

Element i+ Immunodiagnostic Analyzer



Cartridge Type/Calibration Information

Prior to running the first Element i+® Cartridge of a new lot number, the lot-specific calibration data must be loaded into the Element i+ Analyzer. A small USB flash drive is supplied with each box of cartridges. Figure 1

1. Insert the USB flash drive into any of the four USB ports located on the back of the analyzer. Figure 2
2. From the Home screen, touch .
3. From the Settings screen, touch Import Cartridge Types/Calibration Info, then touch Import Calibrations.
4. When the screen shows Completed Successfully, touch  and then remove the USB flash drive from the back of the analyzer and return it to the cartridge box.

NOTE: Retain lot-specific USB flash drives at least until all cartridges within a box are used.

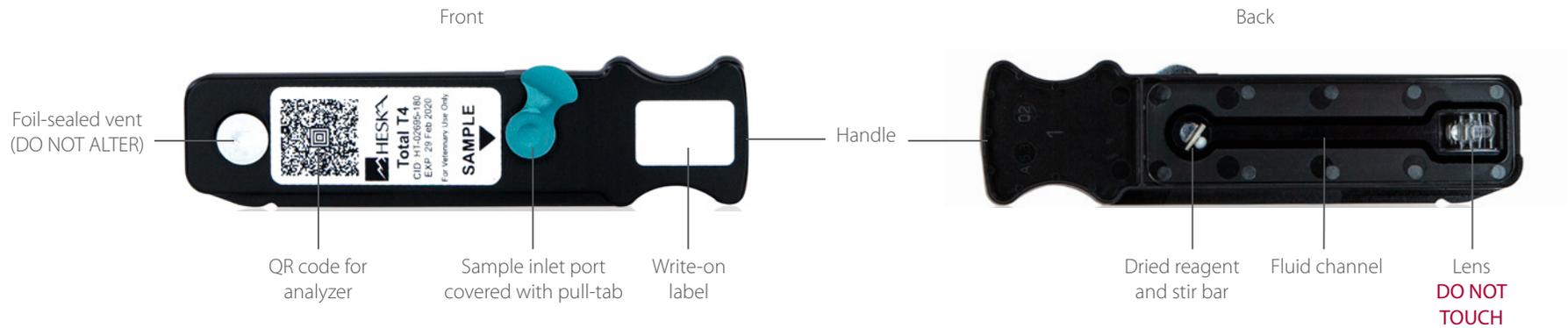


Figure 1



Figure 2

AVOID TOUCHING THE CARTRIDGE BOTTOM • THE ANALYZER READS THROUGH THE BOTTOM

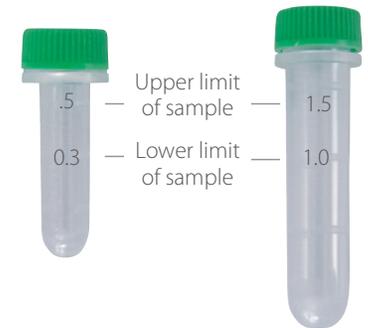


Sample Collection and Handling

NOTE: Handle all samples and used materials as infectious waste. Wear gloves, glasses and other protective gear for safety.

Heska-Supplied Green Top (lithium heparin) Tubes (GTT)

1. Draw patient sample using a 22 gauge or larger needle.
2. Remove needle from syringe to fill a 0.5 mL or 1.5 mL GTT.
3. Fill sample tube.
 - 0.5 mL tube: Fill with at least 0.3 mL of sample (second line).
 - 1.5 mL tube: Fill with at least 1 mL of sample (second line).
 - Immediately invert the tube 5 to 10 times to ensure proper mixing of lithium heparin and sample.
4. Spin sample in Heska-provided centrifuge for 5 minutes.



NOTE: EDTA (Purple Top Tube) plasma required for Nu.Q® testing. See below for more details.

Standard Green Top Tubes, Purple Top Tubes or Red Top Tubes for Harvesting Plasma or Serum

1. Draw patient sample using a 22-gauge or larger needle.
 - For Nu.Q® testing, place whole blood sample into EDTA Purple Top Tube (PTT) and spin at “blood” (1600xg or higher) setting for 10 minutes within 1 hour of collection.
 - For all other Element i+ tests, process sample as normal for either lithium heparin plasma or serum samples
 - RTT serum samples: Allow 15–20 minutes to clot prior to centrifugation.
2. Transfer plasma or serum using Heska-provided mini-pipette.
 - For Nu.Q tests, use Heska-supplied yellow, 50 uL mini-pipette.
 - For all other Element i+ tests, use Heska-supplied blue, 100 µL mini-pipette.

NOTE: Avoid use of serum separator tubes (tiger top) as separator gel may impact test results for certain assays.

Running a Test

1. Obtain a serum or plasma sample.
 - For Nu.Q® tests, EDTA (Purple Top Tube) plasma is required.
 - All other Element i+ tests are compatible with serum or lithium heparin plasma.
2. On the main screen, touch Worklist or Manual Test. Figure 3
3. In Worklist Mode, confirm that all fields have correct information and then touch  to proceed.
 - In Manual Mode, enter sample information in the required fields.
 - Touch  to proceed. Figure 4

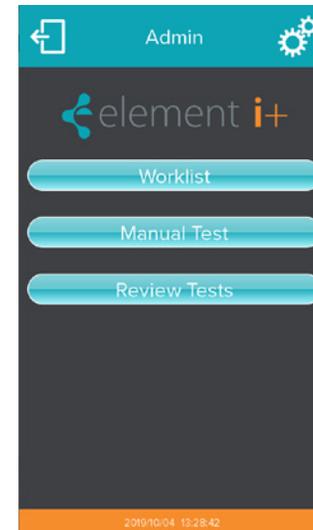


Figure 3

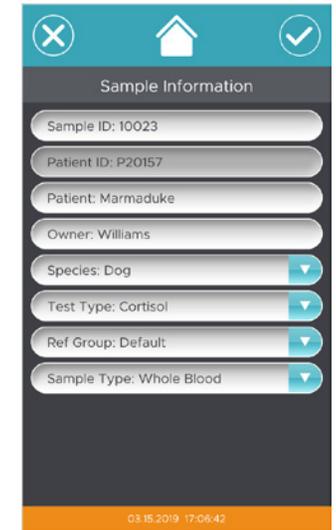


Figure 4

4. Open the pouch by tearing at the notch. Carefully remove the cartridge by the handle and place it on a flat surface. Figures 5 & 6
NOTE: Do not touch the bottom of the cartridge.
NOTE: If the cartridge was refrigerated, allow to warm to room temperature for at least 15 minutes before opening the pouch.
NOTE: Cartridge must be used within 1 hour of removal from pouch.
5. With the cartridge flat on the bench, remove the pull-tab from the sample inlet port and discard. Use the cartridge handle to steady the flat cartridge while removing the pull-tab. Figure 7
NOTE: Cartridge must be used within 15 minutes of removing pull-tab.
6. **NOTE:** Instructions for T4 ONLY (Other tests skip to 7).

Dilute patient sample using supplied Heska T4 Diluent.

- a. Use supplied 100 μ l fixed volume mini-pipette (blue) to aspirate 100 μ l of serum or plasma sample.
- b. Gently flick or tap the Heska T4 Diluent tube to ensure no liquid is adhering to the inner surface of the cap. Visually inspect the diluent level; it should align with the lower edge of the tube label. If the tube has leaked, discard it and use a new diluent tube. The correct volume of diluent is important for test accuracy. For replacement diluent, contact Technical Support. Figure 8
- c. Dispense the full 100 μ l patient sample into the Diluent tube. Ensure proper mixing by then aspirating and dispensing 5x using the same pipette tip.
- d. Aspirate 100 μ l of the diluted sample using the mini-pipette and same pipette tip, insert the pipette tip into the T4 cartridge sample inlet port hole, and dispense the full amount into the hole (Skip to 8).



Figure 5



Figure 6



Figure 7



Figure 8

7. Affix a tip to the fixed volume mini-pipette required for the desired test. Aspirate sample, insert the pipette tip into the inlet port hole, and dispense the full sample amount into the hole. Figure 9
 - For Nu.Q® tests, the yellow 50 µL mini-pipette is required.
 - All other Element i+ tests require the blue 100 µL mini-pipette.
8. Touch on the Prepare Sample screen to open the analyzer door. Figure 10
 - Insert the cartridge until you feel a click and hear a beep. Figures 11 & 12
9. The test will run automatically.
A status bar and countdown timer will display on the screen and the indicator light



Figure 9



Figure 10



Figure 11



Figure 12

on the front of the analyzer will blink to indicate a test is running. Figure 13

NOTE: To cancel during the run, touch **X** at the upper right of the screen.

11. Upon test completion, patient results will display on the screen.

- Touch  to exit results screen. Figure 14
- The screen will provide an indication when it is safe to remove the used cartridge. Figure 15

NOTE: Do not attempt to remove cartridge before signaled by analyzer.

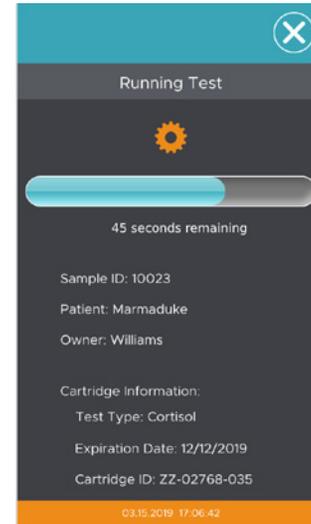


Figure 13

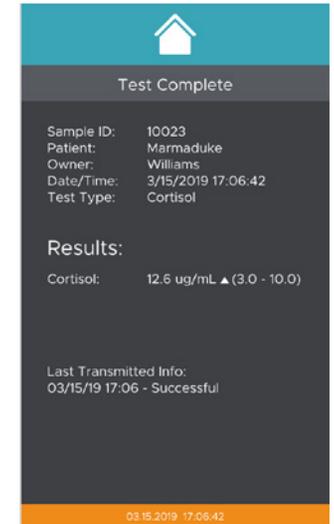


Figure 14



Figure 15



For further assistance, please call Heska's Customer Support Services

US 800 464 3752
www.heska.com

CA 866 382 6937
www.heskavet.ca

AU 1300 437 522
www.heska.com.au