Thermal Cycler Remote Access with Thermo Fisher Connect

Pub. No. MAN0017467 Rev. A

Requirements

- Thermo Fisher Connect account
- SimpliAmp Thermal Cycler or ProFlex PCR System with firmware version 1.3 or higher.
- High-Power USB Wi-Fi Module (Cat. No. A26774), or CAT5 Ethernet cable.

Create a Thermo Fisher Connect account

1. Go to thermofisher.com/connect from your web browser.
2. Click **Sign up now** and follow the prompts to create an account.

Ensure the PCR instrument has the required firmware version

1. Press ⚙ (**Settings**) > **About Instrument**.
2. View current firmware version.

   a. If the firmware is version 1.3 or higher, see **Connect the PCR instrument to the internet**.

   Note: Instruments linked to Thermo Fisher Connect with firmware version 1.3 and higher automatically check for new firmware versions, and provide the option of performing upgrades directly from InstrumentConnect.

   b. If the firmware is older than version 1.3, see **Upgrade the PCR instrument firmware**.

Upgrade the PCR instrument firmware

Note: If the PCR instrument is running firmware versions 1.2.0 or 1.2.1 and is already linked to Thermo Fisher Connect, unlink the instrument before upgrading the firmware (see **Link the PCR instrument to Thermo Fisher Connect**, page 2).

1. Go to thermofisher.com/simpliampupdate or thermofisher.com/proflexupdate from your web browser.
2. Download the latest version of the firmware to a USB memory device.

   Note: The file must be downloaded to the root directory of the USB memory device and not into a folder.

3. Insert the USB memory device into the USB port of your PCR instrument.

   Note: For instruments with the USB shortcuts feature enabled, you will be directed to the **USB shortcuts** screen. Press **Update Software** to proceed to the **Software Update** screen.

4. Press ⚙ (**Settings**) > **Maintenance & Services** > **Software Update**.
5. From the **Upgrade Firmware** screen, select the appropriate file from the USB memory device, then press **Update** > **Yes** to start the upgrade.

   IMPORTANT! Do not power off the instrument during the upgrade. When the upgrade process is complete, the instrument will restart automatically.

Connect the PCR instrument to the Internet

Connect your thermal cycler to the Internet. See the instrument user guide for detailed instructions.

- Connect via wireless connection with the High-Power USB Wi-Fi Module (Cat. No. A26774)
- Connect through the instrument Ethernet port using a cable.

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Link the PCR instrument to Thermo Fisher Connect (administrator only)

The procedure to link the Administrator profile to Thermo Fisher Connect only needs to be performed the first time the PCR instrument is added to Thermo Fisher Connect.

1. Press ♟ (**Sign In**) > **Sign In**, then select the Administrator profile.

2. Log in. (The default password for the Administrator profile is "password"). You will then be redirected back to the home screen.

3. Press ⚙ (**Settings**) > **Instrument Settings** > **Remote Service**.

4. Set Remote Service to "On", then press **OK**.

5. Press ♟ (**My Profile**) on the home screen.

6. Select **Cloud**, then enter the Thermo Fisher Connect login and password associated with the Administrator profile.

7. Press **Link Account**. Upon successful authentication, the Administrator profile is linked to Thermo Fisher Connect.

   Note: If an instrument is already linked to Thermo Fisher Connect, you will have the option to unlink the instrument if desired.

Create a user profile on the PCR instrument

Note: The user profile is specific to the PCR instrument, and should not be confused with your Thermo Fisher Connect account.

1. Press ♟ (**Sign In**) > **Get started**.

2. Fill in the required text fields and follow the prompts to create your user profile.

Add a PCR instrument to your Thermo Fisher Connect account

Note: Multiple instruments can be added to your Thermo Fisher Connect account, but only one user profile from each instrument can be linked to your account.

1. Press ♟ (**Sign In**) > **Sign In**, then select your user profile.

2. Log in to your user profile. You will then be redirected back to the home screen.

3. Press ⚙ (**Settings**) > **Instrument Settings** > **Remote Service**.

4. Set Remote Service to "On", then press **OK**.
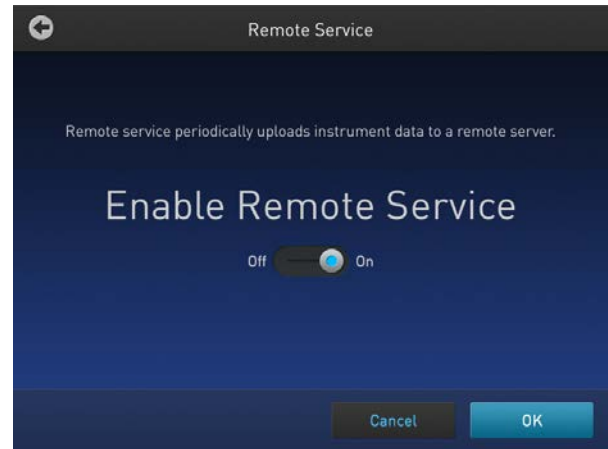
5. Press ♟ (**My Profile**) on the home screen.

6. Select **Cloud**, then enter your Thermo Fisher Connect account login and password.

7. Press **Link Account**. Upon successful authentication, the user profile is linked to Thermo Fisher Connect.

Access the PCR instrument from InstrumentConnect on a desktop PC

Thermo Fisher Connect allows you to remotely access and control a thermal cycler from a desktop computer.

1. Go to thermofisher.com/connect and log in to your Thermo Fisher Connect account.

2. Click ▤ (**InstrumentConnect**) in the left navigation bar to access the Instrument Dashboard.

3. Select the tile for the instrument that you want to access.

   a. Click to view Instrument options.
   b. Double-click to view Instrument details.

Instrument dashboard controls
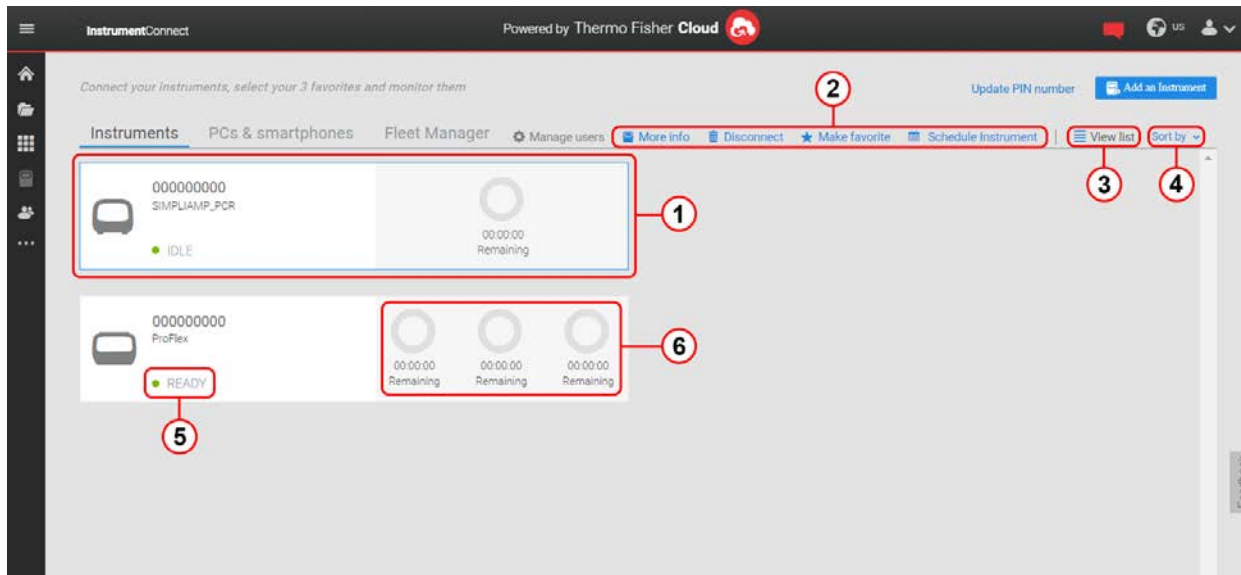
① Instrument tile   ④ Instrument list sort options

② Instrument options   ⑤ Instrument status

③ List/grid view toggle   ⑥ Run status

From the Instrument options on the dashboard, you can:

Option	Action
☐ More info	View Instrument details page.
🗑 Disconnect	Remove an instrument from InstrumentConnect.
★ Make favorite	Pin/unpin an instrument to the top of an instrument list.
📅 Schedule Instrument	Reserve an instrument for use.

Instrument detail screen (Run Status tab) controls
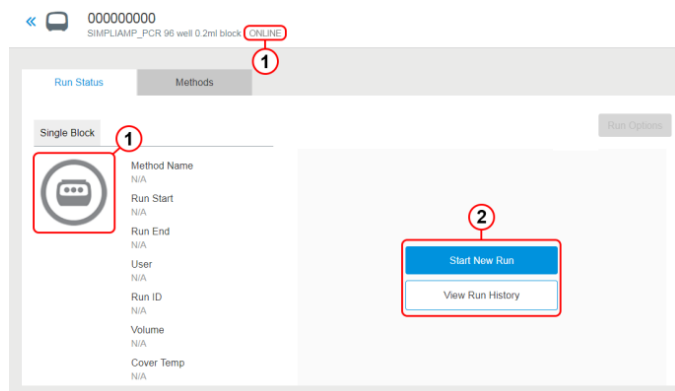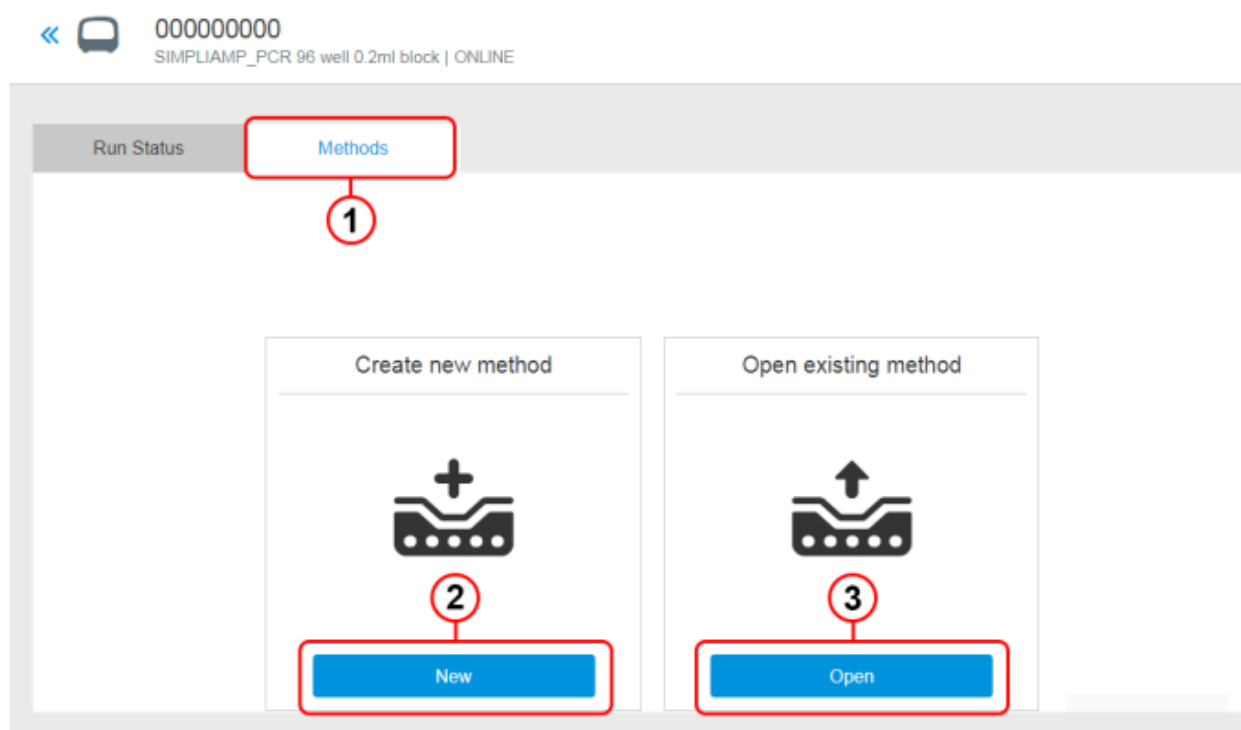

① Instrument status   ③ Run status
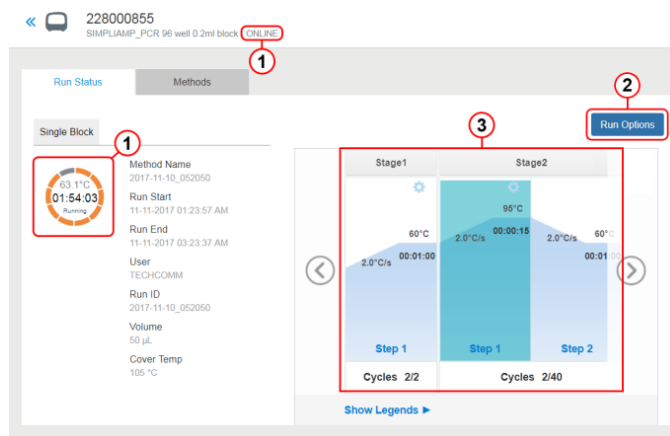
② Instrument options

Depending upon the instrument status, there are different Instrument options that can be performed from the Instrument details screen:

Instrument status	Options
	Start new run, View run history
95°C 02:00:00 Running	Stop run, View run history
Run Complete	View run history

Methods tab controls

① Methods tab

② Create a new Method

③ Open and run or Open and edit a Method

Thermal Cycler Remote Connectivity with InstrumentConnect

Create a new Method

1. Click **New** from the **Methods** tab.

2. Follow these steps to create a new Method:

   a. Enter the **Method Name**.
   b. Select the **Instrument Type**.
   c. Select the **Block Type**.
   d. Click **Next**.

3. Enter the stage and step parameters for the Method. Click **Next**.

4. Click **Save**.

   Note: The new Method is saved in your personal file folder in DataConnect, and can be viewed in the **Cloud** folder on your PCR instrument.

5. (*Optional*) Click **Start run** to run the Method from your PC. To run the Method from the PCR instrument see **Start a run from the PCR instrument**, page 5.

   Note: Before running a Method, ensure your PCR plate is prepared and loaded on the thermal cycler. You will not be able to start a run if the instrument is already running a Method, or if the instrument has not been reset following a previous run.

Run an existing method

1. Click **Start New Run**, or select the **Methods** tab.

2. Click **Open**, then navigate to an existing Method.

3. Select a Method, then click **OK**.

4. (*Optional*) Edit the Method.

5. Click **Next,** then save the Method with a new file name.

6. Click **Start run** to run the Method from your PC. To run the Method from the PCR instrument see **Start a run from the PCR instrument**, page 5.

   Note: Before running a Method, ensure your PCR plate is prepared and loaded on the thermal cycler. You will not be able to start a run if the instrument is already running a Method, or if the instrument has not been reset following a previous run.

Stop a run

Note: Only the user (or Administrator) who started the run can stop a run initiated from InstrumentConnect.
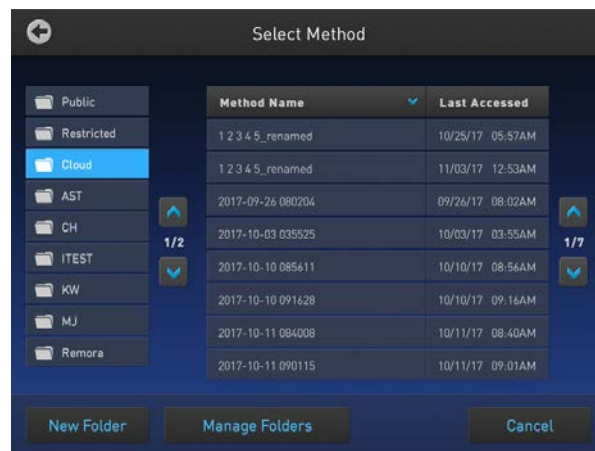
1. Click **Run options** from the **Instrument details** screen.

2. Select **Stop run**.

3. Click **Yes** to confirm.

View run history

1. Click **Run options** from the **Instrument details** screen.

2. Select **Run history**.

3. Select the Run history file you want to view.

4. Click **Download**.

Start a run from the PCR instrument

1. Click **Open method**.

2. Select the Method you want to run from the **Cloud** folder.


3. Click **Next** > **Start run**.

Share Methods

1. Create a duplicate copy of the method.

2. Click 📁 (**DataConnect**) in the left navigation bar.

3. Select the Method you want to share.

4. Click **Share with people**.

5. Enter the e-mail address of the people using Thermo Fisher Connect you want to receive the Method.

Instrument Scheduler controls

Instrument Scheduler is a notification tool which allows you to alert other users that you would like to reserve the instrument for use at a specific date and time.

Scheduler is visible to all user profiles connected to Thermo Fisher Connect, but does not otherwise constrain the use of the instrument in any way.
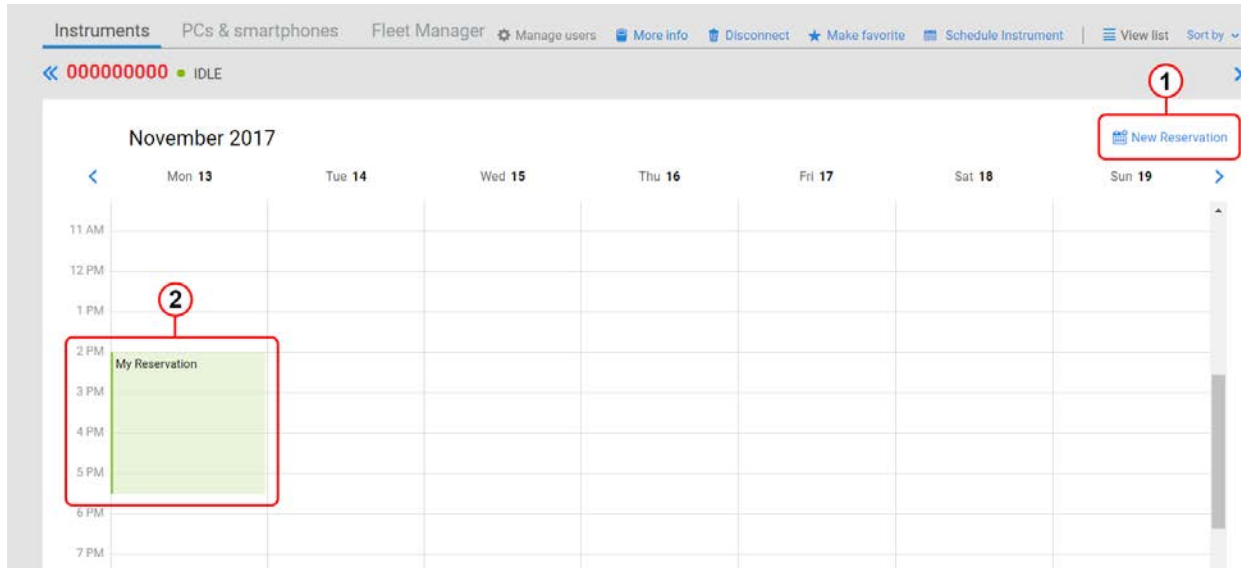
① **Reserve instrument**

② **Time block indicating reserved instrument**

## Reserve a PCR instrument with Instrument Scheduler

1. Click **New Reservation**.

2. Enter the date and time for the period of time that you wish to reserve the instrument.
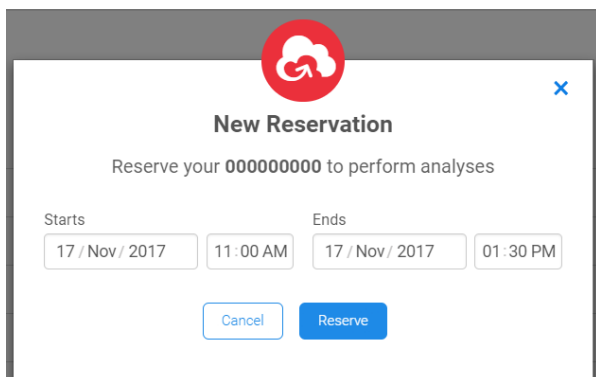
3. Click **Reserve**.

Set up mobile device to connect to the PCR instrument

1. Download the "Instrument Connect Mobile Application" on your mobile device.

2. For an iPad™ or iPhone™ mobile device, download the application from the App Store™ by searching for "Instrument Connect".

3. For Android™ devices, download the application from Google™ Play by searching for "Instrument Connect".

4. Log in to the Instrument Connect mobile application using your Thermo Fisher Connect login and password.

5. Select the tile for the instrument that you want to access.

6. From the Instrument details screen you can:

   a. View instrument status.

   b. Check run status.

   c. Schedule an instrument.
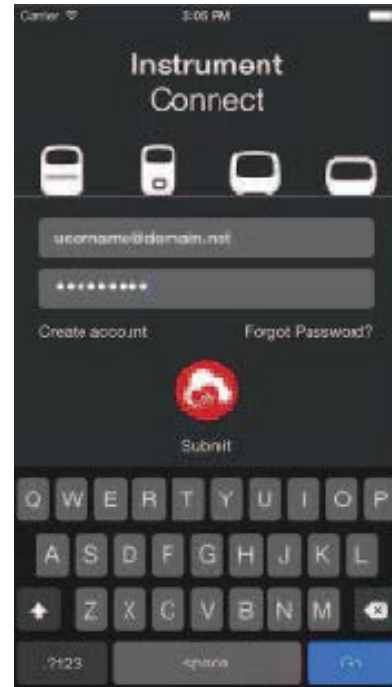
Check run status

1. Open the **Instrument Connect** app. If login is required, enter your Thermo Fisher Connect login and password.

2. The dashboard is displayed upon login, showing the status of all linked instruments.

3. Select a running instrument to view the time remaining and the protocol stage.

Dashboard	Status dial	Protocol stage

Reserve a PCR instrument with Instrument Scheduler

1. Open the **Instrument Connect** app. If login is required, enter your Thermo Fisher Connect login and password.
2. The dashboard is displayed upon login, showing the status of all linked instruments.
3. Select the instrument that you want to reserve.
4. Enter the date and time for the period of time that you wish to reserve the instrument.

Change start	Change end	Confirmation
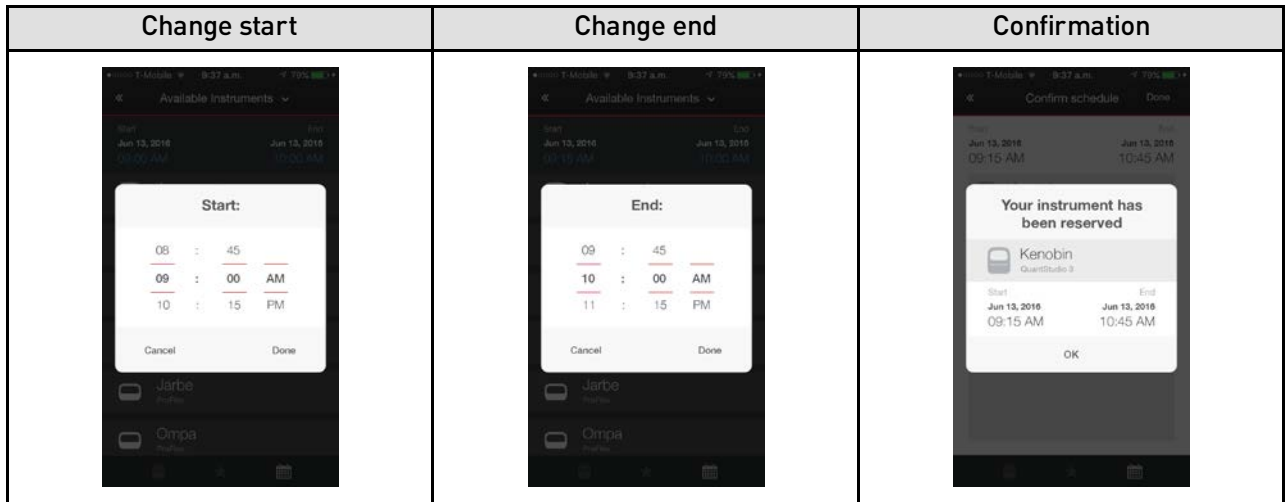
Limited product warranty

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