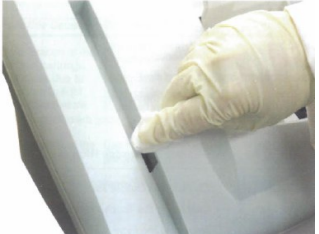
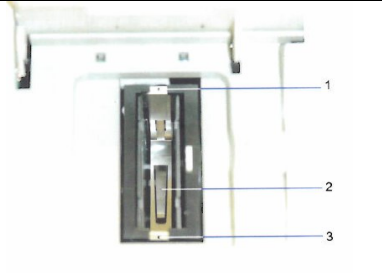
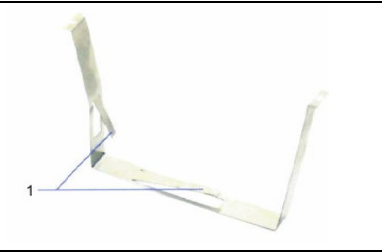
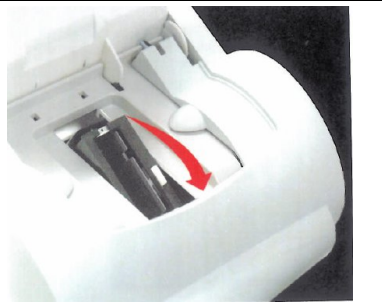




DCA Vantage HbA1C: Appendix E - Instrument Maintenance



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|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Maintenance Schedule (for support, contact POCT Technologist email POCTLab@cw.bc.ca local 7521) | |
| Daily | As Needed |
| Clean the exterior | <ul style="list-style-type: none"> • Changing the Printer Paper • Calibrating the Touchscreen • Replacing the Fuse |
| Monthly | |
| Clean the Barcode Window | |
| Quarterly – Point of Care Technologist | |
| Clean the cartridge compartment. | |
| Change the Air Filter | |
| Running the Optical Test | |
| Caution: Turn power OFF and disconnect the power cord before any maintenance activities. | |

| | |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Daily | |
| Clean the Exterior | |
| Materials | <ul style="list-style-type: none"> • Lint-free tissue or cloth. • Water, ethanol • Disinfectant prep pad - 70% Isopropyl Alcohol. • Disinfectant wipes - Caviwipes (Metrex Research) |
| Procedure | <ol style="list-style-type: none"> 1. Instrument is turned OFF. 2. Clean the exterior with lint-free tissue or cloth dampened with water or disinfectant prep pad, wipe. 3. To Disinfect, use a second disinfectant prep pad or wipe over the surface. 4. Dry with lint-free tissue or cloth. 5. The instrument can be turned ON once the exterior is clean and dry. |


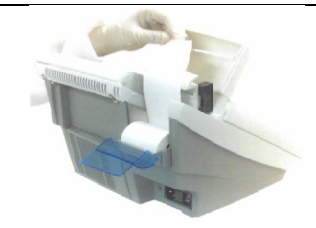

| | | |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Monthly – Chemistry or Point of Care Technologist | | |
| Clean the Barcode Window | | |
| Materials required | <ul style="list-style-type: none"> • Lint-free tissue or cloth. • Water, ethanol, or disinfectant prep pad (70% Isopropyl Alcohol). • Caviwipes (Metrex Research) | |
| Procedure |  | <ol style="list-style-type: none"> 1. Clean the barcode window with lint-free tissue or cloth dampened with water, ethanol, or with disinfectant prep pad. 2. Dry with lint-free tissue or cloth. 3. The instrument can be turned ON once the exterior is clean and dry. |

| Quarterly | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cartridge Compartment – Chemistry or Point of Care Technologist | |
| Materials required | <ul style="list-style-type: none"> • Lint-free tissue or cloth; sponge swab. • Mild detergent. • Water, ethanol, or disinfectant prep pad (70% Isopropyl Alcohol). • Caviwipes (Metrex Research) • Paper clip or similar device. |
| Procedure | <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">  <p>1 Top Hole 2 Leaf Spring 3 Bottom Hole</p>  <p>1 Leaf Springs</p>  </div> <div style="width: 50%;"> <p>Clean the cartridge compartment:</p> <ol style="list-style-type: none"> 1. Completely open the cartridge compartment door. 2. Wipe the inside surface of the compartment door and surfaces on both sides of the compartment with lint-free tissue or cloth dampened with water, ethanol or a disinfectant pre pad. 3. Dry the surfaces with tissue or cloth. <p>Remove the cartridge return spring:</p> <ol style="list-style-type: none"> 1. Insert the tip of a straightened paper clip into the top hole on the spring and gently pull towards the center to release one side of the spring. 2. Repeat to release the other side of the spring from the cartridge holder. 3. Completely remove the return spring. 4. Clean and disinfect the return spring with mild detergent and water followed by ethanol or 70% isopropyl alcohol prep pad. <p>Clean the cartridge compartment:</p> <ol style="list-style-type: none"> 1. Use a clean, dry, sponge swab (provided in the Cleaning Kit) and remove any liquid from the cartridge holder. 2. Rotate the cartridge holder with the compartment door partially closed if there is any spilled liquid. 3. Dampen a sponge swab with water or ethanol to clean. Rotate the cartridge holder as necessary. 4. Repeat with a dry sponge swab to dry the interior. <p>To lower the leaf spring back into the system compartment:</p> <ol style="list-style-type: none"> 1. Locate the vertical grooves inside the cartridge compartment. 2. Locate the front and back slots near the top and bottom of the compartment. 3. Orient the leaf spring toward the back of the system. 4. Pinch the top and bottom together and lower the spring into the system. 5. Release the spring and gently insert the edges into the top and bottom slots. </div> </div> |
| <p>Caution: Do not allow liquid to drip off the sponge swab into the system to avoid damaging the optics.</p> | |

| Changing the Air Filter – Chemistry or Point of Care Technologist | | |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials | <ul style="list-style-type: none"> Air filter – obtain from Complex Chemistry, Pathology | |
| Procedure |  | <ol style="list-style-type: none"> 1. Locate the filter at the back of the DCA. 2. To remove the filter holder, pull the holder off from the top. 3. Discard the old air filter. 4. Clean the air filter holder with mild detergent. 5. Place the new air filter into the filter holder. 6. Replace the filter holder back on the DCA. |
| |  | |

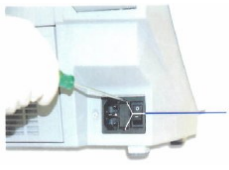

| Running the Optical Test – Chemistry or Point of Care Technologist | | |
|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials | <ul style="list-style-type: none"> Optical Test Cartridge <p>Note: The optical test cartridge is reusable, do not discard.</p> | |
| Procedure |  | <ol style="list-style-type: none"> 1. Locate the barcode on the optical test cartridge. 2. Hold the cartridge so that the barcode faces right. 3. Insert the cartridge into the barcode track and quickly slide the cartridge down past the dot. 4. Beep sounds with a successful scan. 5. Open the cartridge compartment door. 6. Hold the optical test cartridge with the barcode on the right and insert until a snap is heard or felt. 7. Close the door. Test runs for 6 minutes. 8. Print the results. 9. Open the compartment door to remove. 10. Locate the button on the right side of the cartridge compartment. Push down on the button and hold. 11. Gently push the plastic tab on the cartridge to the right of the cartridge compartment. 12. Pull the cartridge up to remove. 13. Close the compartment door. 14. Document date, time, Mean Transmittance, Standard Deviation Transmittance, and Drift values. 15. Place report onto Optical Test Record Sheet. |
| |  | |
| | <p>Report Transmittance:</p> <p>Mean T</p> <p>Standard Deviation T</p> <p>Drift T</p> <p>Drift Max</p> | |

Changing the Printer Paper

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|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials | <ul style="list-style-type: none"> • Printer Paper <p>Note: Ensure DCA is at the Home Screen.</p> | |
| Procedure |  | <ol style="list-style-type: none"> 1. Turn DCA to access the back. 2. Use tab to lift the paper cover up. 3. Lift the paper feeder up. 4. Push the blue plastic paper cover down. 5. Tear the paper between the roll and the printer. 6. Remove the core and any remaining paper. 7. On left side, lift the dark gray lever to raise the paper guide. 8. To remove paper, carefully pull paper in paper guide out in the normal direction of travel. 9. Obtain a new roll and unroll sufficient paper. 10. Hold roll with paper unrolling from underneath. 11. Push paper under the roller and up at the back of the printer into the paper feeder. 12. Push the plastic tab to cover the paper and pull the paper feeder down. 13. Lower the gray paper release lever and push down. Paper is now set in the paper feeder. 14. Load the paper into the paper slot on the cover. 15. Close the cover. |
| |  | |
| |  | |
| <p>Caution: Have the DCA Vantage OFF and unplugged at all times while performing maintenance activity.</p> <p>Be careful of electrostatic charges when touching the DCA.</p> <p>Be careful when touching the printer. Printer may be hot.</p> | | |

Calibrating the Touchscreen – Point of Care Technologist

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|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Calibrate the touchscreen if it does not respond correctly when you touch the screen | |
| System Test Menu | Select [Calibrate Touchscreen]. |
| Procedure | <ol style="list-style-type: none"> 1. Touchscreen Calibration screen displays. 2. Select the [X] target at the center of the screen. 3. Repeat when prompted until Touchscreen Calibration is complete. |
| <p>Note: The [X] target will display repeatedly until the system has completed the calibration cycle.</p> | |

| Replacing the Fuse – Point of Care Technologist only | |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials | <ul style="list-style-type: none"> • Flathead Screwdriver • 250 V, T-125 A Fuse |
| Procedure | <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;">  <p>1 Top & bottom grooves</p> </div> <div style="flex: 1;"> <ol style="list-style-type: none"> 1. Locate the groove on the top of the fuse holder. 2. Insert the tip of the screwdriver into the groove. 3. Exert pressure to unsnap the top of the fuse holder. 4. Repeat steps for the bottom groove. 5. Remove the fuse holder from the system. 6. Remove and discard blown fuses from the fuse holder. 7. Insert the new spare fuses into the fuse holder. 8. Insert the fuse holder into the system. </div> </div> <div style="margin-top: 10px;">  <p>1 & 2 Fuses 3 Fuse Holder</p> </div> <div style="margin-top: 10px;"> <p>Note: Fuses are removed when indicated as required. Notify Supervisor or Point of Care Technologist of any error messages, email POCTLab@cw.bc.ca local 7521.</p> </div> |

REFERENCES :
DCA Vantage Analyzer Operator’s Guide REF 06489264 Rev. B,2008-06

REVISION & APPROVAL LOG

| Version | Revision Type | Description of Change | Revision Date | Technical Approval | Medical Approval |
|---------|---------------|------------------------------------------------------------------|---------------|--------------------|--------------------|
| 1.0 | | New document | 31 Dec 2013 | Elvira Kozak | Dr. Cathy Halstead |
| 1.1 | Minor | Document title and number change. Upload to QMS document control | 28 Dec 2016 | | Dr. Benjamin Jung |
| 1.2 | Minor | Added POCT contact, reformatted | July 1, 2019 | Calvin Lee | |

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