

Element DCX Veterinary Chemistry Analyzer



Element DCX™ Veterinary Chemistry Analyzer Supplies

NOTE: For access to the full user manual for this product, please visit www.heska.com/productmanuals.

Remove testing supplies from refrigerator and warm to room temperature:

- Slides: 5 minutes in foil pouch. **NOTE:** Remove only those needed for ordered tests.
- Reconstituted HESKA® Chemistry Control: 5 minutes.
- Electrolyte Reference Fluid (RE Fluid): 5 minutes in the Red Top sample tube.

NOTE: Only the amount intended to be used should be warmed to room temperature. The RE fluid bottle should never be allowed to set out and get to room temperature.

NOTE: Fill 0.5 mL or 1.5 mL Red Top sample tube depending on the reference fluid setting designated in, "Tube setting for diluent and reference fluid" (Administrator mode), then return remaining RE fluid to refrigerator.

Replacing Consumables

NOTE: Only replace consumables while analyzer is not actively spotting/sampling.

1. First ensure Warming Up, Lamp Warming Up, or Ready to Test, is displayed on the screen.
2. To stop sampling, touch **STOP**.

Replenishing Pipette Tips

1. Touch the image of the tip rack on the display screen to turn carousel.



2. Once carousel stops, remove tip rack.
3. Fill tip rack and replace.
4. Touch **REPLENISH**, then touch **FINISH**.

Replacing Mixing Cups

1. Touch the mixing cup image to turn carousel.
2. Remove used mixing cups from carousel and replace with new mixing cups.
3. Touch **REPLACE** under Mixing Cup to reset the quantity. Touch **FINISH**.

Replacing Diluent

1. Put 1.5 mL of distilled or sterile water into a 1.5 mL Red Top non-heparinized sample tube.
2. Place diluent tube in location labeled "DIL".

Replacing Reference Fluid

1. Pipette Reference Fluid into a 0.5 mL or 1.5 mL Red Top non-heparinized sample tube depending on the reference fluid setting.
2. Place the tube in the location labeled "RE".

IMPORTANT: Replace RE fluid every 12 hours, or sooner if required.



Sample Collection and Handling

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

Heska-Supplied Green Top (lithium heparin) Tubes

NOTE: Use with Heska-provided centrifuge to save a step.

1. Draw patient sample using a 22 gauge needle or larger to minimize hemolysis.
2. To further minimize hemolysis, remove needle from syringe to fill a 0.5 mL or 1.5 mL Heska Green Top tube.

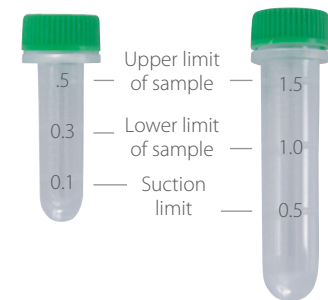
NOTE: Full 0.5 mL Green Top tube—6-test profile plus electrolytes.

Full 1.5 mL Green Top tube—Adequate volume for all available test profiles.

3. Fill sample tube.
To ensure appropriate sample to heparin ratio and proper mixing, fill 0.5 mL tube with at least 0.3 mL (second line) and the 1.5 mL tube with at least 1 mL (second line).

NOTE: When heparin tubes are underfilled, critical chemistry results may be adversely affected.

4. Immediately after filling tube with sample, replace cap and invert tube 5–10 times to ensure proper mixing with lithium heparin and to stop clotting.
5. Spin sample in Heska-provided centrifuge for 3 to 5 minutes.



Harvesting Plasma or Serum

1. Collect sample and separate serum or plasma as you normally would using a green top lithium heparin or a standard Red Top plain tube.

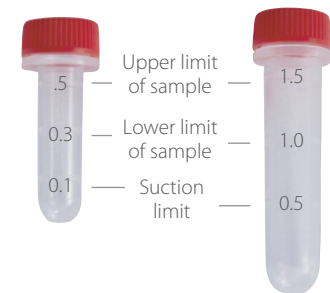
NOTE: For serum samples, allow 15–20 minutes to clot prior to centrifugation for small animals (30–45 minutes for equine/ruminants).

IMPORTANT: Visually inspect sample to ensure there is a fully formed solid clot. If not fully formed, wait an additional 5–10 minutes. If centrifugation occurs prior to full clot formation, there will be fibrin admixed in the serum, which can adversely affect results.

2. Transfer plasma or serum to a 0.5 mL Heska supplied Red Top tube for analysis.

NOTE: Full 0.5 mL Red Top tube—adequate volume for all available tests. The 1.5 mL Red Top tube should only be used if it can be filled to at least the 1 mL mark (second line).

IMPORTANT: It is NOT recommended to use whole blood in the Heska-supplied Red Top tubes for centrifugation. If serum is desired, it is recommended to use another standard tube with no added anti-coagulants to obtain the serum, and then transfer the serum via pipette to the Heska-supplied Red Top tube for use in the chemistry analyzer.



Basic Operation

NOTE: Only load consumables when the analyzer is not actively spotting/sampling. If analyzer is actively spotting, touch **STOP** on the display screen to stop sampling.

Make sure that Ready, Warming Up, or Lamp Warming Up, is displayed before loading samples and slides.

1. Lift front cover.
2. Place slides to be tested, barcode surface down, into slide cartridge and place weight on top. Then place slide cartridge properly into position. A maximum of 20 slides can be loaded.

NOTE: Handle slides by outside edges only and if using an eWrap panel, remove the clear plastic wrap.

NOTE: If also measuring electrolytes, see next section *Performing Electrolytes – ISE Slides* for proper loading of ISE slides.

3. Remove cap from sample tube and place into appropriate sample rack.
4. If measuring electrolytes, load or check/replace RE fluid (see replacing RE fluid section).
5. Close sampler cover.
6. If using Work List, touch the Work List icon and select the desired patient. Touch **OK**. Go to Step 11.
7. If not using Work List, touch **SAMPLE ID**.
8. Input sample ID (Example: 100). Touch **OK** to accept.
9. Touch **ANIMAL** and select desired species.
10. Make sure sample type is set to Plasma/Serum. Touch **OK**.
11. Touch **START**.



Performing Electrolytes – ISE Slides

1. Load ISE slide into slide cartridge with arrows and spotting hole facing up and the arrows pointing right.

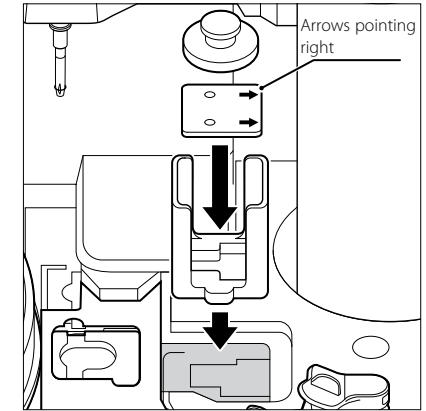
NOTE: Direction of arrows is opposite to the slide transport direction

NOTE: When measuring ISE and CM slides at the same time, we recommend loading the ISE slide last.

2. Load reference fluid. (See prior section *Replacing Consumables, Replacing Reference Fluid.*)
3. Check quantity of pipette tips.

NOTE: Two pipette tips are required to perform electrolytes. Three pipette tips are required if performing CM slides with electrolytes.

4. Follow Steps 6 through 12 of prior section *Basic Operation.*



Interrupting Samples


Touch **STOP** to cancel the test. Display will read, "Please wait a moment". The analyzer will finish sampling the current slide, eject the tip and then stop.

NOTE: Do not open waste disposal drawer during sample processing.

Performing Auto-Dilution of Samples

1. Place new slides of the desired analytes to be rerun with dilution into the slide cartridge, barcode down. Then place weight on slides and place cartridge into position.

NOTE: Only 3 slides can be loaded for dilution at a time.

2. Load diluent (see replacing diluent section).
3. On test results screen, touch (Rerun) .
4. Touch **DILUTION** and select desired dilution factor. It is recommended to choose the lowest dilution factor possible that will produce a result.
5. Touch **OK** to accept.
6. Touch **START** to begin testing.

Calibration

Ensure that Warming Up, Lamp Warming Up, or Ready to Test, is displayed.

- For new slide lot #, insert the QC card into the slot with the QR code facing to the left.

NOTE: Test name and lot #'s appear on the display and will print out. Analyzer will store 5 lots per analyte or panel.

Controls

NOTE: Always wear gloves when running controls.

1. Run HESKA® Chemistry Control solution as you would a patient sample by transferring into a 0.5 mL Red Top tube.
2. On the display screen, select Control for desired species.

Daily Maintenance

1. Keep cover closed except when loading and unloading slides, samples and consumables.
2. Empty waste disposal drawer.
3. Change reference fluid every 12 hours, or sooner if required.
4. Remove sample tubes when finished testing.
5. Clean any spills on the spotting slide transit area.



Element DCX Veterinary Chemistry Analyzer Slides		Quantity Per Box
CAT 6330-ALB	Albumin	24/box
CAT 6330-ALP	Alkaline Phosphatase	24/box
CAT 6330-ALT	ALT (GPT)	24/box
CAT 6330-AMY	Amylase	24/box
CAT 6330-AST	AST (GOT)	24/box
CAT 6330-BUN	BUN	24/box
CAT 6330-CA	Calcium	24/box
CAT 6330-CHOL	Total Cholesterol	24/box
CAT 6330-CK	CK	24/box
CAT 6330-CREA	Creatinine	24/box
CAT 6330-GGT	GGT	24/box
CAT 6330-GLU	Glucose	24/box
CAT 6330-LDH	Lactate Dehydrogenase	24/box
CAT 6330-LIP	Lipase	24/box
CAT 6330-MG	Magnesium	24/box
CAT 6330-NH ₃	Ammonia	24/box + NH ₃ control
CAT 6330-PHOS	Phosphorous	24/box
CAT 6330-TBILI	Total Bilirubin	24/box
CAT 6330-TP	Total Protein	24/box
CAT 6330-TRIG	Triglycerides	24/box
CAT 6330-UA	Uric Acid	24/box
CAT 6330-LYTES	Electrolytes	24/box
CAT 6330-PRESURG/EWRAP	Pre-Surgical Panel (ALP, ALT, BUN, CREA, GLU, TP)	72 slides/box (12 panels/box)
CAT 6330-EQ	Equine Panel (ALB, AST, BUN, CA, CK, CREA, GGT, GLU, LDH, PHOS, TP, T-BILI)	24 slides/box (2 panels/box)
CAT 6330-KIDNEY	Kidney Panel (ALB, BUN, CA, CREA, PHOS, TP)	24 slides/box (4 panels/box)
CAT 6330-LIVER	Liver Panel (ALB, ALP, ALT, GGT, GLU, T-BILI)	24 slides/box (4 panels/box)
CAT 6330-COMP/EWRAP	Comprehensive Panel (ALP, ALT, BUN, CREA, GLU, TP, T-BILI, ALB, PHOS, CA, CHOL, GGT)	72 slides/box (6 panels/box)
CAT 6330-PLUS/EWRAP	Plus Panel (LIP, AMY, MG, TRIG, AST, LYTES)	24 slides/box (4 panels/box)
CAT 6330-COMPPLUS/EWRAP	Comprehensive Plus Panel (ALP, ALT, BUN, CREA, GLU, TP, T-BILI, ALB, PHOS, CA, CHOL, GGT, LIP, AMY, MG, TRIG, AST, LYTES)	108 slides/box (6 panels/box)



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

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www.heska.com

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