

MicroRidge MobileCollect EVO API

This API is intended for SPC/Quality Control Software to enable basic setup and configuration of a MobileCollect System within the host software.

Advanced setup will still need to take place in MobileCollect Xpress or MobileCollect Extended Setup software. There are currently two setup configuration files that the MobileCollect Base utilizes; Xpress Setup and Extended Setup. The base only utilizes one configuration file at a time, either Xpress or Extended. This API is based off the Xpress Setup configuration file and thus parameters set with the API will be visible in Xpress Setup.** For advanced configuration, have users go to Xpress Setup unless they are configuring a Remote Transmitter, Command Mobile Module, read switch, or need additional Channels. If they have these advanced setup needs, they will need to use Extended Setup and parameters set with the API will not display.

We have downloadable executables and user manuals on our website for both Xpress and Extended Setup.

*** The API offers additional flexibility over Xpress Setup and some parameters may not show exactly as they we're setup via the API. This may lead users to change settings in Xpress and those settings will have to be reconfigured via the API*

Supported MobileCollect Bases

- All MobileCollect EVO Base Models will have API support. Model ID
 - **Wedge Base EVO:** MC-BK306-A
 - **RS-232 Base EVO:** MC-BR306-A
 - **USB Base EVO:** MC-BU306-A
 - **MicroBase EVO USB A & USB C:** MC-BM306-A
- Users must have firmware 6.20 or higher to utilize the API
 - All EVO bases will ship with Firmware 6.20 or newer and have API support.
- To check the base model and firmware version to confirm API support:
 - <V Version Serial Command
 - Base Model Number, Firmware Version
 - Example Output: MC-BK306-A, 6.20
 - <\$A:BMN Model API command (Firmware 6.28+)
 - Example Output: MC-BK306-A{CR}MBLAPI_SUCCESS{CR}<\$A:BMN
 - <\$A:BFV Firmware Version API command (Firmware 6.28+)
 - Example Output: 6.28{CR}MBLAPI_SUCCESS{CR}<\$A:BFV

API Commands

- Case sensitive, you must use uppercase for all commands.
- Communication is done through a Virtual Com Port.
 - We recommend downloading MicroRidge ComTestSerial to get a feel for how the API communicates. This will allow you to send the API commands without writing any code to test the functionality.
- User will see API Confirmation LED blink sequence

- Red LED on for 1 second
 - Yellow LED blink twice for 250ms while Red LED remains illuminated.
 - Total blink sequence duration = 1 second.
- API Confirmation gets sent back to host device (computer) at the end of every successful API call
 - Carriage Return (\x0d)
 - MBLAPI_SUCCESS
 - Carriage Return (\x0d)
 - Command Host Computer Sent (Example: <\$A:ICLA)
 - Carriage Return (\x0d)

<\$A:Cn Mobile Module Pairing Mode

- This command puts the base into pairing mode. The user then goes through the pairing process on their transmitter to complete the pairing. This is the same process that is used today with Xpress Setup and Extended Setup.
- When the command is sent, you'll see the bottom right green LED on the full size base blink and the green LED on the MicroBase blink.
- The user needs to go through the following pairing procedure on the Mobile Module.
 - Put the Mobile Module into the Setup Mode.
 - 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 on the Mobile Module.
 - 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.
 - Press and release the Setup Button on the Mobile Module.
 - You will see a sequence of LED flashes on the base and Mobile Module, then the Mobile Module LED's will turn off and the base LED's will stop flashing and illuminate the solid green power LED.
- n value is used to set the channel
 - * = Global Channel
 - A = Channel 1
 - B = Channel 2
 - C = Channel 3
 - D = Channel 4
 - E = Channel 5
 - F = Channel 6
 - G = Channel 7
 - H = Channel 8
 - I = Channel 9
 - J = Channel 10
 - K = Channel 11
 - L = Channel 12

- M = Channel 13
- N = Channel 14
- O = Channel 15

<\$A:C0 Disable Mobile Module Pairing Mode

- This command disables pairing mode and puts the base back into normal mode where it can accept measurements. This is useful if a user puts the device into pairing mode and doesn't pair a transmitter. One application of this command could be to utilize it with a timer. For example, if the user doesn't pair in x seconds, disable pairing mode and put base back into normal mode.
- Bottom right green power LED on the full size base and green LED on MicroBase will stop blinking and remain solid.

<\$A:Dn Remove Mobile Module Pairing on Channel n

- Removes pairing of a mobile module on a specified channel. This will effectively take the Mobile Module out of Individual Channel pairing and move it to Global Channel pairing.

<\$A:OFxn Set Measurement Output Format

- This sets the measurement output format for either all of the individual channels and/or the global channel.
- Be aware that the API allows additional flexibility over Xpress Setup and if a user loads the configuration into Xpress Setup they may not see the measurement output format set by the API.
 - This will be common when setting it to "All Data" as this option is not supported in Xpress Setup.
 - It is recommended to have the host software verify the correct measurement output format is coming in. If the host software is not getting the correct measurement output format desired, send the command to change it back to the desired format.
- x sets the measurement output format for either the global channel or all the individual channels.
 - I = Individual Channels
 - G = Global Channel
- n sets the measurement output format. Bold Are Supported by Xpress Setup Individual Channels and underlined are supported by Xpress Global Channel
 - A = Major Data = Measurement, Chan, Module ID, Units, Battery, Signal, Attempts
 - B = Measurement, Module ID
 - C = Measurement, Gage Channel
 - D = Gage Channel, Measurement
 - E = Measurement (left-justified), Chan, Module ID, Units, Battery, Signal, Attempts
 - F = Measurement (left-justified), Module ID
 - **G = Measurement (left-justified)**
 - **H = Module ID, Measurement (left-justified)**
 - **I = Module Label, Measurement (left-justified)**
 - **J = Gage Channel, Meas (left-justified)**

- **K = GagePort printer mode**
- **L = Mitutoyo MIG**
- **M = Mitutoyo MUX10**
- **N = Measurement, Gage Channel (left-justified)**
- **O = U-Wave**
- **P = Module ID, Measurement, Channel**
- **Q = Query Mode (See Below)**
- **R = All Data (Measurement, Chan #, Chan Letter, Module ID, Base ID, Module Label, Units, Battery Voltage, Signal Strength, Send Attempts, Event #, Read Gap (msec))**
- n = Q: Query will respond with the following (x: I = Individual Channels G = Global Channel)
 - MBLAPI_OFx_A
 - A = Major Data = Measurement, Chan, Module ID, Units, Battery, Signal, Attempts
 - MBLAPI_OFx_B
 - B = Measurement, Module ID
 - MBLAPI_OFx_C
 - C = Measurement, Gage Channel
 - MBLAPI_OFx_D
 - D = Gage Channel, Measurement
 - MBLAPI_OFx_E
 - E = Measurement (left-justified), Chan, Module ID, Units, Battery, Signal, Attempts
 - MBLAPI_OFx_F
 - F = Measurement (left-justified), Module ID
 - MBLAPI_OFx_G
 - G = Measurement (left-justified)
 - MBLAPI_OFx_H
 - H = Module ID, Measurement (left-justified)
 - MBLAPI_OFx_I
 - I = Module Label, Measurement (left-justified)
 - MBLAPI_OFx_J
 - J = Gage Channel, Meas (left-justified)
 - MBLAPI_OFx_K
 - K = GagePort printer mode
 - MBLAPI_OFx_L
 - L = Mitutoyo MIG
 - MBLAPI_OFx_M
 - M = Mitutoyo MUX10
 - MBLAPI_OFx_N
 - N = Measurement, Gage Channel (left-justified)
 - MBLAPI_OFx_O
 - O = U-Wave
 - MBLAPI_OFx_P

- P = Module ID, Measurement, Channel
- MBLAPI_OFx_R
 - R = All Data (Measurement, Chan #, Chan Letter, Module ID, Base ID, Module Label, Units, Battery Voltage, Signal Strength, Send Attempts, Event #, Read Gap (msec))
- MBLAPI_OFx_DEFAULT
 - Measurement Only Left Justified

<\$A:ICLA List Gage Channel Status

- This command sends back the status of each gage channel. This is used to determine what Mobile Modules are paired on what channels.
 - Gage Channel, Module Type, Module ID, Module Label, GageSync / TriggerSync
 - Gage Channel = A-O
 - Module Type
 - Mini Mobile Module M3 (Legacy) = \x03 (Char = ETX)
 - Mini Mobile Module EVO M3E = \x14 (Char = DC4)
 - Command Mobile Module = \x06 (Char = ACK)
 - RS-232 V2 Mobile Module = \x07 (Char = BEL)
 - None = \xfa
 - Module ID
 - This is a static, non editable parameter of the Mobile Module
 - Module Label
 - This is a text field that can be edited in Xpress or Extended setup. It allows for custom label between 1 – 8 characters.
 - Note: If the user changes this you may need to send the Measurement Output Format Command as the measurement output format may be changed.
 - GageSync / TriggerSync
 - GS = GageSync is enabled
 - TS = TriggerSync is enabled
 - -- = GageSync / TriggerSync is not enabled

<\$A:OMn Change MicroBase EVO Output Mode

- This command gives you the ability to change and query the output mode of the MicroBase EVO.
 - n sets the MicroBase EVO to Wedge, Serial or Queries the output mode.
 - W = Wedge Mode
 - S = Serial Mode
 - Q = Query (works with Full-Size Wedge Base)
 - Serial Mode Responds with MBLAPI_SERIAL
 - Wedge Mode Responds with MBLAPI_WEDGE
 - When sending commands to Full-Size Bases where you cannot change the output mode via the API

- W & S will respond as follows for Full-Size Bases
 - USB Base = MBLAPI_USB_BASE_NO_WEDGE
 - RS-232 Base = MBLAPI_RS-232_BASE_NO_WEDGE
 - Wedge Base = MBLAPI_SLIDE_SWITCH
 - Output mode is changed via hardware slide switch on back of base.
- Q will respond as follows for Full-Size Bases
 - USB Base = MBLAPI_USB_BASE_NO_WEDGE
 - RS-232 Base = MBLAPI_RS-232_BASE_NO_WEDGE
 - Wedge Base
 - Serial Mode Responds with MBLAPI_SERIAL
 - Wedge Mode Responds with MBLAPI_WEDGE

<\$A:NFXn Measurement Output Format

- This command gives you the ability to set the measurement output format. You must set both x & n to successfully execute this command.
 - x sets the number format from United States “1.234” to European “1,234”
 - . = United States “1.234”
 - , = European “1,234”
 - n enables or disables the leading zero on a measurement.
 - E = Enables Leading Zero
 - D = Disables Leading Zero
 - Q = Query (<\$A:NFQ)
 - MBLAPI_xn
 - x = number format
 - . = United States “1.234”
 - , = European “1,234”
 - n = leading zero
 - E = Leading Zero Enabled
 - D = Leading Zero Disabled

<\$A:USBn USB Serial Send Mode

- This command changes the USB Serial Send Mode from Normal (default) to Send All mode. In Normal mode, the Base will check to see if the host has DTR (Data Terminal Ready) enabled before sending data. In Send All mode, the Base will send data regardless of the status of the DTR signal.
 - n sets the send mode to Normal, Send All or Query to return the current mode.
 - N = Normal
 - A = Send All
 - Q = Query
 - Normal responds with MBLAPI_NORMAL
 - Send All responds with MBLAPI_SEND_ALL

<\$:BID Base ID

- Sends back the Base ID. Base ID is a 6 character unique identifier for a MobileCollect Base Receiver.

<\$:BMN Base Model Number

- Sends back the Base Model Number. The Base Model Number can be used to identify the type of MobileCollect Base you are communicating with.
 - Wedge Base
 - MC-BK306-A
 - RS-232 Base
 - MC-BR306-A
 - USB Base
 - MC-BU306-A
 - MicroBase USB A & USB C
 - MC-BM306-A

<\$:BCS Restore Base to Factory Defaults

- Resets the Base back to factory defaults.

<\$:BLD Blink Base LEDs

- Blinks the LEDs.
 - Full Size Base (MC-BU306-A, MC-BR306-A & MC-BK306-A)
 - Turn on and off left green LEDs and then right multicolored LEDs.
 - MicroBase (MC-BM306-A)
 - Turn on and off multicolored LEDs.

<\$:BFV Base Firmware Version

- Sends back firmware version number for Base.

<\$:WFSn Output Data Packet Field Separator

- This command changes Field Separator on the output data packet. This is important when you need the data to go into the next cell, input field or for consistent parsing within the host program.
 - n sets the Output Field Separator to comma, TAB and Carraige Return.
 - 0 = Comma
 - 1 = Tab
 - 2 = Carraige Return
 - Q = Query
 - Comma responds with MBLAPI_FIELD_SEPERATOR_
 - TAB All responds with MBLAPI_FIELD_SEPERATOR_TAB
 - Carraige Return responds with MBLAPI_FIELD_SEPERATOR_CR

GageSync & TriggerSync Commands

Base Firmware: 6.30

Mini Mobile Module EVO Firmware: 6.12

GageSync and TriggerSync commands are stored on the Base and sent to the EVO transmitter when the EVO transmitter performs a check-in with the base. Out of the box the transmitter runs Smart Battery Management scheme B (Average), so the check-in interval is modulated against gage activity rather than fixed, and is adjustable per channel with <\$A:GSnSTx.

The following commands are used to communicate with the EVO transmitter when paired via the API or Xpress Setup on an individual channel. These commands will not work when the EVO Transmitter is paired to the global channel.

n = Channel Letter for each command. A = 1, B = 2, C = 3, D = 4, E = 5, F = 6, G = 7, H = 8, I = 9, J = 10, K = 11, L = 12, M = 13, N = 14, O = 15

Command Feedback

When sending a command, you'll receive a response when the command has been processed by the base and is queued for the next transmitter check-in. You'll receive a second response when the command has been executed by the transmitter.

Responses After Command is Sent

1. API Confirmation – Command is Queued for Transmitter at next check-in
 - a. Carriage Return (\x0d)
 - b. MBLAPI_SUCCESS
 - c. Carriage Return (\x0d)
 - d. Command Host Computer Sent (Example: <\$A:GSASN2)
 - e. Carriage Return (\x0d)
2. Data Requested if Applicable
 - a. If meta data from gage is requested, it will be returned after the API Confirmation.
 - i. Example: Serial Number, Calibration Date, etc
 - b. If meta data is not requested and a parameter has been changed or a check has been performed nothing will be returned.
3. GageSync/Trigger Sync Confirmation
 - a. Carriage Return (\x0d)
 - b. MBLAPI_GS_TS_SUCCESS – Transmitter Successfully Executed Command
 - c. MBLAPI_GS_TS_FAILED – Transmitter Failed to Execute Command
 - d. Carriage Return (\x0d)
 - e. Steady State of Command Host Computer Sent
 - i. Example Command to Base: <\$A:GSASN2
 1. “2” notation tells transmitter to send serial number back immediately and do not send it with every reading.
 2. <\$A:GSASN0: “0” is the steady state of <\$A:GSASN2 as it is not sending the serial number back with every reading.

3. <\$A:GSASN0: sent back to computer for confirmation of steady state
- f. Carriage Return (\x0d)

Error responses

- MBLAPI_NO_MODULE_CHAN_n
 - No Mini Mobile Module EVO paired with the channel called out, n is replaced with the Channel Letter.
- MBLAPI_INVALID_CHANNEL
 - Channel variable n is invalid
- MBLAPI_GS_TS_NOT_ACTIVE_CHAN_n
 - GageSync and/or TriggerSync is not activated on the channel called out, n is replaced with the Channel Letter.
- MBLAPI_GS_CMD_GS_CHECK_CHAN_n
 - GageSync command used on transmitter in TriggerSync mode. Transmitter will verify if GageSync is available or only TriggerSync is available.
 - GageSync Verified (n = channel)
 - <\$A:GSnMD2_GS
 - TriggerSync Only
 - <\$A:GSnMD3_TS

Commands can be stacked, meaning you can send multiple commands that will all be handled the next time the Mini Mobile Module “checks-in” with the Base Receiver.

You must set both x & n to successfully execute these commands.

TriggerSync Commands: Mitutoyo S1 Gage not Required

<\$A:GSnMDx Bi-Directional Communication Mode

- This command enables and disables Bi-Directional Communication. Mini Mobile Module must be in Setup Mode to enable Bi-Directional Communication.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = “A,B,C,D,E,F,G,H,I,J,K,L,M,N,O”
 - x sets the Bi-Directional communication mode.
 - x = 0
 - Turn off Bi-Directional communication
 - x = 1
 - Turn on Bi-Directional communication. Mini Mobile Module EVO must be in Setup Mode.
 - Mini Mobile Module will respond with a Double Green, Double Red, Double Green, Double Red confirmation when Bi-Directional communication is enabled.
 - You’ll continue to be in setup mode after enabling until it times out or you press the orange read button.
 - X = 4
 - Query Transmitter Mode:

- GageSync Response
 - <\$A:GSnMD2_GS
- TriggerSync Response
 - <\$A:GSnMD3_TS
- GageSync / TriggerSync Not Enabled
 - <\$A:GSnMD0
- x = 5
 - Run GageSync test to verify if GageSync is available. If successful, GageSync commands are enabled. If test fails, only TriggerSync commands are available.

<\$A:GSnSTx Communication Frequency

- **Passive Battery Management** puts communication frequency under the direct control of the software communicating with the API. You select a fixed check-in interval, from 500 msec to 60 seconds, and the transmitter holds that interval until you change it. Set a shorter interval while a gage is actively in use and a longer interval while it sits idle. Moving between settings as your application demands is the intended use of this scheme, and it is the right choice when your software needs deterministic, known latency.
- **Smart Battery Management** hands that decision to the Mini Mobile Module EVO. Instead of holding one fixed interval, the transmitter modulates its own check-in rate against observed gage activity. It shortens the interval while the gage is in use, so command latency stays low when the operator is working, and lengthens the interval as the gage goes idle, so current draw drops when nothing is happening. A transmitter under Smart Battery Management spends its energy where responsiveness actually matters rather than paying a fixed polling cost around the clock.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"
 - x sets the communication frequency.
 - x = A
 - Most conservative - 2+ year battery life
 - x = B – Default Value
 - Average – 1.5 year battery life
 - x = C
 - Most aggressive – 9 month battery life
 - x = F
 - 500 msec
 - Projected battery life – 2 weeks
 - x = G
 - 1 sec
 - Projected battery life – 1 month
 - x = H
 - 2.5 sec
 - Projected battery life – 2.5 months
 - x = I

- 5 sec
- Projected battery life – 5 months
- x = J
 - 10 sec
 - Projected battery life – 9 months
- x = K
 - 30 sec
 - Projected battery life – 2 years
- x = L
 - 60 sec
 - Projected battery life – 3 years
- x = 4
 - Query Communication Frequency
 - Returns <\$A:GSnSTx (x = communication frequency letter)
 - When using Smart Battery Management, a query will “wake” the transmitter and reduce the latency for subsequent commands until the transmitter detects a significant duration of inactivity and goes back into a lower power mode.

<\$A:GSnFS1 Force Sleep

- This command forces the transmitter into sleep mode when using Smart Battery Management (A,B,C)
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = “A,B,C,D,E,F,G,H,I,J,K,L,M,N,O”
 - x = 1
 - Set transmitter to sleep state when Smart Battery Management (A,B,C) is enabled

<\$A:GSnGRx Gage Reading

- This command gets the reading from the gage at the next communication check-in. This command does not require an S1 compatible gage.
- Note: If S1 Commands are enabled such as Serial Number, this command will also send over all enabled S1 Commands with the gage reading.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = “A,B,C,D,E,F,G,H,I,J,K,L,M,N,O”
 - x = 1
 - Get the gage reading.

<\$A:GSnLED Turn on Transmitter LED

- Turns on Transmitter Green LEDs for 10 seconds. Used for troubleshooting and to identify which transmitter is on which channel.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = “A,B,C,D,E,F,G,H,I,J,K,L,M,N,O”

<\$A:GSnQR1 Query Status of All Parameters

- Returns the steady state of all configurable S1 parameters & the Communication Frequency.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"

<\$A:GSnTRx TIR Mode (Total Indicator Runout)

- This command executes a Total Indicator Runout measurement (TIR). When start command is received the transmitter will begin taking readings at approximately 10 readings per second until the stop command is received. When the stop command is received the output values will be; number of readings, min value, max value, range (example: 29,3.0040,3.0265,0.0225).
 - Note: During a GageSync/TriggerSync TIR Mode Continuous Read Cycle buttons presses will not effect the transmitter.
 - Limits on TIR Mode:
 - 10,000 gage readings | approx. 20 minutes
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"
 - x = 1
 - Starts TIR Mode Continuous Read Cycle
 - x = 0
 - Stops TIR Mode Continuous Read Cycle
 - x = 4
 - Query if TIR Mode Continuous Read Cycle is currently running
 - Not actively running
 - <\$A:GSnTR0
 - Actively running
 - <\$A:GSnTR1

Commands that require a Mitutoyo S1 Gage

<\$A:GSnSNx Serial Number

- This command gets the serial number from the S1 gage.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"
 - x = 0
 - Do not send the serial number with each measurement.
 - x = 1
 - Send the serial number with each measurement.
 - x = 2
 - Send the serial number on next communication check-in and do not send the serial number with each measurement going forward.

- x = 3
 - Send the serial number on the next communication check-in and send the serial number with each measurement going forward.
- x = 4
 - Query steady state of serial number
 - Do not send serial number with each measurement
 - Response: <\$A:GSnSN0
 - Send serial number with each measurement
 - Response: <\$A:GSnSN1

<\$A:GSnGCx Gage Code

- This command gets the gage code from the S1 gage.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"
 - x = 0
 - Do not send the gage code with each measurement.
 - x = 1
 - Send the gage code with each measurement.
 - x = 2
 - Send the gage code on next communication check-in and do not send the gage code with each measurement going forward.
 - x = 3
 - Send the gage code on the next communication check-in and send the gage code with each measurement going forward.
 - x = 4
 - Query steady state of gage code
 - Do not send gage code with each measurement
 - Response: <\$A:GSnGC0
 - Send gage code with each measurement
 - Response: <\$A:GSnGC1

<\$A:GSnLCx Last Calibration Date

- This command gets the last calibration date from the S1 gage. Last calibration date is set on the gage during calibration.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"
 - x = 0
 - Do not send the last calibration with each measurement.
 - x = 1
 - Send the last calibration with each measurement.
 - x = 2
 - Send the last calibration on next communication check-in and do not send the last calibration with each measurement going forward.
 - x = 3

- Send the last calibration on the next communication check-in and send the last calibration with each measurement going forward.
- x = 4
 - Query steady state of last calibration date
 - Do not send last calibration date with each measurement
 - Response: <\$A:GSnLC0
 - Send last calibration date with each measurement
 - Response: <\$A:GSnLC1

<\$A:GSnNCx Next Calibration Date

- This command gets the next calibration date from the S1 gage. Next calibration date is set on the gage during calibration.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"
 - x = 0
 - Do not send the next calibration with each measurement.
 - x = 1
 - Send the next calibration with each measurement.
 - x = 2
 - Send the next calibration on next communication check-in and do not send the next calibration with each measurement going forward.
 - x = 3
 - Send the next calibration on the next communication check-in and send the next calibration with each measurement going forward.
 - x = 4
 - Query steady state of next calibration date
 - Do not send next calibration date with each measurement
 - Response: <\$A:GSnNC0
 - Send next calibration date with each measurement
 - Response: <\$A:GSnNC1

<\$A:GSnMNx Model Number

- This command gets the model number date from the S1 gage.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"
 - x = 0
 - Do not send the model number with each measurement.
 - x = 1
 - Send the model number with each measurement.
 - x = 2
 - Send the model number on next communication check-in and do not send the model number with each measurement going forward.

- x = 3
 - Send the model number on the next communication check-in and send the model number with each measurement going forward.
- x = 4
 - Query steady state of model number
 - Do not send model number with each measurement
 - Response: <\$A:GSnMN0
 - Send model number with each measurement
 - Response: <\$A:GSnMN1

<\$A:GSnZG1 Zero Gage

- This command zeros the S1 enabled gage.
 - n sets the channel for the Mini Mobile Module EVO you want to communicate with.
 - n = "A,B,C,D,E,F,G,H,I,J,K,L,M,N,O"

Version History

API Version	Release Date	Firmware	Notes
1.0	Jan 01 2025	Base 6.20	Added Following Commands: ▪ <\$A:Cn - Enable pairing mode on n channel ▪ <\$A:C0 - Disable pairing mode ▪ <\$A:Dn - Remove pairing on n channel ▪ <\$A:OFxn - Change output format ▪ <\$A:ICLA - Query pairing information for all gage channels.
1.1	Jun 05 2025	Base 6.27	Updated Following Commands: ▪ <\$A:OFxn • Added <\$A:OFIR & <\$A:OFGR ○ R = All Data Added Following Commands: ▪ <\$A:OMn - Change or Query Output Mode on MicroBase EVO between Wedge & Serial
1.2	Sept 09 2025	Base 6.28	Added Following Commands: ▪ <\$A:BID - Base ID ▪ <\$A:BMN - Base Model Number ▪ <\$A:BCS - Reset to factory defaults ▪ <\$A:BLD - Blink LEDs ▪ <\$A:BFV - Firmware Version ▪ <\$A:NFXn - Set the number format • Decimal in USA “.” Or European “,” • Enable or disable leading zero ▪ <\$A:USBn – USB Serial Send Mode • Change or query USB Serial Send Mode
1.3	Oct 21 2025	Base 6.28	<\$A:ICLA ▪ Added Char output for Module Type
1.4	Oct 23 2025	Base 6.28	Changed Association nomenclature to Pairing.
1.5	June 18 2026	Base 6.30 EVO MM 6.12	GageSync and Trigger Sync Commands Added Added Base Configuration Command <\$A:WFSn - Wedge Output Field Separator
1.6	September 23, 2026	Base 6.30 EVO MM 6.12	Updated <\$A:WFSn command documentation as it changes field separator for Serial and Wedge output.