






Urine Specific Gravity: Quick Reference Guide

Quick Guide – Urine SG Refractometer ATAGO POCKET PAL-10S



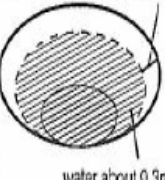


ZERO SET IS PERFORMED PRIOR TO QUALITY CONTROL AND PATIENT TESTING.

Assemble required materials: Distilled Water (DH₂O) 0.5 or 1L (Open expiry one month); Test Tube & Wide tip plastic dropper. FORM A to record. Pour an aliquot of DH₂O into the test tube. Use DH₂O for the Zero Setting and for cleaning the prism between samples.



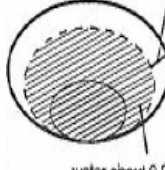


		 water about 0.3ml		
TO CLEAN SURFACE Place 3-4 drops of DH ₂ O onto the prism surface. Wipe clean with tissue. DRY.	FOR ZERO SETTING Place 3-4 drops of fresh aliquote of DH ₂ O onto the prism surface. Use plastic dropper	0.3 mL DH₂O Min. 3-4 drops with wide tip plastic dropper will give you the minimum volume of 0.3 mL	Press START. "----" Displays with measured value & temperature. If display is "1.000" Zero Set not required.	Press ZERO KEY if Display is NOT "1.000" Instrument will reset. Repeat with fresh DH ₂ O

UQC IS PERFORMED: DAILY WITH PATIENT USE. WEEKLY WHEN NOT IN USE.

Both QC Levels are within documented range before proceeding to patient testing. Record all values on FORM A. Refer to Trouble Guide when QC not within documented acceptable range for QC Level and current expiry date.

		 water about 0.3ml		
Clean Prism Surface ZERO SET confirmed.	BioRad QC Solution Level 1 & Level 2. Open vial expiry 3 months Mix vial well before use.	0.3 mL of Level 1 Add 3-4 drops from vial	Press START. "----" Displays with measured value & temperature.	Record displayed value for Level 1. Clean. Repeat with Level 2.

PATIENT TEST – Clean prism after each patient test.

		 water about 0.3ml		
Clean Prism Surface with DH₂O. ZERO SET & QC okay	Patient sample in a clean catch container, test tube or syringe.	0.3 mL of patient urine Add 3-4 drops with wide tip plastic dropper or syringe	Press START. "----" Displays with measured Patient Urine SG value & temperature.	Record patient Urine Specific Gravity with date & time on chart and FORM B.

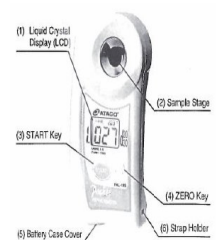
Instrument Cleaning & Precautions

- Clean with DH₂O.
- Disinfect with 2%Chlorhexidine & 70% Isopropyl alcohol prep pad or Caviwipes (Metrex). Use a 2nd wipe to disinfect surface. Wipe Dry.

Caution: Do not scratch prism surface.

Instrument Parts

1. Liquid Crystal Display – measured value, temperature, error codes & battery indicator.
2. Sample stage with measuring prism.
3. START KEY – to begin measurement or to turn OFF.
4. ZERO KEY – Press to perform Zero Set.
5. Battery Case Cover – 2 x 1.5V AAA.



Medical Approval: Dr Benjamin Jung

Version: 1.1

Folder Name: CW\Point of Care\Urine Specific Gravity








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Medical Approval Date: 28 Dec 2016


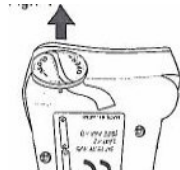
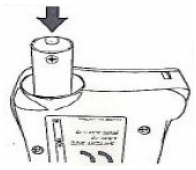
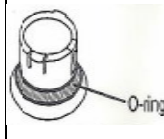
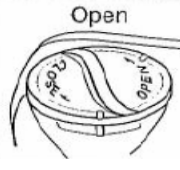
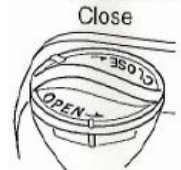
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6. Strap Holder – not used at C&W.

TROUBLESHOOTING GUIDE – ATAGO POCKET PAL-10S

Problem				
Cause	No DH ₂ O on prism Substance other than DH ₂ O used for Zero Set	Insufficient amount of sample on prism surface for measurement	Battery power is low.	Sample measured value is higher than measuring range of 1.060 SG.
Solution	Clean prism surface Use DH ₂ O for Zero Set	Add sample for 0.3mL minimum volume	Replace batteries. 2 x 1.5 V AAA	Clean prism surface. Repeat analysis.
Problem				BIO RAD qUANTify QC Level 1 or Level 2 Not within acceptable QC range for Level or current Lot #. Open vial expiry >3months
Cause	Temperature too low. < 10°C	Temperature too high. > 35°C	QC Level > 3 months open expiry Cap not on QC vial, insufficient quantity on prism.	
Solution	Measure sample between 10-35°C	Measure sample between 10-35°C	Repeat QC analysis if insufficient quantity. Obtain new QC vials from POCT Technologist if open vial expiry exceeded or CAP not on Vial.	

BATTERY CHANGE – Loaner Refractometer available from POCT / LAB.
REFERENCES

					
Battery Change indicated with Error Message	Remove the battery case cover from bottom of refractometer. Turn cover to open.	Remove batteries. Insert 2 x 1.5 V AAA batteries. Refer to diagram on refractometer.	Check that the O-Ring is clean before replacing the battery case cover.	Check that the O-Ring is clean before replacing the battery case cover.	Place the battery case onto the refractometer. Press downwards. Turn until it stops.

For Assistance contact the Charge Nurse (24 hr) or RN Educator / POCT Technologist M-F

For a replacement PAL 10S Digital Refractometer, or additional supplies contact:

- **M-F Point of Care Technologist Room 2J8. 604-875-2345 ext: 7521 Pager: 41-02190**
- **Off hours, weekends & holidays – Chemistry Lab Technologist Room 2J17– ext: 7820**

ATAGO Instructions of Urine Specific Gravity Refractometer URIVON-Ne
Textbook of Clinical Chemistry. Norbert W.Tietz 1986 WB Saunders

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REVISION & APPROVAL LOG

Version	Revision Type	Description of Change	Revision Date	Technical Approval	Medical Approval
1.0		New document	Feb 2014	Elvira Kozak	Dr. Cathy Halstead
1.1	Minor	Document title and number change. Upload to QMS document control	28 Dec 2016		Dr. Benjamin Jung

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