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| **IH-500 Maintenance** | | | | | | | |
| **Purpose** | This procedure provides instructions for performing maintenance on the IH-500 to ensure that is properly maintained. | | | | | | |
| **Policy Statements** | * Perform the maintenance work according to the instructions. Carefully read the steps described before carrying out any operation. * When any resource is removed, on-board time management is no longer traced by the system. * IH-500 unloads all reagent vials and sample racks. If reagent vials are reloaded, check their integrity before reusing them. * A Quality Control Check (QC) must be performed after any maintenance operation. | | | | | | |
| **Related Documents** | TSf 17.43.1 IH-500 Maintenance Form | | | | | | |
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| **Materials** | **Equipment** | | | **Reagents** | | | **Supplies** |
| * IH-500 | | | * Microcide SQ * DI Water | | | * 70% Ethanol |
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| **Procedure** |  | | | | | | |
|  | **Step** | Action | | | | | |
| Daily | 1 | Check and clean the outer surfaces of the instrument with a suitable disinfectant, if needed. | | | | | |
|  | 2 | Check and clean the outer surfaces of the instrument, the hand-held barcode scanned, and touch screen with a link-free cloth soaked in 70% ethanol. | | | | | |
|  | 3 | Complete form TSf 17.43.1 IH-500 Maintenance Form | | | | | |
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|  | **Step** | Action | | | | | |
| Weekly | 1 | When the weekly maintenance alarm appears on the main screen, launch the maintenance procedure as soon as possible. No testing can be performed until maintenance is completed. | | | | | |
|  | 2 | Login with required user rights. | | | | | |
|  | 3 | Select **MENU** (header strip). | | | | | |
|  | 4 | Select “Stop all” to stop all processes running on the instrument.     1. All tests in progress are canceled. 2. Open the solid waste area door. 3. Remove the cleaning liquid container from its storage area. 4. Unscrew the cap and remove the black cap assembly. 5. Empty any remaining solution present following local waste procedures. 6. Rinse container. 7. Prepare cleaning liquid solution (if necessary before beginning). Cleaning liquid solution is 2 liters of deionized water and 8 mL of Microcide SQ. This solution is stable for 7 days. 8. Tighten the cap on the container.     1.Solid waste door  2.Cleaning liquid container  3.Black cap  4.Tubing | | | | | |
|  | 5 | Select **MAINTENANCE**     1. A maintenance screen is displayed      1. Verify that there is no leakage around the liquid containers. 2. The left pane displays the estimated time to complete the weekly maintenance procedure. 3. Follow the on-screen instructions as follows below:    1. Open the solid waste area (5) and containers door (1)    2. Disconnect and remove the right system liquid container (4) with the blue cap.    3. Empty both LIQUID WASTE containers, rinse with cleaning liquid and reconnect them.    4. Select next.    5. Connect the CLEANING LIQUID container in position #1 of the system liquid container. 4. Select NEXT when done, the screen indicates Step 1 is completed. 5. Follow onscreen instructions to disconnect the cleaning liquid container and connect it in position #2 on the system liquid 6. Select NEXT when done. The screen indicated Step 2 is completed. 7. Follow ON screen instructions:    1. Disconnect the CLEANING LIQUID container and move to the storing area (5).    2. Ensure both SYSTEM LIQUID container (4) are full.    3. Connect both SYSTEM LIQUID containers. 8. Select NEXT when done. The screen indicates Step 3 is completed. 9. Select FINISH to close the Screen. 10. Weekly Maintenance has been completed.     1. Select MENU     2. Select INITIALIZE INSTRURMENT     3. Perform QC | | | | | |
|  | 6 | Open up the Maintenance Report folder on the IH-Com desktop and drag a copy of the completed maintenance report into the Weekly Maintenance Reports folder also on the desktop. | | | | | |
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| As Needed Maintenance | 1 | Login with the required user rights | | | | | |
| Needle Cleaning/Change | 2 | Select MENU | | | | | |
|  | 3 | Select STOP ALL, then YES to confirm. All tests in progress are canceled. | | | | | |
|  | 4 | Select **CHANGE PIPETTE NEEDLE** as the answer next to “Do you want to change the needle?’ | | | | | |
|  | 5 | Select ***Next*** to confirm change of the needle. | | | | | |
|  | 6 | Select ***Next***. *The pipetting area door unlocks* | | | | | |
|  | 7 | Follow on-screen instructions:   * open the pipetting area door (1); * check sample racks are removed or in the locked position prior to open-ing. * place a tissue under the pipette needle tip before disconnecting the tub-ing as it drips; * disconnect the pipette needle (3) from the tubing by unscrewing the red connector (4); * open both locks (5) by turning counter clockwise; * remove the pipette needle from the housing (6); * remove the sampling needle from its packaging; * position the new pipette needle (3) in its housing (2). * tighten the tubing connector (red) (4) on the pipette needle (3). Turn it gently clockwise till you hear a click; * lock the needle by turning the two locks clockwise (5);   *With the locks closed, the pipette needle is connected and locked in position on its pipettor Z axis support.*   * clean the pipette needle reference position with a lint-free cloth soaked in 70% ethanol; | | | | | |
|  | 8 | Select ***Next***. | | | | | |
|  | 9 | Select ***Next*** to validate the needle replacement | | | | | |
|  | 10 | Select ***Finish*** to close the screen. | | | | | |
|  | 11 | Select ***MENU***. | | | | | |
|  | 12 | Select ***INITIALIZE INSTRUMENT***. **IH***-500 unloads all reagent vials and sample racks and the system initializes.* | | | | | |
|  | 13 | Perform a QC run after a change pipette needle. | | | | | |
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| **References** | 1. IH-500 User Manual NA V1.0-07/2017, Chapter 10 | | | | | | |
| **Approval**  **Workflow** | Transfusion Service/Lab Director | | | | | | |
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| **Historical Record** | **Version** | | **Written/Revised by:** | | **Effective Date:** | **Summary of Revisions** | |
| 1 | | S. Cassidy/J.Hudgens | |  | Initial Version | |