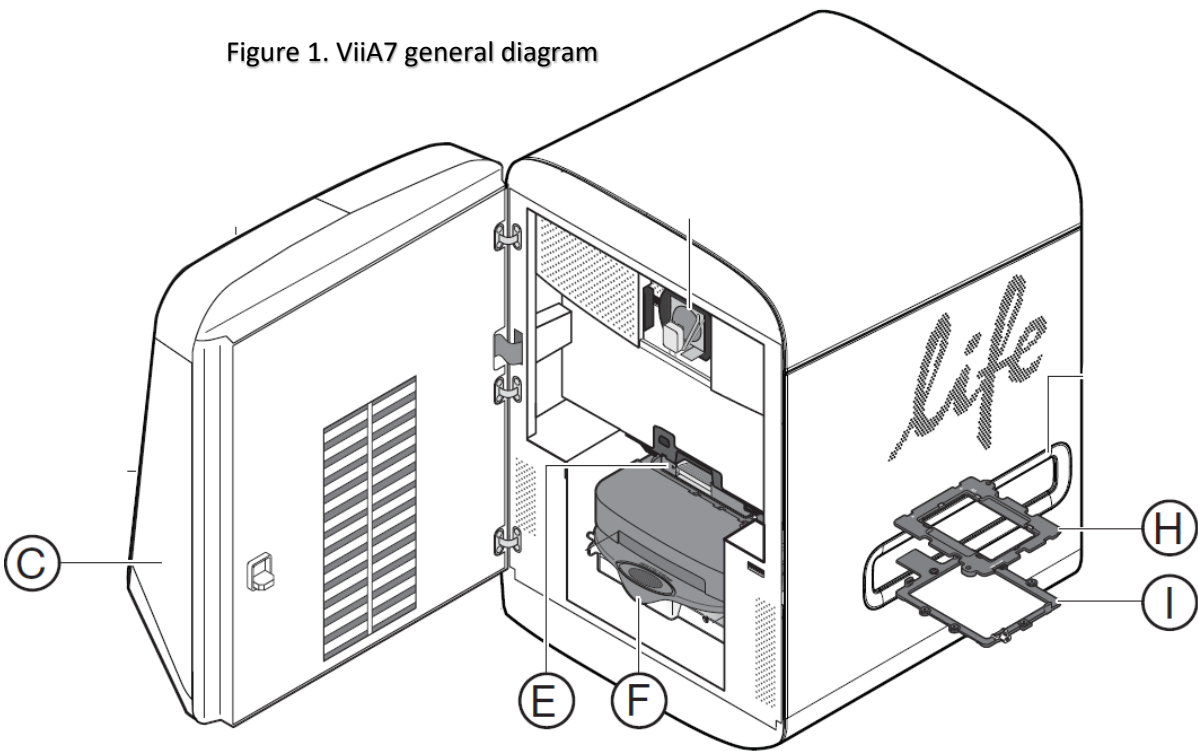


ViiA7: Changing Block and Heated Cover

1 MACHINE AND COMPUTER LOGIN

1. ViiA7 Machine located in Room 152 Biotechnology Building
 - a. Computer login (please leave computer on).
 - i. Username: ./kiosk
 - ii. Password: BRC3730xl (←lower case L)
2. 96 well block, 96 well heated cover and 96 well plate holder
3. 384 well block, 384 well heated cover and 384 well plate holder
 - a. Uninstalled block located in labeled bottom drawer under computer.

Figure 1. ViiA7 general diagram



4. Above Diagram:

- i. C: Front door of ViiA7
- ii. E: Heated Cover
- iii. F: Block
- iv. H: Plate holder adaptor
- v. I: Tray arm

2 PROCEDURE

1. Change the block if needed.
 - a. Check ViiA7 Machine touch screen to see which block is installed currently
 - i. Information is located to the very top of the ViiA7 touch screen.
 - b. If block does not need to be changed, skip to 10 (turning on the software).
2. Turn ViiA7 into standby/power save mode by clicking the green power button in the lower left hand corner of the touch screen.
 - a. Machine automatically goes into sleep mode when idle. The touch screen should be blank, top of the screen will still indicate the block currently installed.
3. Make sure the ViiA7 is in sleep mode. Switch the power off on the back of the machine. The power switch is marked by red tape located on the left hand side. The front door will click when the door lock disengages.
4. Open the front of the machine
5. Remove the sample block. *Figure 2.*
 - a. Firmly press down on the handle of the sample block, pull out completely until you can reach both handles as seen in *Figure 3.*
 - b. Place new sample block into the machine and push back until you hear a click.
 - c. Place hands on the top edge to minimize pinching your fingers.

Figure 2. Removing the sample block

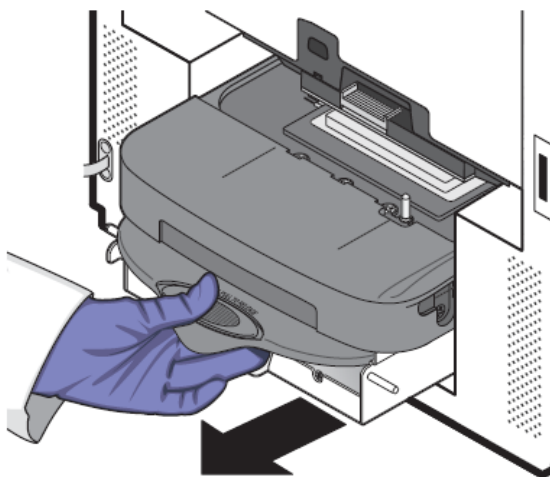
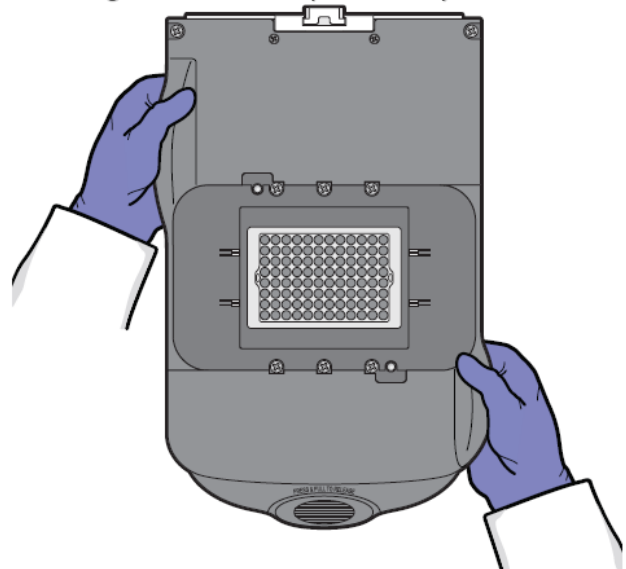


Figure 3. Hold Sample block by handles



1. Unlock the heated cover by pinching the handle together, then pulling the assembly out. As seen in *Figures 4a and 4b*.
 - a. Install heated cover that corresponds to the block installed.
 - b. Align the arrows on the front handle as shown below. If the arrows are not aligned, push the heated cover into machine until the handle locks into place.*Figure 5.*

Figure 4a. Heated cover removal

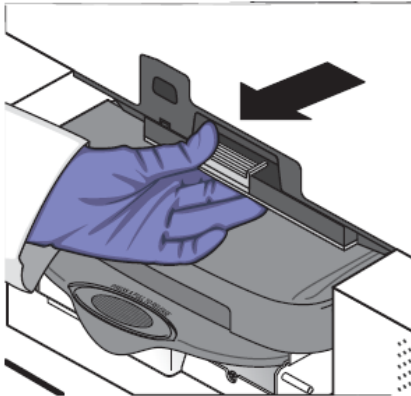


Figure 4b. Heated cover removal

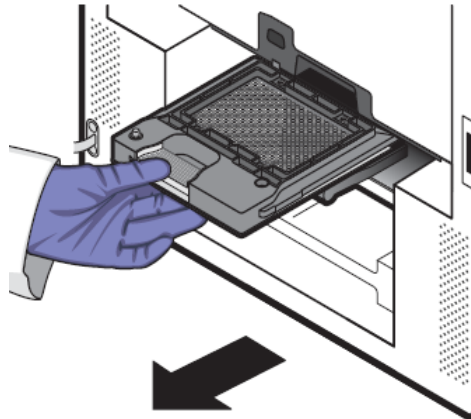
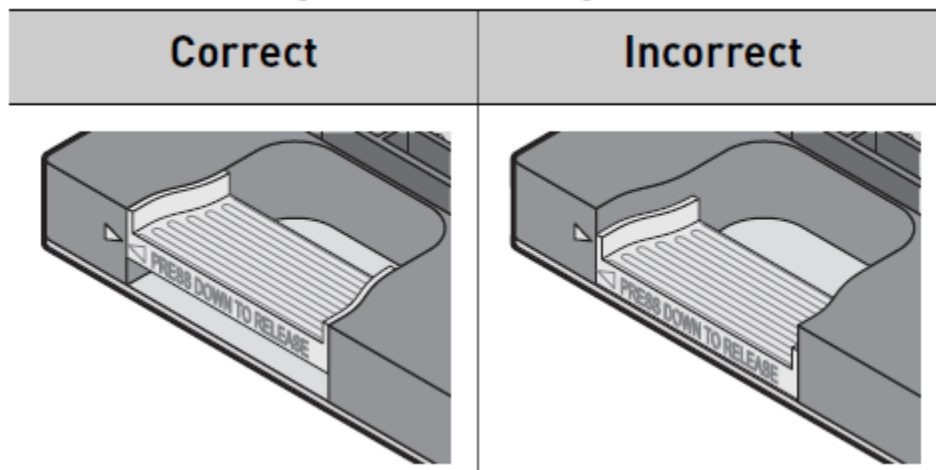


Figure 5. Heated cover alignment



2. Close Front door of ViiA7.
3. Turn the power switch back on.
 - a. Takes 2-3 minutes for ViiA7 to power on.
 - b. If either the block or the heated cover are not seated correctly, the machine will error. Turn the machine back off, open door and ensure the block and cover are installed correctly.

4. The ViiA7 will auto detect on startup if the block was changed, the tray arm/plate holder will open out and prompt you to change plate holder. *Figure 1: H and I*
 - a. When the tray arm opens, pull the latch, and then lift and remove the plate adapter. *Figure 6.*
 - b. Attach the new adaptor that corresponds to the block installed to the tray arm, then pull the latch to allow the adaptor to lower into place. *Figure 7.*
 - c. Hit OK on the ViiA7 touch screen when done, this will close the tray arm and the ViiA7 will finish start up.

Figure 6. Removing plate adaptor

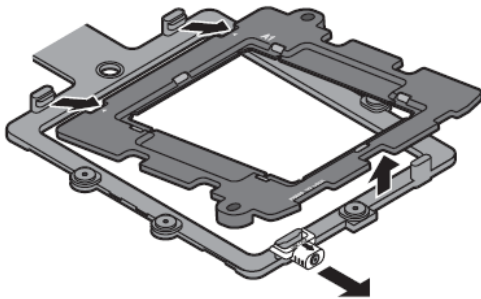
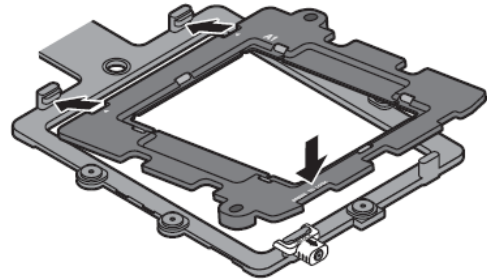
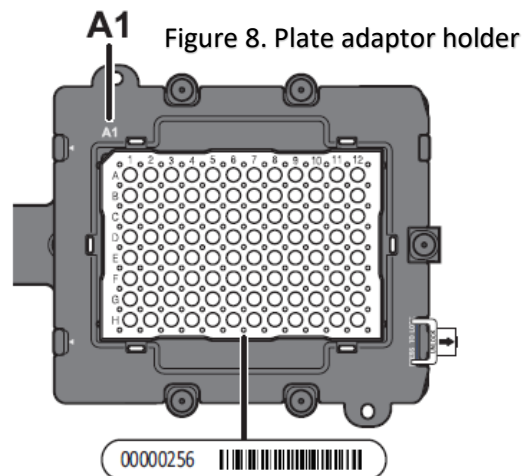


Figure 7. Attaching plate adaptor



5. Open Quant Studio Software.
 - a. If you open the software too soon, the machine and the software will not communicate. If this happens, close the software and re-open.
6. To load your plate, hit the eject button on lower right hand side the ViiA7 touch screen, hit the eject button again to close the tray arm.
 - a. Making sure you put the plate in the correct orientation. *Figure 8.*



3 SOFTWARE BASICS

1. Below are links provided by ThermoFisher in regards to software for the ViiA7.

a. ****Very useful Link****

i. Here is a link to the **ViiA™ 7 software video series**:

<http://learn.thermofisher.com/courses/view/id/326>

If you need instrument support, here are some direct links to **QuantStudio 7 Real-time PCR Support (Same as the ViiA7)**:

- [QuantStudio 6&7Flex System Support page](#). This page allows an easy access to instrument guides and a variety of different tools including QuantStudio 6Flex system and software overview videos. There is a ton of really useful information, including “Getting Started” and “Troubleshooting” sections which are most useful to find solutions to most common questions and problems. You can browse through the “Guides and Tools” section to access comprehensive product-related support resources.
- QuantStudio 6&7 Real-Time PCR systems **Maintenance and Administration**
<http://tools.thermofisher.com/content/sfs/manuals/4489821.pdf>
- QuantStudio 6&7 Real-Time PCR system **Software Getting Started Guide**
<http://tools.thermofisher.com/content/sfs/manuals/4489822.pdf>.

Remember, if you need or would like to **download the software from our website** or if you have any specific technical questions about your instrument (calibrations, operation, software support, etc.) you can go to our **Real-Time PCR and dPCR Instrument Support Center** <http://www.thermofisher.com/us/en/home/technical-resources/technical-reference-library/real-time-digital-PCR-instruments-support-center.html>. When you get to the page, select your instrument and then scroll down to the section that says Tools, Software and Calculators. You will see the following link to download the **QuantStudio V1.3 software** [(FREE) Remember, you do not need a license to install it. Here is a direct link: <http://www.thermofisher.com/us/en/home/technical-resources/software-downloads/quantstudio-flex-real-time-pcr-system.html>

In addition, here is a link to the **ViiA™ 7 software video series**:

<http://learn.thermofisher.com/courses/view/id/326>

If you need application support regarding some of the applications that I mentioned, please visit our new **Real-Time PCR and Digital PCR Applications Support** page

<http://www.thermofisher.com/us/en/home/technical-resources/technical-reference-library/real-time-digital-PCR-applications-support-center.html?CID=fl-we115542> which also includes technical content on related Software Support. This Support Center covers 12 main Applications:

- Real-Time PCR Basics Support
- Gene Expression Support
- SNP Genotyping Support
- miRNA and pri-miRNA Support
- Copy Number Variation (CNV) Support
- Mutation Detection Support
- High Resolution Melt (HRM) Support
- Digital PCR Support
- Protein Thermal Shift Support
- Pharmacogenomics Support
- TaqMan Protein Assay Support
- TaqMan Primers and Probes Support

Additional Useful links:

- TaqMan Probes and Primers Support - <http://www.thermofisher.com/us/en/home/technical-resources/technical-reference-library/real-time-digital-PCR-applications-support-center/taqman-primers-and-probes-support.html>.
- Multiplex qPCR solution - <http://www.thermofisher.com/us/en/home/life-science/pcr/real-time-pcr/taqman-multiplex-qpcr-solution.html>.
- A qPCR troubleshooting interactive guide can be found here <http://www.thermofisher.com/us/en/home/life-science/pcr/real-time-pcr/qpcr-education/real-time-pcr-troubleshooting-tool/gene-expression-quantitation-troubleshooting/no-amplification/gene-expression.html>.
- qPCR education @ <http://www.thermofisher.com/us/en/home/life-science/pcr/real-time-pcr/qpcr-education.html> - on this page you will find the learning material, including videos and webinars, to help you understand the technology and get started quickly.
- AppliedBiosystems User Community @ <http://abcommunity.lifetechnologies.com/welcome> - There is a wealth of educational videos
- Ask TaqMan Videos @ <http://www.thermofisher.com/us/en/home/life-science/pcr/real-time-pcr/qpcr-education/ask-taqman.html>. These are series of quick (3-4 min) videos that cover many of the most commonly asked questions regarding real-time PCR.
- TaqMan-Sybr Rap Battle: <https://www.youtube.com/watch?v=nKrJnc1xWb0>
- **Gene Expression Troubleshooting Guide** that can be very helpful. Check it out: <http://www.thermofisher.com/us/en/home/life-science/pcr/real-time-pcr/qpcr-education/real-time-pcr-troubleshooting-tool/gene-expression-quantitation-troubleshooting/no-amplification/gene-expression.html>

Cloud Software Access (Thermo Fisher Cloud) for Mac users:

You can watch a **quick introductory video to the Thermo Fisher Cloud** by going to this page and clicking on the “Watch video...” link at the bottom of the page:

<http://www.thermofisher.com/us/en/home/cloud/all-analysis-modules/ab-secondary-data-analysis-modules.html>

***Please note that the software has been tested and validated using Chrome as the browser so you are encouraged to use Chrome when accessing the cloud software.**

Here are step-by-step instructions for setting up your **Thermo Fisher Cloud accounts**. Please see these instructions listed below:

Creating your Thermo Fisher Cloud Account and Connecting to your Instrument:

1. Access the Thermo Fisher Cloud at <https://www.thermofisher.com/us/en/home/cloud.html>
2. In the new view select **Access it now** on the left.
3. Select **Create an Account** at the bottom on the right. E-mail confirmation of your registration will be sent to you with the link to confirm your e-mail address requesting you to log into the software. Please register your account!
 - a. **Enjoy a free Introduction to the Thermo Fisher Connect platform by visiting** <https://learn.thermofisher.com/realtimepcr>
 - i. Web-Based Training > Self-Paced Online > Software and Applications Training