

	<b>BIO-PM 4.23 Maintenance of the Qiagen QIASymphony SP</b>	
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	Document Manager: Kristin Schelling	Approved By: Jeffrey Nye

## 4.23 Maintenance of the Qiagen QIASymphony SP

### 4.23.1 Regular Maintenance (After each run):

#### 4.23.1.1

The consumables (rod covers, sample prep cartridges and pipette tips) shall be replaced as needed.

#### 4.23.1.2

If a unit box is full, the solid waste (used rod covers and sample prep cartridges) shall be sealed and discarded into the biohazard bin.

#### 4.23.1.3

Empty the liquid waste into the designated hazardous waste disposal container.

#### 4.23.1.4

Check the tip guards and clean with a "Super Sani-cloth Germicidal Disposable Wipe" or similar product.

**NOTE: Do NOT use bleach**

#### 4.23.1.5

Check the Magnetic-head (MH) guards. If necessary, clean before starting a new run. (Reference to section 9 on page 9-6 of the QIASymphony SP/AS User Manual- General Description)

Open the "Maintenance SP" menu and run the service protocol "Magnetic head guards." Gently raise the catches to release the magnetic-head guards.

Wipe the MH guards with the "Super Sani-cloth Germicidal Disposable Wipe" or similar product. Open the "Maintenance SP" menu and run the service protocol "Open magnetic head guards."

### 4.23.2 Daily Maintenance:

#### 4.23.2.1

Remove the reagent cartridge(s) and seal the reagent wells and magnetic bead trough using the reusable plastic seal set included in the QIASymphony DNA Investigator Kit. If not already done, label the plastic seals with the corresponding reagent number and mark the date the cartridge was opened. ***\*\*The cartridge expires two weeks after it has been opened.\*\****

#### 4.23.2.2

Remove all remaining plastics (rod covers, sample prep cartridges, and pipette tips) and the TopElute bottle and place its cap on for storage.

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#### 4.23.2.3

The tip disposal bag shall be replaced when full and placed into the biohazard bin.

#### 4.23.2.4

If a unit box is full, the solid waste (used rod covers and sample prep cartridges) shall be sealed and discarded into the biohazard bin.

#### 4.23.2.5

Empty the liquid waste into the designated hazardous waste disposal container.

#### 4.23.2.6

Clean all interior surfaces, the MH guards, tip guards, robotic handler weight, and the removed objects (elution tube adapters and sample tube carriers). Wipe all of the above with the “Super Sani-cloth Germicidal Disposable Wipe” or similar product.

**NOTE: Do NOT use bleach**

#### 4.23.2.7

UV the QIASymphony for 60 minutes. From the main menu, go to the Maintenance screen. Press the “Start UV Light” button, change time to 60 minutes and press “Enter” to start the UV procedure.

### 4.23.3 Weekly Maintenance:

#### 4.23.3.1

The following components shall be removed, soaked for 15 minutes in Conflikt disinfectant or a similar solution, rinsed with water and dried off with a paper towel:

1. Tip guards
2. Sample tube carriers
3. Sample tube inserts
4. Elution tube adapters
5. Tip park station
6. Tip disposal chute
7. Liquid waste bottle

#### 4.23.3.2

The conveyor tray shall be checked and if necessary be removed to be soaked for 15 minutes in Conflikt, rinsed with water and dried off with a paper towel.

#### 4.23.3.3

The touch screen and hood shall get cleaned with deionized water. Do NOT use an acidic or basic solution, or one that contains alcohol, that is caustic on the hood. The hood will crack over time if these solutions are used.

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## 4.23.4 Monthly Maintenance:

### 4.23.4.1

The o-rings shall be replaced monthly.

- Slide the new O-ring over the small end of the peg on the O-Ring tool.
- Push the gray lever all the way to the black stop and insert the small end of the peg into the hole between the stop and the lever.
- Press the peg down using the one end of the tweezers until the O-Ring slides up to the larger end of the peg, and then open the gray lever.
- Insert the small end first into the hole on the O-Ring tool.
- In the “Main Menu” screen, press “Service SP” and select the script: “ChangePipettingChannelORing.lua,” and then press “Start.”
- Follow the instructions displayed on the screen
- When the pipetting channel is moved to the cut position turn the gray lever counterclockwise, this cuts the O-Ring.
- Grip the O-Ring end with the tweezers and then open the gray lever and remove the O-Ring and any remaining pieces of the O-Ring from the tip-adapter.
- Continue the protocol on the screen and then remove the O-Ring tool from the QIASymphony

## 4.23.5 Annual Maintenance:

### 4.23.5.1

Preventative maintenance shall be completed annually by a Qiagen-certified service engineer.

### 4.23.5.2

Service required to repair the robotic platform shall be performed by a Qiagen-certified engineer.

### 4.23.5.3

Following preventative maintenance and repair or service, a performance verification of the instrument operation shall be completed prior to use in casework.

## 4.23.6 Performance Verification

The purpose of this procedure is to evaluate the performance of the Qiagen QIASymphony® SP instrument prior to use in the extraction and purification of casework samples.

Annually and after a repair, a performance verification of the instrument operation shall be completed prior to resuming use in casework. The performance verification shall include the purification and collection of four Internal Laboratory Controls (ILCs) and four reagent blanks, alternating in position. The performance verification shall be conducted using the Qiagen DNA Investigator Kit and the CW500\_ADV\_HE\_CR21380 ID1710 protocol. The samples shall be carried through the entire DNA process and evaluated for completeness of the DNA profile in the ILCs and cleanliness (free of

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contaminating types) of the reagent blanks. The performance verification shall be approved by the unit supervisor, or their designee, and supporting documentation shall be retained for future review and/or inspection as per accreditation requirements.