**Purpose:**

To assure that the TANGO is maintained according to the User’s Guide and the manufacturer’s recommendations.

**Required Materials:**

* + - * Tango Maintenance Form
* DI Water
* New Suspension Cup
* Disinfectant
* USB Storage Device

**Procedure:**

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| --- | --- | --- |
| **Step** | **Action** | **Related Documents** |
| **Preparation** | | |
| 1 | Obtain the Tango Maintenance form, record a check mark as each task is completed and enter initials in the last box. | TANGO Maintenance form |
| 2 | Empty, clean and refill DI water and unbuffered saline squirt bottles.   * Label bottles with contents, date prepared, expiration date, and tech ID |  |
| **Monthly database backup** | | |
| 3 | Perform monthly database backup | Monthly Database backup & accessing backup results |
| **Check Pipettor Needle position** | | |
| 4 | On the Main Menu, select Maintenance / Teach Coordinates. |  |
| 5 | The two pipetting needles will move to the front corners of the instrument. |  |
| 6 | The middle of the screen will show a schematic representation of all the “teaching positions” for the needles.   * A rectangle below the schematic will read “Device Initializing”. * Wait until the message changes to “Please select area to adjust”.   NOTE: DO NOT change any settings in the “Teach Coordinates” program for other reference positions other than the Right and Left Pipettor Needles. Changing the other coordinates may cause the needles to crash and damage the instrument. |  |

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| **Step** | **Action** | **Related Documents** |
| **Check Pipettor Needle position (cont)** | | |
| 6 (cont) | * Select the green ‘Ref Left’ button. * The left needle will move to a position over the reference position. * The teaching window will open in the center of the screen. * Use the left shift 4xs (each time goes down 1/2 the distance, then 1/2 again, etc) then your page up and down keys. * The needle will move down to its reference position. * The needle should be directly over the small white cavity in the center of the reference position and flush with the top edge of the reference point.   NOTE: A single sheet of standard copy paper should be able to be placed between the needle and the reference position. |  |
| 7 | * Check needle position. * If the needle is not properly positioned: * Verify that the needle is not bent. If it is, it may be gently straightened. * If alignment is slightly off (3-4 mm) adjust the X, Y and Z axis. * The arrow keys on the keyboard control the X-axis (left/right) and the Y-axis (front/back). * The “PgUp” and “PgDn” keys control the Z axis. * If alignment is off more than slightly, contact Technical Support. |  |
| 8 | * Once the left needle is properly aligned, select OK from the screen to save the coordinates and close the teaching window. * Select the ‘Right Ref’ button. * The right needle will move to a position over the reference position. * The teaching window will open in the center of the screen. * Follow steps E.3.d-f above.   Select the ‘Quit’ button to close the ‘Teach Coordinates’ window and return to the TANGO program. |  |
| 9 | Turn TANGO and TANGO computer off   * To turn off: Turn off the computer then turn off the Tango. |  |
| **Replace Suspension Cup and Inspect the Splash Bowl** | |  |
| 10 | Remove acrylic glass cover and remove the gray plastic cover above the suspension cup. | TANGO Removing the instrument covers |
| 11 | Remove the cup by pulling straight up from the top. |  |
| 12 | Wipe the inside of the splash bowl with gauze or paper towel. |  |
| 13 | Remove the plastic splash bowl and inspect it for cracks or breaks. Inspect the seal “O” ring for loss of integrity.   * If there are cracks or breaks or the seal has lost integrity, replace with a new splash bowl. * If no cracks or breaks are present and the seal is intact, clean the splash bowl with 10% bleach solution or other disinfectant used in the lab. |  |
| **Step** | **Action** | **Related Documents** |
| **Replace Suspension Cup and Inspect the Splash Bowl (cont)** | | |
| 14 | Rinse the cleaning solution from the bowl or wipe with a cloth moistened with DI water and then dry the bowl.   * Ensure that the splash bowl is completely dry and that no liquid escapes the splash bowl. * The electronics or motor may be damaged by exposure to liquids. * Residual cleaning solution left in the cup may lead to hemolysis. |  |
| 15 | Replace the splash bowl. |  |
| 16 | Insert a new suspension cup from the top, ensuring that the new cup is completely seated on the hexagon motor axis. |  |
| 17 | Clean the gray plastic cover with DI water, dry completely and place it over the cup. |  |
| 18 | Reinsert the Acrylic Glass Cover. |  |
| 19 | Turn on the TANGO.   * To turn on: Turn on the Tango first and then turn on the computer. |  |
| 20 | Perform ABO/Rh and antibody screen QC after completion of monthly maintenance | Tango ABO/Rh antibody screen QC |

**Referenced Documents**

TANGO User Guide, Version 3.3