



quick steps guide

DRI-CHEM 4000 Veterinary Chemistry Analyzer



DRI-CHEM® 4000 Veterinary Chemistry Analyzer Supplies

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

1. Remove supplies required for testing from refrigerator and warm to room temperature:

- Slides: warm 5 minutes in foil pouch.

NOTE: Remove only those needed for ordered tests.

- Reconstituted HESKA® Chemistry Control: warm 5 minutes.
- Electrolyte Reference Fluid: warm 5 minutes.

NOTE: Fill 0.5-ml Red Top tube; return remainder to refrigerator.



Sample Collection and Handling

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

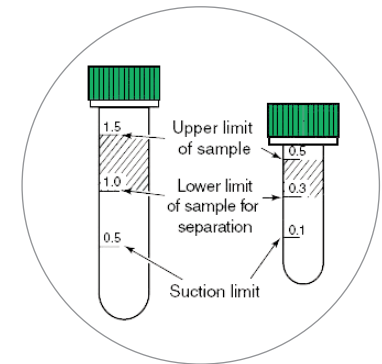
Heska-Supplied Green Top (lithium heparin) Tubes

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

1. Draw patient sample using a 23-gauge or larger needle.
2. Remove needle from syringe to fill a 0.5-ml or 1.5-ml 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 tests.

3. Fill sample tube.
 - 0.5-ml tube: Immediately invert tube 5 to 6 times to ensure proper mixing with lithium heparin.
 - 1.5-ml tube: Fill with at least 1-ml of sample (second line); use standard inversion or rolling to mix.
4. Spin sample in Heska-supplied centrifuge for 3 to 5 minutes.



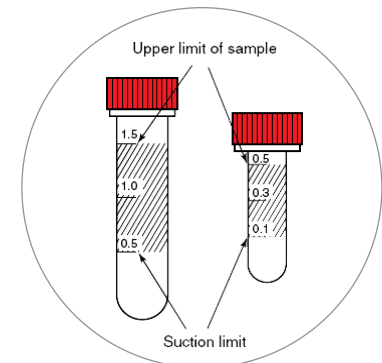
Standard Green Top Lithium Heparin or Red Top Plain Tubes for Harvesting Plasma or Serum

1. Collect sample and separate plasma or serum as you normally would.

NOTE: Red Top tube serum samples: Allow 20 minutes to clot prior to centrifugation (45 minutes for equine blood).

2. Transfer plasma or serum to a 0.5-ml Heska 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).



Basic Operation

NOTE: Handle slides by outside edges only.

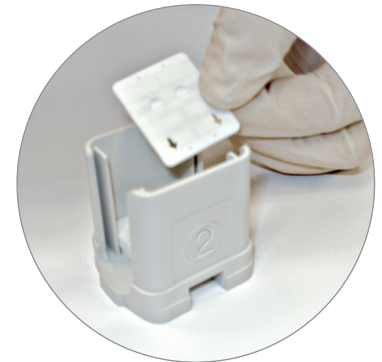
1. Make sure [Ready] is displayed on LCD screen before loading sample and slides.
2. Open Sampler Cover.
3. Remove slide cartridge from analyzer and place on counter top.
4. Place slides to be tested, barcode surface down, in slide cartridge and place weight on top.

NOTE: Electrolytes slide: must be on top or bottom of stack, barcode down, arrows facing right toward "2."

NOTE: If using an e-wrap panel, remove the clear plastic wrap.

5. Place slide rack properly in sample position with #2, matching #2 on analyzer.
6. Remove cap from sample tube and place in sample rack. Select correct sample rack for tube size [0.5-ml or 1.5-ml].
7. Press ID – if No. is displayed, press **ENTER**.
8. Input patient ID (13 characters maximum. Press **ABC** for alpha characters. Use ► and ◀ to scroll).
9. Press **ENTER**, then **REF** to select correct species or control.
10. Select sample type – [PS] (Plasma/Serum).

NOTE: See next page for how to run a sample.



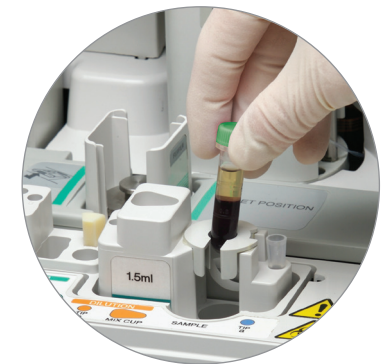
Running Samples

NOTE: Must select correct sample rack for tube size (0.5-ml or 1.5-ml).

1. Place uncapped, spun Green Top or Red Top tube with transferred serum or plasma into the rack. Insert a fresh pipette tip into slot a.
 - For electrolytes: Place uncapped, Red Top tube filled with Reference Solution into the RE slot of analyzer. Place two fresh pipette tips into slots c and d.
2. Close analyzer cover and press **START**.

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

3. When analyzer reads [Ready], the next sample can be loaded and ID/species programmed.
4. Remove current sample and supplies. Discard as infectious waste.



Calibration

This step can be done during warm-up [Warming-Up] or when in [Ready] mode.

- For new slide lot #, insert calibration card into back of card reader on right side of analyzer and pull forward.

NOTE: Test name and lot # will appear on LCD screen. The analyzer will store 2 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 control solution into a 0.5-ml Red Top tube.

Daily Maintenance

1. Keep lid closed except when loading and unloading slides.
2. Empty waste disposal drawer.
3. Change reference fluid every 8 hours. Recap tube between sample runs. Otherwise, change reference fluid every hour.
4. Remove sample tubes when finished testing.
5. Clean any spills.
6. Shut down analyzer every evening, if desired.



DRI-CHEM 4000 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	Plus Panel (LIP, AMY, MG, TRIG, AST, LYTES)	24 slides/box (4 panels/box)



For further assistance, please call Heska's Technical Support Services at 800.464.3752, option 3.