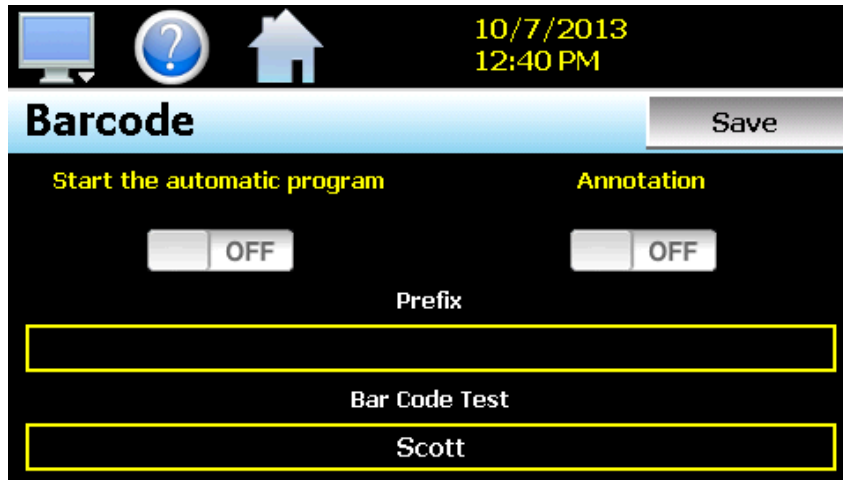


8.9 Barcode Reader

The Barcode screen provides access to the settings for the optional barcode reader. These include settings to turn the barcode reader on and off, applying a prefix to scanned data and a test window for verifying proper operation.



Barcode reader operation is enabled through the ‘Start the automatic program’ and ‘Annotation’ on/off buttons. The selections are mutually exclusive, i.e., only one can be enabled at a time. When one option is turned on, the other is automatically turned off.

When the **Start the automatic program** option is turned on, if the scanned data matches the name of a ramp/soak program stored in memory, nCompass will automatically load the program and prompt the user to start it. If the user presses ‘Yes’ to start the program it will be downloaded to the CM and will begin operation on the first step.

When the **Annotation** option is turned on, the scanned data will be written to the currently running data log file as operator event.

The **Prefix** field allows the user to enter up to 16 characters that will then be used as a prefix to the scanned value when matching a ramp/soak program name or when it is inserted into the active data log file. This can be used as a tag to describe what the scanned value represents, i.e., Lot or Batch number for example.

NOTE: Any changes made to the above settings must be saved in order for them to take affect. When changes are complete, press the ‘Save’ button to save the new settings in order to use them.

The **Bar Code Test** field allows the operator to test the operation of the barcode scanner. As a bar code is swiped by the reader, the scanned value will appear in this field. If upon scanning a bar code, no value appears in this field, check the wiring and communication settings of the barcode scanner to be sure that it is connected and set up properly.

8.9.1 Barcode Reader Communication Settings

In order for the barcode reader to communicate properly with nCompass, it must be set with the proper communication settings. This includes baud rate, data bits, stop bits, parity and start/end of transmission characters as follows:

Baud rate = 9600 baud
Data bits = 7
Stop bits = 1
Parity = even
Preamble = STX (0x02)
Postamble = ETX (0x03)

The preamble and postamble are the start of transmission and end of transmission characters that must be used to frame the barcode transmitted to nCompass so that it recognizes the beginning and end of the transmission. All other terminator, BCC, ACK and/or handshaking characters must be disabled.

8.9.1.1 Setting up the Unitech MS-120-2 Barcode Scanner

The following instructions are provided for the Future Design recommended Unitech MS-120-2 barcode scanner. These instructions do not apply to other makes or models of scanner. Consult the manufacturer's manual for other makes or models for information on how to set the proper communications settings.

NOTE: *The steps below are assuming manufacturer default settings are in place. If the scanner settings are unknown, restore the scanner to manufacturer defaults by scanning barcode 'enter group 1' on page 5 of the MS-120 Series Programming Manual and then scanning the 'factory defaults' barcode at the bottom of page 5. Scan 'exit' to complete the process.*

For communication settings see page 11 (RS232 Serial Setting) of the MS-120 Series Programming Manual

- Step 1 scan barcode at top of page 11 for 'enter group 4'
- Step 2 scan barcode C2 for parity on page 12 and then scan the barcode for the number 0 on page 11
- Step 3 scan barcode C3 for data bit on page 12 and then scan the barcode for number 0 on page 11
- Step 4 scan the barcode for 'exit' on page 11 to complete RS232 settings

For pre/postamble settings see page 13 (Scanner) of the MS-120 Series Programming Manual

- Step 1 scan barcode at top of page 13 for 'enter group 5'
- Step 2 scan barcode D1 for terminator at top of page 14 and then scan the barcode for the number 3 on page 13
- Step 3 scan barcode PP for preamble at bottom of page 14 and then scan the barcode for STX at top of page 30 (2nd down on left)
- Step 4 scan barcode OO for postamble at bottom of page 14 and then scan the barcode for ETX at top of page 30 (2nd down on right)
- Step 5 scan the barcode for 'exit' on page 13 to complete settings

8.9.2 Important Notes on Barcode Reader Use

There are certain limitations of use for the barcode reader based on the mode of operation selected. It is important that the user read and understand these to insure that the barcode reader operates as expected.

8.9.2.1 Using the Barcode Reader to Start an Automatic Ramp/Soak Program

When using the barcode reader to start a program, the scanned barcode data must match the ramp/soak program name exactly in order for nCompass to load and prompt the user to start it. Program names can be a maximum of 16 characters, which also matches the maximum data that nCompass will accept from the barcode scanner. However, if a prefix is also used, the overall name (prefix + scanned data) can exceed the maximum allowed file name length for a program. If nCompass does not find an exact match, it will ignore the scan. Thus, it is up to the user to insure that a matching program exists for each bar code that will be scanned.

If an automatic ramp soak program is already in operation, or a program download is active from a remote PC, nCompass will ignore any barcode scan made during that time. nCompass will also ignore a barcode scan if the FTP data backup is active. The user must manually stop the currently running program or wait for the remote PC download to complete before scanning the barcode to begin the matching program. The user also has the option of cancelling the FTP data backup while it is in progress if necessary, in order to scan and start a program.

If the automatic FTP data backup is set to occur while an automatic program start is in progress by a barcode scan, but the user has not yet acknowledged the request to start the program, the FTP data backup will be skipped. The automatic FTP data backup will then occur at the next scheduled interval. This allows the user to proceed without interruption; however, it does prevent the scheduled backup of data. If necessary, a manual FTP backup can be performed once the program has been started.

8.9.2.2 Using the Barcode Reader to Annotate a Data Log File

When scanning bar codes, a minimum time period of 3 seconds is required between each code scanned. This provides the time necessary for nCompass to acquire the code and insert it as an annotation into a running log file. If multiple bar codes are scanned too quickly, nCompass may miss a scan because it is still processing the previous bar code.