GeneXpert® Maintenance

2013

Maintenance of GeneXpert is Easy

- **Preventive maintenance tasks:**
  - Performed on regular basis by end user
  - Ensure good performance of the system
  - Avoid problems of malfunction

- **On request maintenance tasks:**
  - Performed in specific situations
  - upon request by Cepheid representative
  - Allow to check/reset one or several functions

Dedicated Menu in GeneXpert Dx Software

Preventive Maintenance: Tasks / Frequency

- **Daily Maintenance:**
  - Discard used cartridges
  - Put the dust cover when the system is not in use to limitate dust.

- **Weekly Maintenance:**

  - **Clean the cartridge bay interior**
  - Restart the system (GeneXpert and Computer)

- **Monthly Maintenance:**
  - Clean the syringe plunger rod
  - Clean the instrument surfaces
  - Clean the fan filters with soapy water (only for GX with white cover)
  - Archive the results and save it on external support

- **Yearly Maintenance or after 2000 tests/module**
  - Calibrate all modules once a year or every 2000 tests/module whichever comes first

Cepheid®

Required tools/products

- **10% sodium hypochlorite solution (prepared within 1 day)**

- **70% ethanol or isopropyl alcohol solution**

- **Lint-free wipes / non-cotton swabs**

- **Disposable gloves**
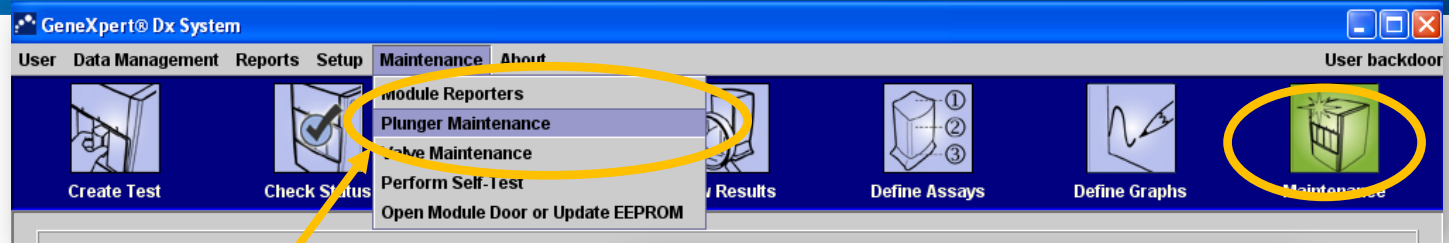
- **Clean water and Soap**

- **Eye protection**

- **Replacement fan filters (available upon request)**

Cepheid®

Cleaning procedure

Used for cleaning cartridge bay, plunger and instrument surfaces.

1. Dampen wipe/swab with the 10% sodium hypochlorite solution

2. Wipe the surface/element to be cleaned with the wipe/swab

3. Discard the used wipe/swab

4. Wait 5 minutes

5. Dampen a new wipe/swab with the 70% ethanol or isopropyl alcohol solution

6. Wipe the surface/element to be cleaned with the wipe/swab

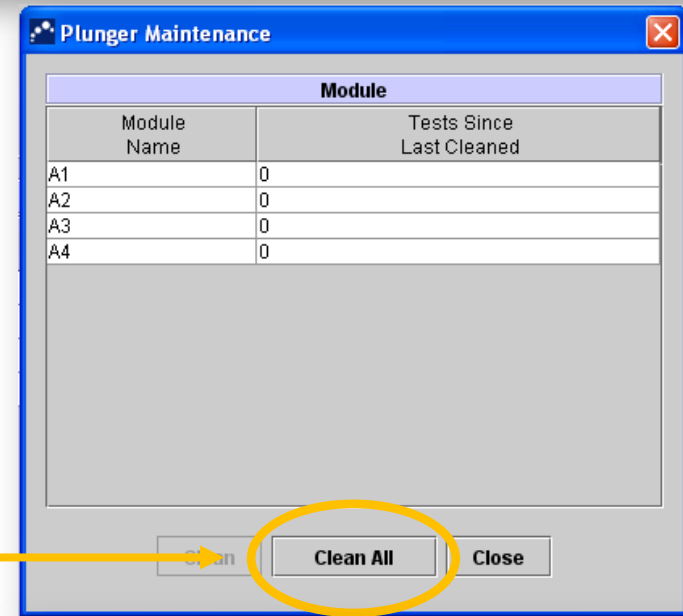7. Discard the used wipe/swab

8. Repeat step 5 through step 7

Plunger maintenance

GeneXpert® Dx System

User Data Management Reports Setup **Maintenance** About   User backdoor

Module Reporters
Plunger Maintenance
Valve Maintenance
Perform Self-Test
Open Module Door or Update EEPROM

Create Test   Check Status   Results   Define Assays   Define Graphs   Maintenance

1 From the Maintenance menu select Maintenance -> Plunger Maintenance
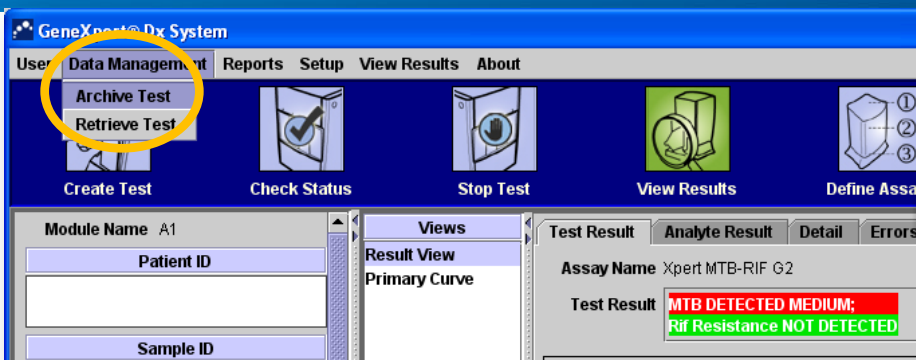
Plunger Maintenance

Module Name	Tests Since Last Cleaned
A1	0
A2	0
A3	0
A4	0

Clean   **Clean All**   Close

2 In the Plunger Maintenance window choose a module to clean, or "Clean All"

Plunger Cleaning

Please remove cartridges from the modules.
Keep hands clear of modules until rods are lowered.

OK   Cancel

3 Follow the instructions in the dialog window and click "OK"

Cepheid®
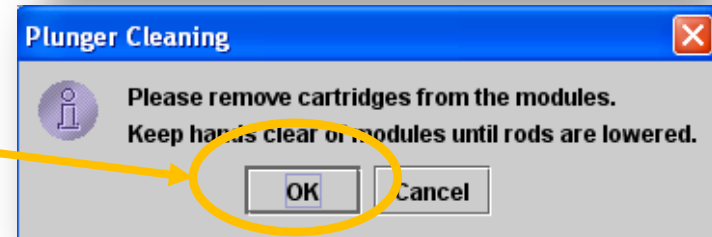
Plunger maintenance

4 The plunger rod in the chosen module will be lowered
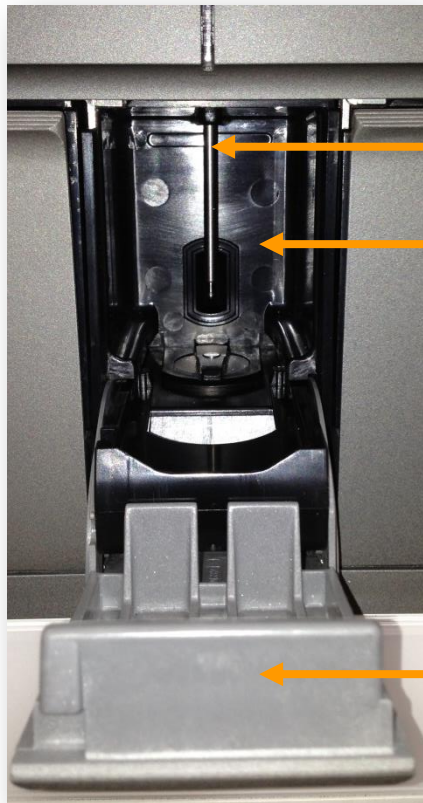
Plunger

Cartridge bay interior

Module door open

5 After cleaning the plungers, click on "Move Up All" – the plungers will return in their position
Then click "Close"

Module	
Module Name	Tests Since Last Cleaned
A1	0
A2	0
A3	0
A4	0

Clean   Move Up All   Close

Cepheid.
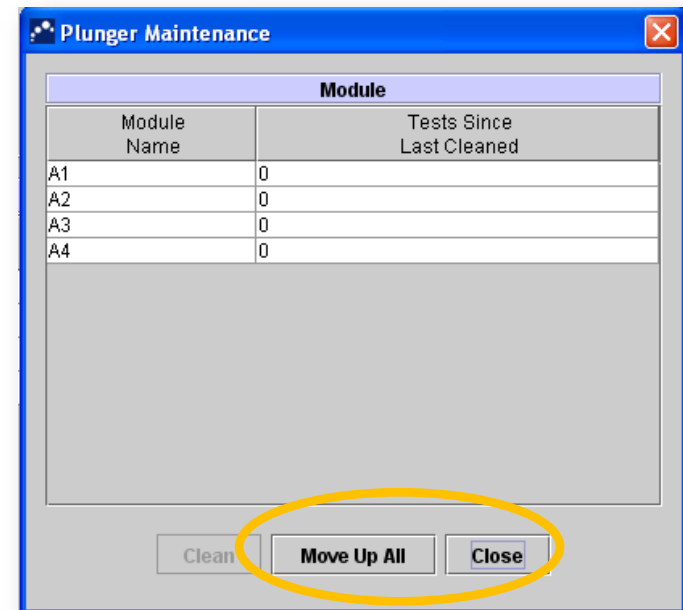
Cleaning the fan filter

Unscrew the 4 screws on the rear grey panel

© Cepheid
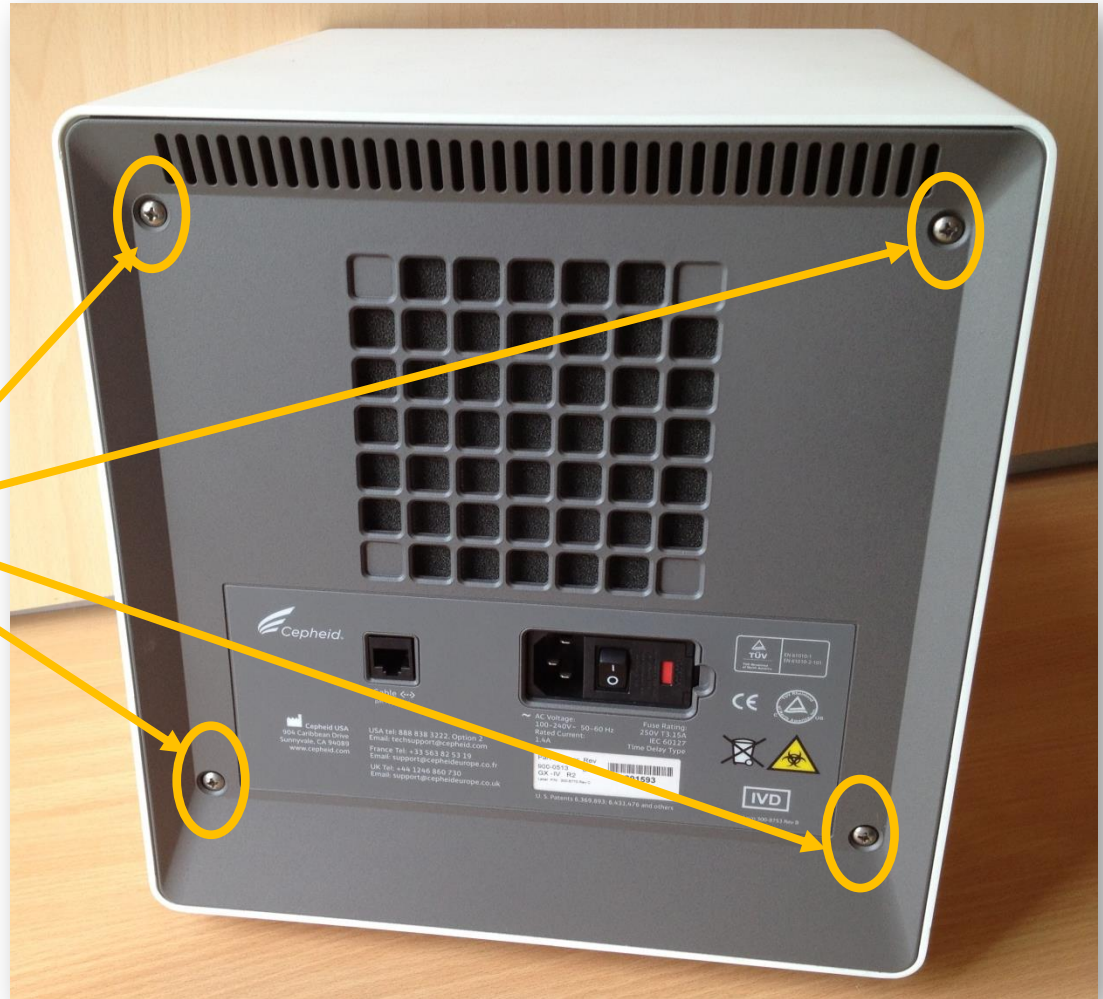
Cleaning the fan filter

Remove the grey cover at the back of the instrument

Take out the filter (sponge)

Wash the filter with water and soap Let it dry and put it back

Replace the filter if necessary- Available upon request

Cepheid®

Archiving results

Archiving results

Saving data on CD or CD-RW
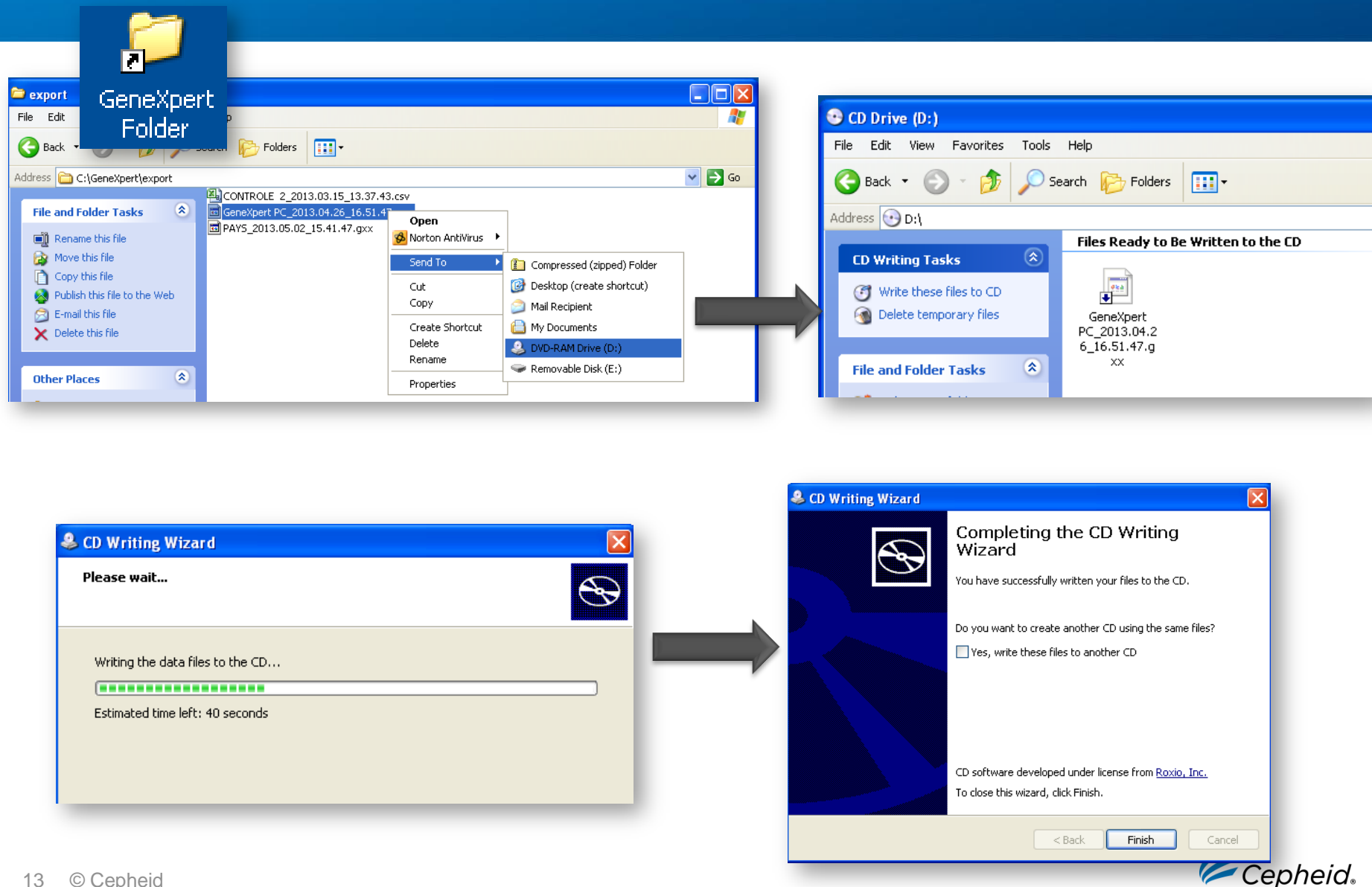
Calibration of modules

- **All modules must be calibrated every year or after 2000 tests**

- **Calibration done thanks to XpertCal® cartridges**

- **Performed by end users**

Fast Easy Steps to Calibration

STEP 1 OBTAIN → **STEP 2 CALIBRATE** → **STEP 3 ACTIVATE**
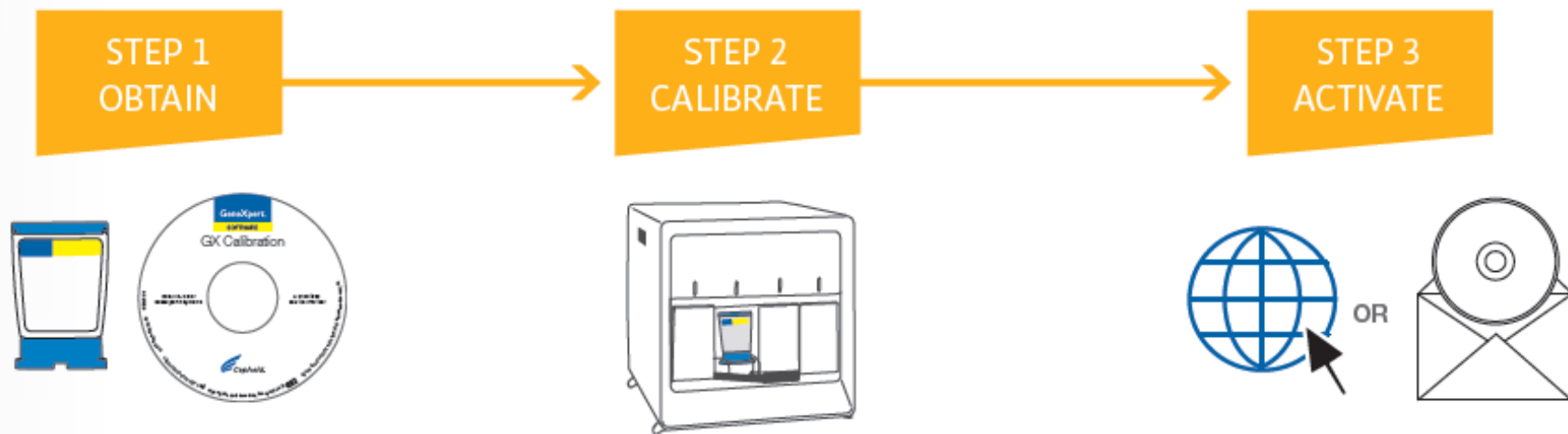
On request Maintenance tasks

NOT to be performed on a regular basis!

- **Cepheid technical support team may ask you to perform specific maintenance task in case of malfunction:**

  - Use the Module Reporters tool

  - Valve maintenance

  - Perform self-test

  - Open Module Door or Update EEPROM

Cepheid.

GeneXpert® System Maintenance Log

Institution name and lab location

GeneXpert® Serial Number: _____

Date of last Calibration: _____

Installation Date: _____

Maintenance Month: _____ Year: _____

Instructions:
1. Enter the name of your institution, GeneXpert Serial Number, last calibration date, installation date, and the current month and year above.
2. For each maintenance activity listed below check the box(es) under the day of the month that the activities were performed and enter your initials (2 characters maximum) in the bottom row.
3. Save the file after entering the data. We recommend saving one file each month for a complete record of activities.

Daily Maintenance	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Clean work area	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Keep module doors upright	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Discard used cartridges	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Weekly Maintenance																															
Reboot the GeneXpert Instrument	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Reboot the software and computer	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Monthly Maintenance																															
Archive Runs ** (Chapter 5)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Delete Runs ** (Chapter 5)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Disinfect GeneXpert Instrument surfaces* (Chapter 10)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Disinfect Cartridge Bay Interior* (Chapter 10)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Disinfect Plunger Rod* (Chapter 10)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Clean Fan Filters	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Calibration of the Instrument																															
Yearly or every 2000 runs per module, whichever is first (Chapter 7)***	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
As Required																															
Print System Log Report (Chapter 10)	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Technician Initials (two letters)																															

NOTES:

See the appropriate chapter reference in the Operator Manual for complete instructions and procedures.

* To clean or disinfect a surface, wipe it with a 1:10 dilution of household chlorine bleach solution then wipe again with 70% ethanol or isopropyl alcohol.

** Monthly archiving is recommended, however, each laboratory can choose a different period.

*** At 11 months or 1800 run starts (whichever comes first) call the Cepheid Service Department at (888) 838-3222, option 3 to schedule calibration

Cepheid.

301-0748 Rev. A.1 May 2013

For more information on Maintenance of GeneXpert®

- **GeneXpert® User Manual: Chapter 9**

- **FTP server: ftp://hbdc:Crasa7Uc@ftp.caplaser.net**
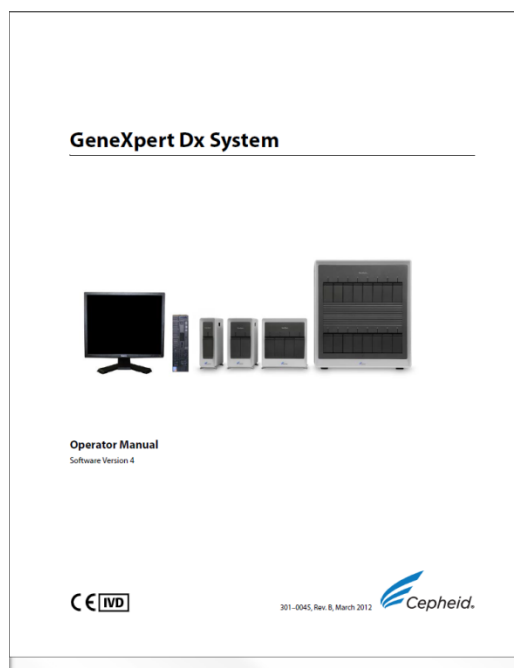
Copy and paste the link in Windows Explorer (not Internet Explorer)

Cepheid Training & Assistance

If you have any question or need a training please contact us.

- Cepheid HBDC Europe training center: +33.5.63.82.53.60 (53.78) (53.86)
Monday to Friday : 8.00 am - 6.00 pm GMT+1

- Cepheid Technical hotlines: (Instrument Issues or Other error codes)
  * Europe *Monday to Friday : 8.00 am - 6.00 pm GMT+1*

    Tel. +33.5.63.82.53.19
    Email: support@cepheideurope.com

  * US *Monday to Friday : 6.00 am - 9.00 pm Pacific Time*
    Tel. 888-838-3222, Option 2 /
    Email: techsupport@cepheid.com

When contacting Cepheid, please prepare: The Serial number of the GeneXpert®, the recorded error messages, the description of the incident and when possible the archived runs concerned.

Cepheid®