

# Ventana BenchMark GX

quick reference guide



### **Basic Slide Run**

### I. Prepare the Instrument

A. Empty the waste container

- 1. Pull out the bottle and un-screw the top
- Empty the bottle according to laboratory procedures.
- Replace the bottle, screw on the top, and push the bottle into place.
- B. Refill each bulk bottle, as needed:
- 4. To remove a bulk bottle, press the latch release and pull the bottle out
- C. To install a bulk bottle:
- 5. Refill the bottle with the same product
- Place the bottle in the slot and push it forward until you feel or hear it click. The bottle fitting should be seated securely against the instrument fitting.

Positions of Bulk Products on the Instrument







### II. Label slides

- Click the slide label icon at the bottom of the main screen.
- In the Ventana Slide Labeling System, click the Protocols icon.
- In the Select Protocols list, select one or more protocols. For each protocol Click the protocol to select it.
- 10. Enter the number of labels to print in the Copies field.
- Click the Add icon to copy the item to the Labels to Print list.
- 12. Click the Close/Print icon.
- The first label is selected in the Labels to Print list. Enter information in the required fields, and then click the Print icon. Repeat for each label.
- 14. When all labels are printed, click the Close icon.
- Press the Feed icon on the printer to advance the last label. Pull the label downward and tear it neatly off the roll.
- 16. Apply the labels to slides







- Peel the adhesive backing off the protective flap.
- 18. Fold the flap over the label
- 19. and smooth it down, then peel the label off its backing.
- Center the label on the frosted side of the slide and smooth it down. The label should not extend over the edges of the slide.



### III. Load slides and reagents

- 21. Remove the reagent tray.
- 22. Open the slide doors
- Press down on either corner of the top door to release the latch, and then pull the front door forward to open it.
- 24. Lift the top door up.
- 25. Manually rotate the slide carousel to the desired position.
- Place each slide on a slide heater pad with the label facing up and outward, making sure the slide is seated between the posts.

- 27. Close the top slide door.
- Place the reagent dispensers on the reagent tray.
- 29. Remove each dispenser cap and place it on the cap holder.
- Push the dispenser into the slot until it clicks into place. (Avoid pressing down on the top of the dispenser.)
- Place the reagent tray on the reagent carousel. Turn gently to make sure it is seated securely.
- Close the front slide door, making sure the tab on the door fits over the base of the reagent tray.









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### IV. Start a Run

- At the computer, click the Run icon in the main screen.
- In the Pre-Run checklist, click the last two check boxes and type in the number of slides loaded.
- 35. Click the Start Run icon.
- 36. The Running light becomes yellow.
- If a manual application is required, the system will pause and alert the operator.
- Remove the reagent tray and open the slide doors.
- 39. Dispense reagent onto each slide. Hold the pipette at a 45 degree angle. Insert the tip so that it penetrates the liquid puddle on the slide. Dispense gently to avoid spilling reagent over the edges of the slide. Take care not to draw liquid back into the pipette.
- 40. Close the top slide door, replace the reagent tray on the carousel, and close the front slide door, making sure the tab on the door fits over the base of the reagent tray.
- Press the Ventana icon on the instrument control panel to resume the run.
- When the run is finished, the system alerts the operator and illuminates the Sign Off icon at the bottom of the main screen.
- 43. Remove the completed slides.
- 44. Click the Sign Off icon.







### V. Clean the slide drawer

- 45. At the main screen, click the Clean icon. The Running light glows yellow.
- 46. Wait 10 to 15 minutes. When the process is completed, the Running light goes off, the instrument Connected light becomes green, and the Sign Off icon is illuminated.
- 47. Click the Sign Off icon.





### VI. Install a ribbon

- Press down on the ribbon access window to release it, and then lift the window up.
- Press the ribbon rewind spindle to the left to release it, and then lift it out.
- 50. Remove the used ribbon.
- 51. Return the rewind spindle to the printer.
- Press the ribbon supply spindle to the left to release it, and then lift it out.
- 53. Remove the empty ribbon core.
- 54. Slide a new ribbon onto the supply spindle, with the ribbon positioned to hang downward behind the spindle. Center the ribbon on the spindle.
- 55. Return the spindle to the printer.
- Pull the top release levers and lift the top cover of the printer.
- Remove the tape from the new ribbon and unroll the ribbon until it hangs below the top cover.
- Guide the ribbon up and over the front of the top cover and tape the end of the ribbon to the empty rewind core. Rotate the rewind core once to smooth the ribbon.
- 59. Lift the top cover of the printer all the way up to release it, then close it.
- 60. Close the ribbon access window.
- Update the Ventana Slide Labeling System for the new ribbon.

### VII. Update the Ventana Slide Labeling System

- 62. Click the slide label icon at the bottom of the main screen.
- 63. In the Ventana Slide Labeling System, click Configure.
- 64. In Setup Host, click the SLS Options tab.
- To add labels, click "New 520 label roll." To add a ribbon, click "New 2500 label ribbon" or "New 8100 label ribbon."
- Click the Save button, and then click the Close button.



### VIII. Load labels

- 67. Pull the release levers (85) toward the front of the printer and lift the top cover.
- 68. Remove the label spindle (79).
- 69. Pull off one of the spindle tabs (78).
- Slide a roll of VMSI labels onto the spindle and center the roll.
- Push the spindle tab back onto the spindle, making sure the labels can move freely between the tabs.
- Place the label spindle in the spindle mounts, with the labels positioned to unroll from the top and forward.
- Thread the roll, label side up, under the plastic roller (81), between the paper guides (82), and over the rubber roller (83) and metal bar (84).
- Adjust the paper guides so that they just touch the edges of the label roll, making sure the labels can move freely.
- Lift the printer top cover all the way up to release the catch, and then close it.
- Update the Ventana Slide Labeling System for the new label.

### IX. E-bar II Printer

- 77. Top cover
- 78. Label spindle tab
- 79. Label spindle
- 80. Labels
- 81. Plastic roller
- 82. Paper guides
- 83. Rubber roller
- 84. Metal bar
- 85. Top release lever



# Maintenance

Wipe external surfaces.	Daily	Monthly	Quarterly	
Complete the Pre-Run Checklist.	Preventive	Preventive maintenance should be performed regularly and recorded in the User Maintenance Log. Instructions for performing and logging tasks are provided in the BenchMark GX Operator Manual.		
Rinse each bulk fluid container	regularly an Log. Instru			
Level the instrument	tasks are Operator M			
Wash and brush slide heater pads				
Wash and brush nozzles	Run Slide he	ater pad temperatu	re verifiers	
Clean barcode reader mirror	Decontamin	ate the instrument		
Clean waste drain	Run ScanDi			
Clean bulk solution bottle inlet filters	Defragment	the hard drive		

## **Common Error Messages**

For help with other error messages, please contact Ventana.

Message	Probable Cause	Possible Solution
6-68 Reagent XXXX missing from tray.	A required reagent is not on the reagent tray.	Add the missing dispenser to the reagent tray, and then restart the run. If you believe the reagent is not required, make sure it was not unintentionally selected in the slide protocol.
6-66 XXXX, #XXXX dispenser missing from tray.	A dispenser from a required kit is not on the reagent tray.	Add the dispenser to the reagent tray.
6-67 Not enough of reagent XXXX to perform run.	The combined dispensers on the reagent tray do not have enough tests remaining to complete the run.	Add another dispenser of the reagent to the reagent tray.
6-32 XXXX dispenser #XXXXX missing from Dispenser database.	A dispenser on the reagent tray has not been registered.	Register the dispenser using the product registration probe.
6-78 Dispenser x, Serial #y has expired and can not be used in this run.	A dispenser on the reagent tray is past its expiration date.	Remove the dispenser and replace it with a valid dispenser.
6-69 Dispensers XXXX, #XXXX and XXXX, #XXXX must be beside each other.	The dispensers are not placed correctly on the reagent tray.	Place the dispensers next to each other, and then restart the run.
14-5 Slide Barcode Count mismatch, check View Slides for those found.	The number of slides on the carousel does not match the number of slides entered in the Pre-Run Checklist.	Enter the correct number of slides, and then restart the run.
6-23 No slides found to run.	The system could not read the bar codes on the slide labels.	Clean the mirror on the barcode reader, and then restart the run.
13-7 Slide Barcode Check Digit Error, Restart Run.	A system error or a problem with label barcodes prevented correct reading of slide labels.	Restart the run. If the error occurs again, reprint the slide labels.
6-47 Protocols in run are incompatible with each other.	Protocols for some slides in the run require different bottle selections	All bottle selections for all slides in the run must be the same. Remove conflicting slides or change conflicting protocols, then restart the run.

### **Manage Products**

### 86. Register

#### Register Task - Nex/ES IHC Staning Mod 87 Register Vertrae Produce Log Silk Produce Log Silk Produce Log Silk Arthodies Log Citalia Arthodies Log Costes Fill Vertran Dispenser Enl Vertran Dispenser Ener Control Results

### I. Register Ventana products

- 86. Click the Register icon in the main screen.
- 87. In the Register Task menu, click Register Ventana Products.
- Press the registration wand to the data button on the product package until the product information is displayed. Either a QC message or a Finalize button will be displayed with the product information.
- 89. If the QC message is displayed click the OK icon.



- Click the Register icon in the main screen.
- In the Register Task menu, click Log Fillable Antibodies (or Reagents).
- In the Log Fillable Antibodies window, click the antibody name in the Select a Logged Antibody list.
- Enter the product Lot Number, Concentration (if applicable) and Expiration Date.
- Click the Receive icon to record the information and display the QC message.
- 95. Click Ok to close the QC message.
- Click the Close icon to return to the main screen.





#### III. Fill a new Ventana dispenser

- 97. Make sure the product has been logged.
- Register the dispenser using the product registration probe.
- In the Register Task menu, click Fill Ventana Dispenser.
- In the Product Name list, click the dispenser to fill, and then click the Fill icon.

A list of products appears below the dispenser record.

- 101. In the products list, click a product to fill the dispenser.
- 102. Enter the product expiration date in the Chem Expiration box.
- 103. Type the amount of product in the Milliliters box.
- 104. Click the Fill icon. The Product Name list returns. The dispenser name and the product name are combined in the product record. The zero in the Remaining column is replaced by the number of tests remaining.
- Click the Close icon to return to the main screen.

#### IV. Refill or partially fill a dispenser

- 106. Follow steps 97 and 99 through 102 in "Fill a new Ventana dispenser."
- 107. To empty a dispenser and refill it, click the Refill icon. The following message appears: "Has the old volume in this dispenser been emptied?" Click Yes. Make sure the dispenser is empty, then refill it with the volume specified in the Milliters box.
- 108. To add to a dispenser that is not empty, click the Partial icon. If the volume entered in the Milliliters box exceeds the allowable volume, the following message appears: "This dispenser can only receive ### more tests. Continue with partial fill?" Click Yes. The amount is adjusted and the following message appears: "Add the new volume to that existing in this dispenser?" Note the amount of product to be added to the dispenser, and then click Yes. Add the specified amount of fluid to the dispenser.
- Click the Close icon to return to the main screen.









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