may significantly shorten battery life)

Data parsing:

☐ Match string   `_____`   ◯ Process if match found   ◯ Discard if match found

☐ Character positions   `1`   to   `30`

☑ Find first numeric field   ☑ Decimal point required in numeric field   (A numeric field must be at least 3 characters in length)

Description:

User defined RS-232 setup. This is a basic RS-232 setup and can be used with most serial devices.

You must select the baud and communication parameters required by your serial device. If you are using the read button on the Mobile Module, you must also specify the command to be sent to your serial device.

If your serial device requires handshake line control or uses the Mobile Module transmit line as a power source, you must use a different "Gage setup".

       `OK`

       `Cancel`

The setup of the RS-232 Mobile Module is very similar to the Digital Mobile Module setup. For most RS-232 devices, you will need to configure the RS-232 Mobile Module through the dialog shown above. The type and the format of the data sent from serial devices can vary widely. You may need to refer to the manual for your serial device to determine items such as baud rate, communication parameters, data format, end-of-packet character and how to get a reading from the serial device. If you have a cable that allows you to connect your serial device to a PC serial port, you may find it useful to use ComTestSerial [49] to verify the operation of your serial device.

If your gage uses the Sylvac Proximity cable shown below, the various parameters are automatically set and this dialog is not required. This Proximity cable can be found on gages such as calipers and digital indicators from manufacturers such as Sylvac, Fowler, Starrett, etc.

Due to the voltage level requirements of this cable, gages that use this cable can only be used with the RS-232 Mobile Module.

RS-232 Setup

To set up the RS-232 Mobile Module follow the procedures in the Mobile Module Setup [29] section. After the Configure MobileCollect RS-232 Mobile Module dialog appears, press the RS-232 Setup button to display the dialog shown above. You must have an appropriate RS-232 cable connected to the Mobile Module before you will be able to access this dialog.

In order to complete the setup, you will need to have the following information. This information can vary widely from device to device. You may need to refer to your device manual for this information.

- What is the baud rate of your serial device?

- What are the required communication parameters?

- How is the end of a data packet identified? Most often this will be a carriage return or a line feed.

- How do you get a reading from your serial device? Do you press a send button on the device or do you need to send a command to the device? If you need to send a command to the device, you will need to enter the command. If you need a carriage return in the command, enter {CR}.

- If you are pressing a send button on your serial device, how long should the Mobile Module remain on after receiving a reading?

- Some devices need to be powered by the Mobile Module. If your device requires active handshake lines, check the "Keep serial port output lines active" checkbox.

- Depending upon the format of the data being sent from your serial device, you may need to do some data parsing before sending the reading to the Base.

Testing Your Serial Device with a PC

The easiest way to verify the required serial parameters is to connect your serial device to a serial port on your PC. In order to connect your serial device to your PC, you will need a PC compatible serial cable.

With the device connected to your PC, you can use [ComTestSerial](#) [49] to verify communications and the parameters required for your serial device.

10   RS-232 Remote Setup Tabs

An RS-232 Remote is set up with the Main Setup, RS-232 Remote Setup, and the 3 Parse tabs.
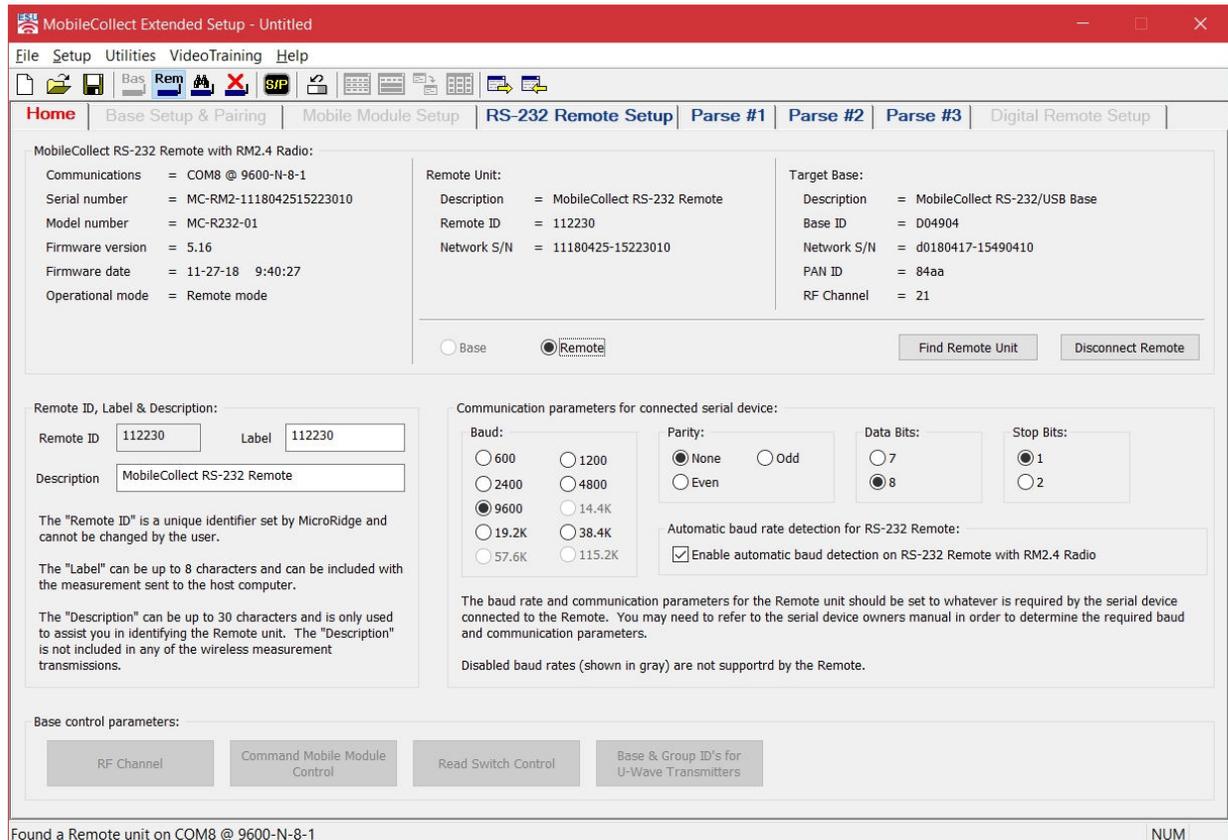
Before you can set up a Remote, you must know the following about the serial device that will be connected to the Remote.

- What is the baud rate of your serial device (ie: 4800, 9600, etc.)?

- What are the communication parameters of your serial device (ie: N-8-1, E-7-1, etc.)?

- What does the data packet from your serial device look like?

- What is the end-of-packet character?

- Do you need to send a command to the device in order to get a data packet?

- What portion of this data packet do you want to send from the Remote to the Base?

If you connect your serial device to a serial port on your PC, you can use ComTestSerial [49] to view the data packet and determine the end-of-packet character coming from your serial device. If you do not know the baud and communication parameters, you should refer to your serial device manual. If you need to send a command to the serial device in order to get a data packet,

---

refer to your serial device manual for the specific command to be used. The serial device manual referenced in this paragraph is the manual supplied by the serial device manufacturer.

Once you have determined the above information, you should connect the Remote to your PC and find it with the Setup Program. Start on the Main Setup tab and set the Description and Serial communication parameters as necessary.

10.1 Setting Up the Remote

There are specific steps you must preform in order to properly set up a RS-232 Remote so that is can send data to a Base.

- Select the Main Setup tab [15], and click the **Rem** toolbar button.

- Press the *Find Remote Unit* button or the toolbar button.

- Go to the RS-232 Remote Setup tab [41] and the 3 Parse tabs to configure the RS-232 Remote for the data that will be sent from your serial device. You might want to use ComTestSerial [49] so that you can verify the baud rate, communication parameters and determine exactly what the serial device is sending.

- Pair the RS-232 Remote with the Base that will be receiving the data being sent from the RS-232 Remote. In order to pair the RS-232 Remote with a Base, the Base must have previously been found by the Extended Setup Program. Click the *Get Base* button on the RS-232 Remote Setup Tab to get a listing of the available Bases. Select the Base you want to pair with the RS-232 Remote.

- Send the RS-232 Remote setup parameters to the RS-232 Remote. These parameters are not automatically transferred to the RS-232 Remote. To send the parameters to the RS-232 Remote, press the toolbar button. These parameters can also be save to a disk file.

- Select the Main Setup tab and click the *Disconnect* button.

- We are done setting up the RS-232 Remote and will now configure the Base connected to your PC.

- Click the **Bas** toolbar button.

- Press the *Find Base Unit* button or the toolbar button.

- Select the Base Setup tab [23].

- In order for the Base to receive data from a RS-232 Remote, the RS-232 Remote ID must be assigned to a channel in the Module ID column.

- Click in the Module Type column for the channel you want to use for the RS-232 Remote and then press an R on the keyboard. The word RS-232 Rem should appear in the column

- Next enter the RS-232 Remote ID in the Module ID column. You can enter this 6 character ID manually or you can right-click on the Module ID cell. When you right-click, a dialog will

display a list of the RS-232 Remotes that have been found by the Setup program. Select the RS-232 Remote you want paired with the channel.

▪ Send the Base setup parameters to the Base. These parameters are not automatically transferred to the Base. To send the parameters to the Base, press the 🖼️ toolbar button. These parameters can also be save to a disk file.

10.2 Remote Setup Tab

The Remote Setup tab is used to select the target Base, how to identify a data packet, read switch operation and enable parsing setups. The Remote works on data packets and you must indicate how the Remote will determine when it has a data packet. The most common situation is that the data received from a serial device is terminated with a carriage return.

10.3 Parsing Tabs

If you need to use the parsing tabs, it is very important that you have a copy of the type of data sent from your serial device and what you want the results of the parsing to look like. You should use [ComTestSerial](#)[49] to determine the exact format of the data being sent from your serial device.
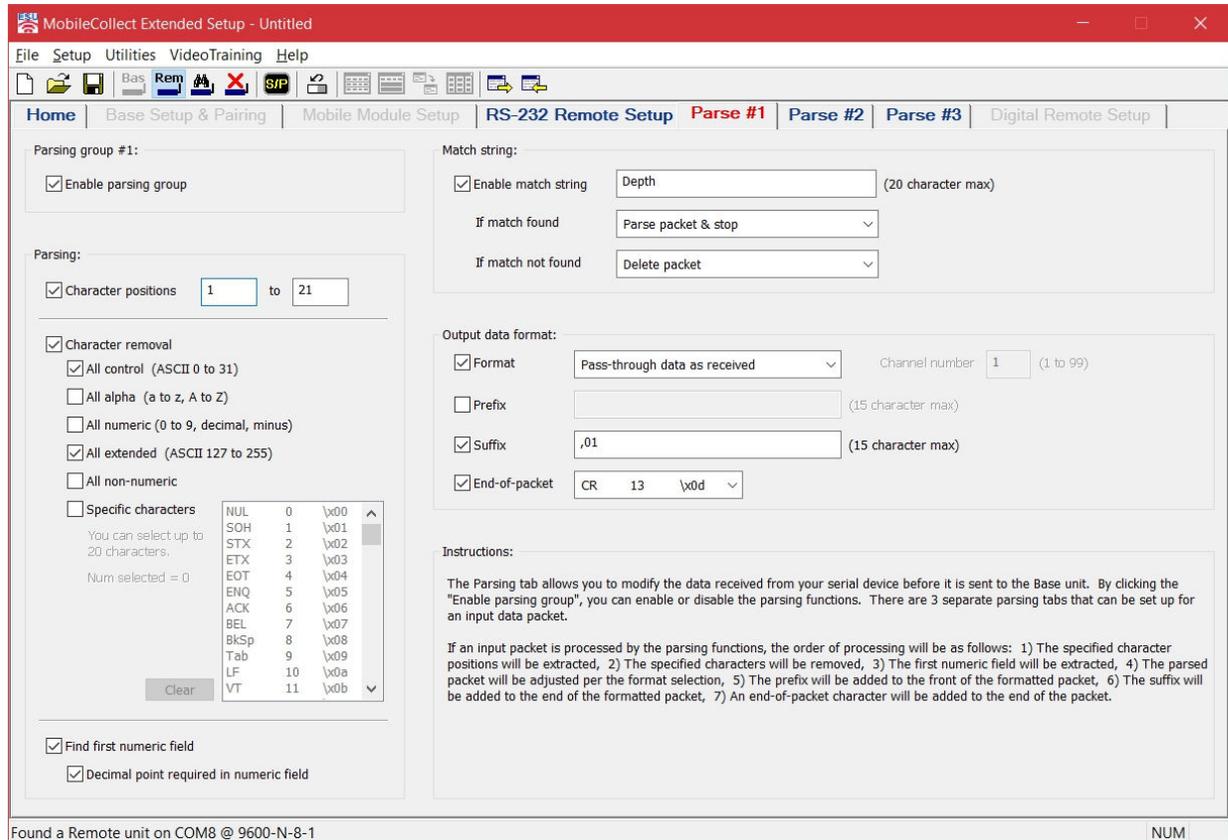
The parsing tasks are performed in the following order.

- The parsing functions will only be performed if the parsing group is enabled.

- If the match string is enabled, the Remote will look for a match and proceed per the selections in the match found and match not found selections. If the match is disabled, parsing will proceed to the next step.

- The specified character positions will be extracted if character positions are enabled.

- The specified characters will be removed if character removal options are selected.

- The first numeric field will be extracted if this item is enabled. If enabled and no numeric field is located, parsing will stop, the packet discarded and no data will be sent from the Remote. A numeric field is defined as follows:

   o Minimum length = 3 characters.

   o May contain a decimal point (based on user selection).

   o First character can be a space, plus, minus, decimal or 0 to 9.

- The packet is formatted per the format selection. If format is not enabled, the parsed packet will not be modified any further and passed to the next step.

   o The Mitutoyo MUX10 format consists of a channel number, the letter A and the measurement (ie: 01A+001.1785). This is a fixed format string and will always be 12 characters long.

   o The GagePort printer mode consists of a measurement counter, the measurement, a units field and a channel number (ie: 2374,   1.1785,inch ,01). Since the Remote cannot determine the units for the measurement, the measurement field will always be 5 blanks. This is a fixed format string and will always be 24 characters long.

- A prefix is added to the string if specified.

- A suffix is added to the string if specified.

- An end-of-packet character is added if specified.

10.4 Entering Control & Extended Characters

Control and extended characters can be entered into the Match, Prefix and Suffix fields. Control characters are characters less than ASCII 32 and include such characters as Escape, Backspace, Linefeed, Carriage return, Enter, etc. Extended characters are characters greater than ASCII 126. To enter these characters in the Match, Prefix or Suffix fields, the appropriate character code must be entered within brackets. The information between the brackets can be the hex representation or the 2 to 4 character description for the control characters. A list of the hex values and character descriptions is shown on the main ComTestSerial [49] window. Examples of several of these characters is shown below.

Carriage return   = {\x0d} or {CR}

Tab   = {\x09} or {TAB}

ASCII 137   = {\x89}

11   Digital Remote Setup Tab

A Digital Remote is set up with the Main Setup and the Digital Remote Setup tabs.
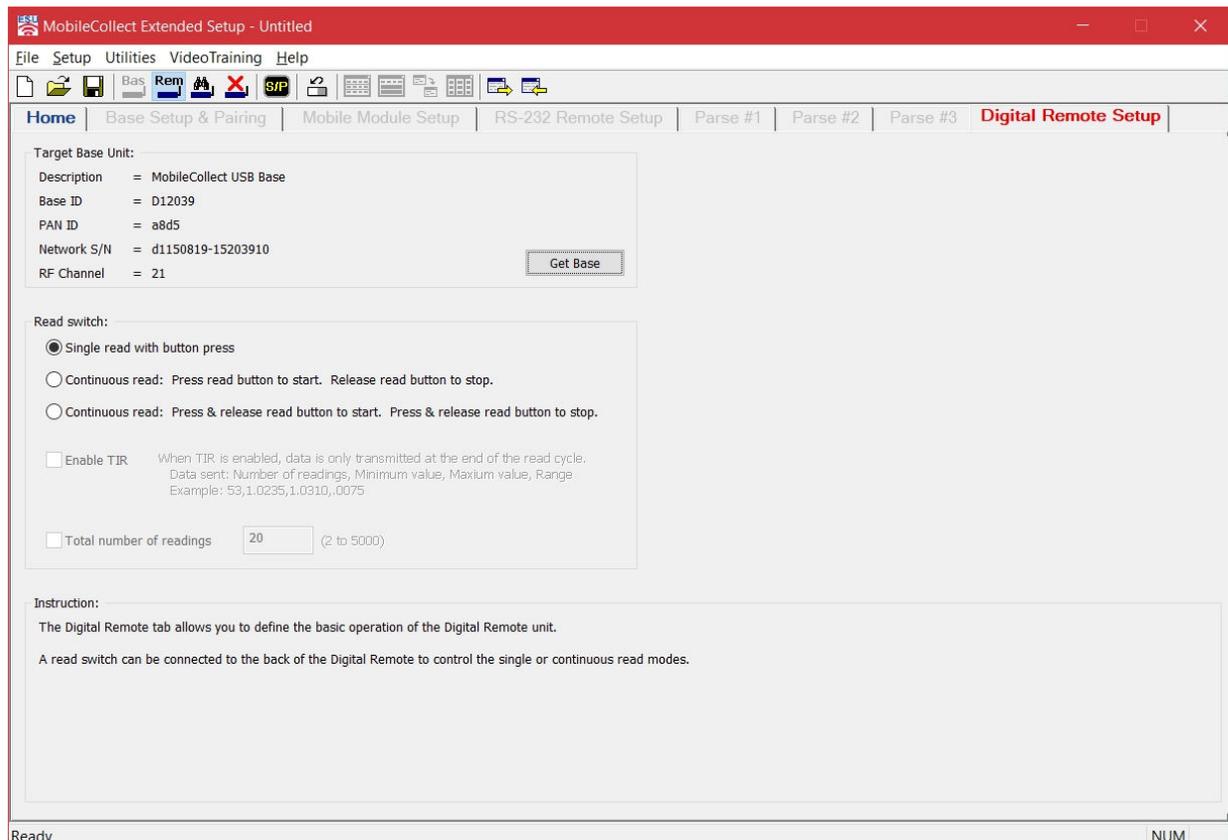
The Digital Remote supports gages with Mitutoyo compatible output, Ono Sokki, Federal Maxum and INSIZE indicators. The Digital Remote automatically determines the type of gage connected when the reset button is pressed. The read switch settings on this tab are used when you have a foot or hand switch connected to the read switch port on the back of the Remote.

There are specific steps you must preform in order to properly set up a Digital Remote so that is can send data to a Base.

- Select the <ins>Main Setup tab</ins> ¹⁵, and click the ![Rem] toolbar button.

- Press the *Find Remote Unit* button or the ![binoculars] toolbar button.

- Go to the Digital Remote Setup tab configure the Digital Remote.

- Pair the Digital Remote with the Base that will be receiving the data being sent from the Digital Remote. In order to pair the Digital Remote with a Base, the Base must have previously been found by the Extended Setup Program. Click the *Get Base* button on the

Digital Remote Setup Tab to get a listing of the available Bases. Select the Base you want to pair with the Remote.

- Send the Digital Remote setup parameters to the Digital Remote. These parameters are not automatically transferred to the Digital Remote. To send the parameters to the Digital Remote, press the ⊞➔ toolbar button. These parameters can also be save to a disk file.

- Select the Main Setup tab and click the *Disconnect* button.

- We are done setting up the Digital Remote and will now configure the Base connected to your PC.

- Click the ⊞ **Bas** toolbar button.

- Press the *Find Base Unit* button or the 🔍 toolbar button.

- Select the Base Setup tab [23].

- In order for the Base to receive data from a Digital Remote, the Digital Remote ID must be assigned to a channel in the Module ID column.

- Click in the Module Type column for the channel you want to use for the Digital Remote and then press an D on the keyboard. The word Digital Rem should appear in the column

- Next enter the Digital Remote ID in the Module ID column. You can enter this 6 character ID manually or you can right-click on the Module ID cell. When you right-click, a dialog will display a list of the Digital Remotes that have been found by the Setup program. Select the Digital Remote you want paired with the channel.

- Send the Base setup parameters to the Base. These parameters are not automatically transferred to the Base. To send the parameters to the Base, press the ⊞➔ toolbar button. These parameters can also be save to a disk file.

12 Utilities

The following utilities that can be accessed directly from the Extended Setup Program main menu.

RF Channel Sniffer	The Channel Sniffer allows you to view the level of wireless activity occurring on each of the MobileCollect channels. Typically, this utility is only used if you are concerned about excessive RF traffic on a channel. The transmit time for a MobileCollect measurement packet is so small (about 20 msec) that we have had no reports of MobileCollect interfering with other wireless systems. A test was ran by an aerospace company using specialized monitoring equipment to see what affect MobileCollect had upon channel usage. Since the MobileCollect transmit times are so short, the test was unable to detect any channel usage by MobileCollect.
ComTestSerial	ComTestSerial is a free serial communications test program developed by MicroRidge Systems. ComTestSerial is easy to use and is often need by the user to help them understand what is being sent from MobileCollect to a PC. MicroRidge does not provide support to any customer that is trying use the Microsoft HyperTerminal product.

12.1 RF Channel Sniffer

The MobileCollect RF Channel Sniffer allows you to determine the amount of RF activity occurring on each of the RF channels that can be used by MobileCollect. The Sniffer takes 500 RF measurements on a channel and determines for each measurement if there was any RF activity. After the RF measurements are taken on a channel, the Sniffer moves to the next channel and repeats the process. It takes approximately .096 seconds (96 msec) to capture the 500 RF measurements on a channel. The total time to scan all 16 channels is about 1.6 seconds. The RF Channel Sniffer does not use or communicate with Mobile Modules.

The Sniffer is only compatible with the following base units:

- MobileCollect USB Base

- MobileCollect MicroBase

- MobileCollect RS-232 Base

MobileCollect operates in the 2.45 GHz Industrial, Scientific and Medical (ISM) radio band. This frequency is also used by other wireless equipment such as WiFi. If you are not using other 2.45 GHz equipment in your facility, you would not need to use the Sniffer to determine the best channels to use. However, if you have other wireless systems operating in the 2.45 GHz band, it is a good idea to run the Sniffer to determine the activity levels on the available channels.

Refer to the MobileCollect RF Sniffer User's Guide for a full description of this program.

MobileCollect RF Channel Sniffer -- COM8 @ 9600-N-8-1

	Channel	Frequency Midpoint, GHz	Total Meas	Sample Periods	Total Time, hr:min:sec	Active Time, hr:min:sec	Active Time, Percent	Total Time for Each Channel Utilization Range, hr:min:sec or seconds							
								0.0 to 1.0 %	1.1 to 3.0 %	3.1 to 5.0 %	5.1 to 10.0 %	10.1 to 25.0 %	25.1 to 50.0 %	50.1 to 75.0 %	75.1 to 100.0 %
1	11	2.405	1,616,000	3,232	4:28	0:05	1.7%	3:13	0:13	0:09	0:51	0:02			
2	12	2.410	1,616,000	3,232	4:28	0:07	2.4%	3:16	0:08	0:05	0:29	0:30			
3	13	2.415	1,616,000	3,232	4:28	0:05	1.9%	2:59	0:23	0:12	0:51	0:03			
4	14	2.420	1,616,000	3,232	4:28	0:14	5.2%	0:45	0:10	2:22	0:26	0:45	.9 sec	.1 sec	
5	15	2.425	1,616,000	3,232	4:28	0:12	4.5%	0:35	0:11	2:40	0:33	0:27	1.0 sec		
6	16	2.430	1,616,000	3,232	4:28	0:11	4.3%	0:38	0:10	2:48	0:39	0:12	1.2 sec		
7	17	2.435	1,616,000	3,232	4:28	0:10	3.6%	1:24	0:18	1:47	0:39	0:20	.3 sec	.1 sec	
8	18	2.440	1,616,000	3,232	4:28	0:07	2.7%	3:04	0:13	0:10	0:28	0:33			
9	19	2.445	1,615,500	3,231	4:28	0:04	1.5%	3:23	0:12	0:05	0:46	1.4 sec			
10	20	2.450	1,615,500	3,231	4:28	0:07	2.5%	3:23	0:06	0:04	0:16	0:38			
11	21	2.455	1,615,500	3,231	4:28	0:04	1.4%	3:29	0:09	0:05	0:45	.2 sec			
12	22	2.460	1,615,500	3,231	4:28	0:04	1.6%	3:19	0:16	0:13	0:29	0:12			
13	23	2.465	1,615,500	3,231	4:28	0:06	2.1%	2:51	0:23	0:13	0:54	0:06			
14	24	2.470	1,615,500	3,231	4:28	0:07	2.6%	3:05	0:04	0:04	0:53	0:22	.4 sec		
15	25	2.475	1,615,000	3,230	4:28	0:04	1.6%	3:26	0:05	0:05	0:49	0:02	.3 sec		
16	26	2.480	1,615,000	3,230	4:28	.8 sec	.3%	4:09	0:19	.2 sec					

Summary information:

Avg sample size	=	500.0 measurements
Avg sample period	=	.0828 seconds
Test start date	=	7-21-2020
Test start time	=	11:18:32 AM
Test duration	=	1:12:34 hr:min:sec

Color codes:

= Last channel updated

= Last cell modified for channel

= Excellent channel for MobileCollect

= Acceptable channel for MobileCollect

Time formats:

Several time formats are used to display the time intervals. These consists of hours:minutes:seconds (1:45:15), minutes:seconds (12:03) and seconds (1.3 sec). The seconds format is only used for time intervals less than 2.0 seconds.

About   Print   Serial Port

Help   Start   Clear   Close

12.2 ComTestSerial

A serial communications test program is included on the Product Resources DVD and will be installed when you install the Setup Program. ComTestSerial can be started directly from the Extended Setup Program by pressing the "Load ComTestSerial" button (**S/P**).

ComTestSerial can be loaded on as many computers as required. To install ComTestSerial on other computers, select the ComTestSerial installation option on the CD. ComTestSerial is designed for use on Windows XP and later.
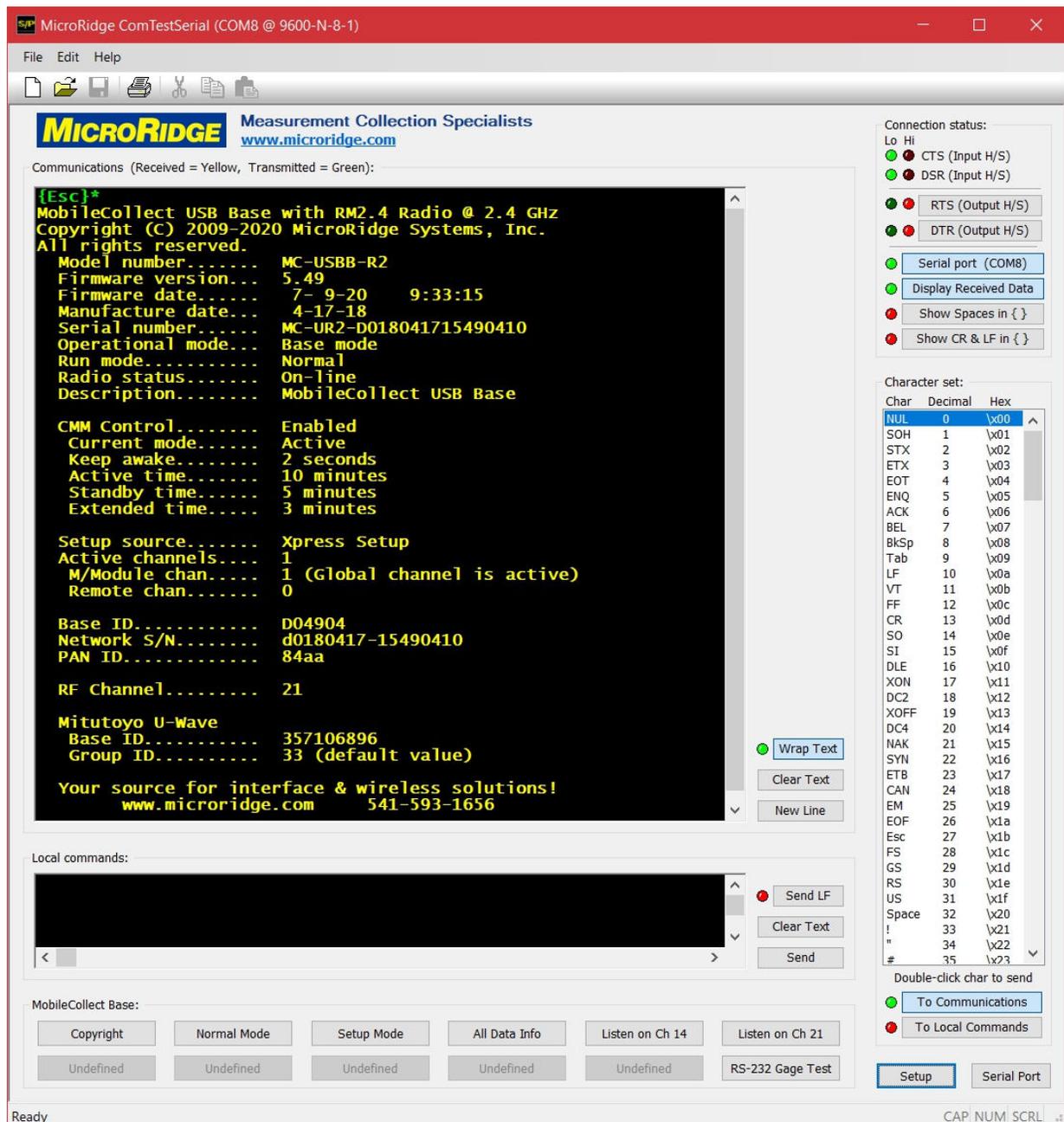
13 MobileCollect Documentation

The MobileCollect product line includes numerous items such as multiple transmitters, multiple receivers, support for 3rd party transmitters, setup programs, RF Sniffer software and a lot of documentation. To make the information you are looking for easier to locate, the documentation has been broken up by subject. Much of the documentation is available in 2 different forms:

PDF User's Guide's	These are detailed User's Guides in PDF documents.
Tech Notes	These are tech notes covering a specific item such a 3rd party transmitter supported by MobileCollect. The Tech Notes are available as PDF Documents and HTML Help Files.
HTML Help Files	These are files with a .chm extension and are typically used as the Help files that are accessed from a PC application.

Both the PDF and HTML Help documents show above contain the same information. If you want to print one of the documents, you would print the PDF version. You can print the HTML Help Files; however, this must be done 1 page at a time.

The links for the documents show below will only work if the document you want to view is located in the same folder as the current document. When the Sxtended Setup program is installed on your PC, all of the available document are installed in the same folder.

PDF User's Guides

[MobileCollect Hardware Components User's Guide](#)	Describes the various hardware components, computer commands, serial communications test program (ComTestSerial), wireless communications, etc.
[MobileCollect Extended Setup User's Guide](#)	This is the information you are currently looking at.
MobileCollect Xpress Setup User's Guide	This is a setup program that provides fewer setup options than the Extended Setup Program. This document is not installed when Extended Setup is installed.
[MobileCollect RF Sniffer User's Guide](#)	The MobileCollect RF Channel Sniffer allows you to determine the amount of RF communications occurring on each of the RF channels that can be used by MobileCollect. This program is very useful in identifying RF channels that can provide better reliability for MobileCollect wireless. One of the MobileCollect Bases is used in conjunction with this program.

PDF Tech Notes

Using CDI Indicator with MobileCollect

This Tech Note describes the use for the CDI CORE and VRS Indicators with Mobile Collect. When purchasing these indicators, they must be ordered with the MicroRidge long range radio option.

Using Mitutoyo U-Wave with MobileCollect

Since Mobile Collect and U-Wave both use the ZigBee Wireless Protocol, it is possible to pair U-Wave Transmitters to MobileCollect Bases. This Tech Note describes how to use U-Wave Transmitters with MobileCollect Bases.

HTML Help Files

The HTML Help Files that are installed with Xpress Setup are listed below. These HTML Help Files cannot be accessed from this PDF Document. This is a security restriction imposed by Microsoft.

MobileCollect Hardware Components

MobileCollect Extended Setup

MobileCollect RF Sniffer

Using CDI Indicator with MobileCollect

Using Mitutoyo U-Wave with MobileCollect

14 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.

15   Contact MicroRidge

Email:

Support:	support@microridge.com
Sales:	sales@microridge.com
Information:	info@microridge.com

Phone:

Support:	541.593.1656
Sales:	541.593.3500
Main office:	541.593.1656
Fax:	541.593.5652

Mailing Address:

MicroRidge Systems, Inc.
PO Box 3249
Sunriver, OR 97707-0249

Shipping Address:

MicroRidge Systems, Inc.
56888 Enterprise Drive #3249
Sunriver, OR 97707

Note: There is no mail delivery to this address. This address should only be used for UPS and FedEx package delivery services. DHL does not deliver to this area in Oregon.

Web: www.microridge.com

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