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Barcode Reader for the AutoMate Express™ Instrument

USER GUIDE | **JUNE 2010**

SUBJECT: Set Up and Use the Barcode Reader and Barcode Utility for the AutoMate Express™ Instrument

Note: For safety and biohazard guidelines, refer to the "Safety" section in the *AutoMate Express™ Instrument User Guide* (PN 4441982). For every chemical, read the SDS and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

In this user guide

This user guide covers:

Overview

The AutoMate Express™ Barcode Utility is a MicroSoft Excel® worksheet that you can use with the barcode reader provided with the AutoMate Express™ Instrument, to:

- Track reagent, sample, and extraction run information
- Track and confirm correct sample position in the AutoMate Express™ Tip and Tube Rack
- Generate an extraction run report
- Generate an exportable sample information file that you can use for downstream sample setup on the Tecan HID EVOlution™ – qPCR/STR Setup System or HID EVOlution™ – Combination System

Using the barcode reader and the barcode utility is optional. To use the barcode reader and the barcode utility:

1. (One time) Install the barcode reader and driver (see page 2).
2. (One time) Set up (see page 3) and test (see page 5) the barcode reader.
3. (Each run) Scan and type information into the barcode utility (see page 6).

Install the barcode reader and barcode reader driver

The Gryphon I GD4130 Barcode Reader is shipped with the AutoMate Express™ Instrument. Before you use the barcode reader for the first time:

1. Download the barcode reader driver to your laboratory computer as follows:
   a. Go to **www.scanning.datalogic.com/sitefiles/software.aspx**.
   b. Select **Gryphon I GD 4100** from the "Select a Product" drop-down list. A list of drivers is displayed.
   c. Select the driver that contains "USB-COM" in the driver name, then save the file to your system.
   d. Unzip the saved file.
2. Connect the barcode reader to your laboratory computer using the USB cable shipped with the instrument.
3. In the Found New Hardware Wizard, select **Install from a list or specific location**, then click **Next**.

   Note: If the Found New Hardware Wizard does not automatically launch, select **Control Panel ▸ Add New Hardware** from the Windows Start menu.
4. In the next screen, click **Browse**, browse to the folder that you downloaded and unzipped, select the file with the .exe extension, then click **Next**.
5. Click **Finish** to finish installing the driver.

   Note: If necessary, click **Continue Anyway**, then click **Finish**.

Set up the barcode reader

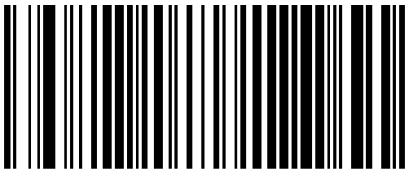
Before first use, scan the barcodes in each of the following sections, in order.

IMPORTANT! When scanning barcodes:

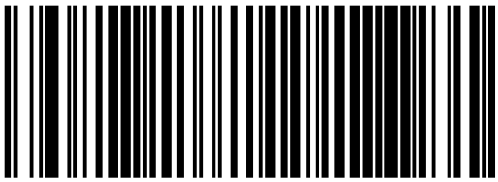
- Make sure the LED light blinks after you scan each barcode.
- If the LED light does *not* blink after scanning a barcode, rescan the same barcode.
- If the LED light does *not* blink after *rescanning* a barcode, or if you scan a barcode out of order, start over from step 1 of "Restore the factory settings and set the computer interface".

Restore the factory settings and set the computer interface

1. Restore the barcode reader to original factory settings:

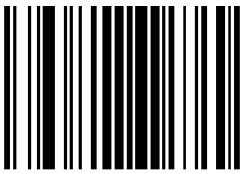


2. Scan to select the USB-keyboard with standard key encoding interface:

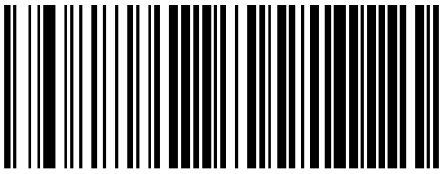


(Optional) Lower the barcode reader sound volume

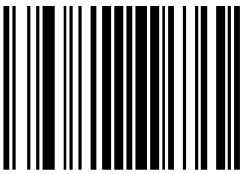
1.



2.



3.

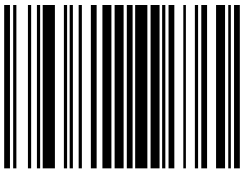


Set up to scan Codabar (NW7) barcodes

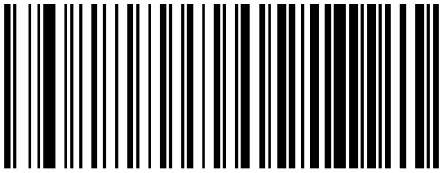
The barcode reader reads most standard barcodes including UPC-A, EAN-13, Code 32, Code 39, and Code 128. In this section, you teach the barcode reader to read Codabar (NW7) barcodes, which are used on the AutoMate Express™ Tip and Tube Rack.

Note: For information on other settings or barcode types, go to **www.scanning.datalogic.com/sitefiles/manuals.aspx**, select **Gryphon I GD 4100** from the "Select a Product" drop-down list, then select the ***Product Reference Guide***.

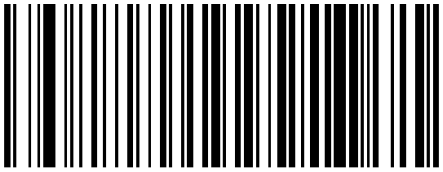
1.



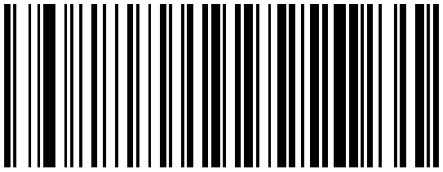
2.



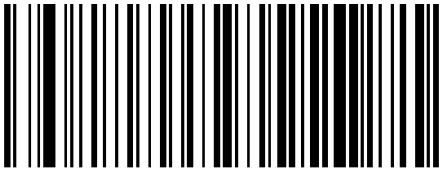
3.



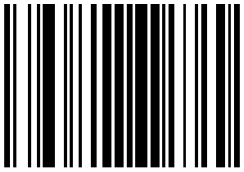
4.



5.



6.



Test the barcode reader

After successfully performing "Set up the barcode reader" on page 3, test the barcode reader to confirm proper operation of the scanning function:

1. Open MicroSoft Excel® (or any text editor such as Notepad).
2. Place the cursor in a cell in the Excel worksheet, scan a barcode, then confirm that the barcode number displays correctly in Excel. Test barcodes on:
   - The PrepFiler Express™ and/or PrepFiler Express BTA™ Forensic DNA Extraction Kit and kit components
   - The AutoMate Express™ Tip and Tube Rack
   - All other barcodes that you will use for sample tracking (for example, barcodes on sample tubes)

Troubleshooting

If a barcode is not read correctly:

1. Rescan the barcode. Make sure that the barcode reader is approximately 6 inches from the barcode, and that the barcode is in the barcode reader scanning area (red light strip).
2. If a barcode cannot be scanned:
   - Confirm that your barcode type is supported for use with the default barcode reader settings. For more information, refer to the manufacturer's website (go to **www.scanning.datalogic.com/sitefiles/manuals.aspx**, select **Gryphon I GD 4100** from the "Select a Product" drop-down list, then select the ***Product Reference Guide***).
   - Repeat the setup procedure. See "Set up the barcode reader" on page 3.

Enter data into the AutoMate Express™ Barcode Utility

(One time) Download the AutoMate Express™ Barcode Utility

Download the AutoMate Express™ Barcode Utility to your laboratory computer as follows:

1. Go to **www.appliedbiosystems.com/automateexpress**.
2. On the right side of the page, click the **AutoMate Express™ Barcode Utility** link.
3. In the File Download dialog box, click **Save**, then save the file to your laboratory computer.
4. Unzip the file.

Scan and type information into the AutoMate Express™ Barcode Utility

1. Position the computer and barcode reader so that you can easily scan the samples and the Tip and Tube Rack.

2. For each run, open the AutoMate Express™ Barcode Utility, then select **File ▸ Save As** to save the file with a new name.

3. Select the **Kit Information** tab, then enter the following information. This information will be included in the run report.

Kit Name	*PrepFiler Express™ kit*
Part No.	
Lot No.	
Expiration Date	

Place cursor in blue cells to enter information by scanning or typing

   - **Kit Name** – Select a kit from the drop-down list
   - Place the cursor in the blue cell beside each of the following fields, then scan the barcode for that field from the PrepFiler™ kit cartridges label:
     - **Kit Part No.**
     - **Kit Lot No.** (If you are using more than one lot number, scan the first barcode, type a comma (,), then scan the next barcode. Repeat as needed, typing a comma between each additional barcode.)
     - **Kit Exp. Date**

4. Select the **Run Information** tab, then type the following information to include it in the run report.
   - Protocol card version number
   - Instrument serial number
   - Date of run
   - Time run started
   - Time run finished
   - Error codes displayed during run, if any
   - Operator name

5. Track sample barcode information in the Sample Information tab:

   Note: The Sample Information tab helps you to:
   - Track the sample and elution tube barcodes and positions in the Tip and Tube rack
   - Match the barcodes on the sample and elution tubes to prevent sample mix-up

   Note: If you will export this sample information for import to the HID EVOlution™ – Extraction or Combination System software, you must:
   - Use only allowed characters in the barcode or sample name: Letters, numbers, and underscore (_) are permitted. Do not use spaces or other characters, for example, #, +, or &.
   - Enter sample information in continuous rows with no empty rows between samples.

   a. Print the necessary barcodes, then label the sample and elution tubes.

   b. Select the **Sample Information** tab, then perform the following steps:

Place the cursor in cell...	Then...
B2	• Scan the first sample tube barcode. • Place the tube in position S1 in the Tip and Tube Rack.
C2	• Scan the lane 1 barcode on the Tip and Tube Rack.
D2	• Scan the barcode of the first empty elution tube. • Place the tube in position E1 in the Tip and Tube Rack.
E2	• Scan the lane 1 barcode on the Tip and Tube Rack again.

   c. Repeat step b in a new row for each of the remaining samples.

   d. Make sure that each row of columns F and H read "OK". If any cells contain "Check", make sure that the corresponding sample and elution tube barcodes match and are loaded in the correct lanes.

   e. (Optional) Enter any comments in the Sample Information field in column K.

6. Select the **Report** tab.

   This tab contains the data that you entered in the previous tabs. Export or print the information in this tab for inclusion in a case file.

7. (Optional) You can export the scanned sample information for use in automated qPCR and STR PCR setup on the HID EVOlution™ – qPCR/STR Setup System or HID EVOlution™ – Combination System:

   a. Select the **HID EVOlution™ System Export** tab.

   b. Select **File ▸ Save As**, then save the information in .csv format.

   Refer to the *HID EVOlution™ – qPCR/STR Setup System Getting Started Guide* (PN 4426903) for information on importing the file to that system.

Obtaining support

For HID support:

- In North America – send an email to **HIDTechSupport@lifetech.com**, or call **888-821-4443** option **1**.
- Outside North America – contact your local support office.

For the latest services and support information for all locations, go to:

www.appliedbiosystems.com

At the Applied Biosystems web site, you can:

- Access worldwide telephone and fax numbers to contact Applied Biosystems Technical Support and Sales facilities.
- Search through frequently asked questions (FAQs).
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