



Intermountain Forensics

SOP #

MNT-201

Revision #

01

Forensic DNA Technical Leader Approval

Issue Date

05/19/20

Qiagen EZ1 Advanced XL Instrument Maintenance

1. Purpose

This document explains the maintenance procedures for the Qiagen EZ1 Advanced XL (EZ1) instrument.

2. Summary

Procedures given for the Post-Run, Daily, Weekly, and Monthly maintenance for the EZ1 instruments.

3. Procedure

Maintenance:

Post Run Maintenance:

Clean the piercing unit of the pipettor head:

1. Press **2** in the main menu to select the manual function.

```
01 Apr 2017 10:30
START: Run
1: UV 2: Man
3: Test 4: Setup
```

The manual operation screen appears.

```
MANUAL OPERATION
1: Home 2: Return Tip
3: Clean 4: Resend
ESC: Back
```

2. Press **3** to choose the "**Clean**" operation. The following screen appears:

```
MANUAL OPERATION
Clean piercing unit
START: Run
ESC: Back
```

3. Press **START**.
The EZ1 will lower the piercing unit. The following screen appears:

```
MANUAL OPERATION
Open door and clean piercing unit
ENT: Done
```

4. Open the EZ1 door and wipe the piercing unit using a soft tissue moistened with ethanol. The piercing unit is sharp. Wipe the piercing unit with a soft tissue moistened with distilled water.



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5. Close the EZ1 door and press **ENT**. The piercing unit returns to its original position and the manual operation screen appears.

MANUAL OPERATION
1: Home 2: Return Tip
3: Clean 4: Resend
ESC: Back

Note: If you press **ENT** while the EZ1 door is open, an error message appears.

6. Press **ESC** to return to the main menu.

01 Apr 2017 10:30
START: Run
1: UV 2: Man
3: Test 4: Setup

7. Open the EZ1 door. Clean the tray and racks with ethanol and then with distilled water.
8. Clean the EZ1 worktable with ethanol and then with distilled water.
9. Wipe the surface of the instrument and the blue door using a soft tissue moistened with ethanol.
10. At the end of a protocol run, a display message will give you the option of starting a UV decontamination run. Alternatively, you can start a UV decontamination run manually by switching on the UV lamp as described below.

Switching on the UV lamps:

1. Make sure that the EZ1 door is closed.

01 Apr 2017 10:30
START: Run
1: UV 2: Man
3: Test 4: Setup

2. In the main menu, press **1** to select the UV light function. The following screen appears:

Decontamination
Set Time: 30 min.
Key: 0-9
ENT: Next ESC: Abort

3. Use the keys 0 through 9 to set the duration of the decontamination time to 20 minutes. (Pressing ESC will cancel the procedure and return you to the main menu.)
4. Press the **ENT** key. The following menu appears.



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UV Decontamination
Time: 20 min.
START: Run ESC: Back

5. Press **START** to switch on the UV lamp. The worktable will move slowly back and forth under the UV light.
6. At the end of the run, the following screen appears.

Decontamination
UV lamp cooling
Please stand by

After cooling, the main menu appears and the next run can be started.

Daily:

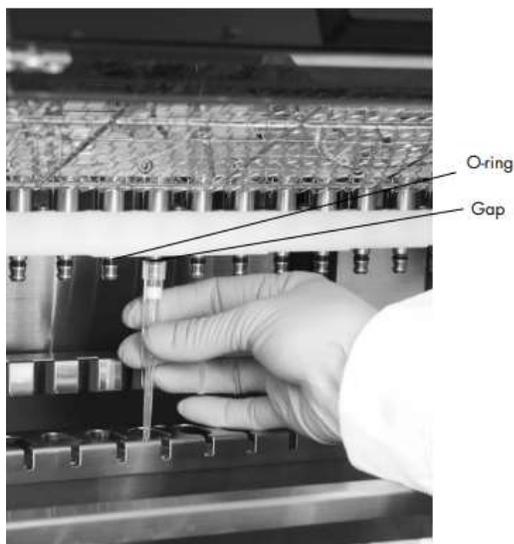
After running the last protocol of the day, wipe the O-rings of the tip adapters with a lint-free tissue.

Weekly:

To maintain good contact between tip adapters and filter-tips and to prevent liquid leaking from the tips, grease the O-rings of the tip adapters every week:

1. Apply a small amount of silicon grease to the end of a filter-tip.
2. Apply the silicon grease to the surface of the O-rings.
3. Place the tip onto the pipettor head and rotate the tip on the pipettor head to distribute the silicon grease evenly.

Note: The filter-tips should sit flush against the upper white plastic bar if the O-rings are properly greased. There should not be a gap. Excess or insufficient grease can affect the performance of the EZ1.





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A handwritten signature in black ink, appearing to read "Dany...", is placed over a light gray rectangular background.

05/19/20

4. *References*

EZ1® Advanced XL User Manual

5. *Definitions*

N/A