

QuantStudio™ 6 Pro Real-Time PCR System and QuantStudio™ 7 Pro Real-Time PCR System Hands-Free Features

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Note: For safety and biohazard guidelines, see the “Safety” appendix in the *QuantStudio™ 6 Pro Real-Time PCR System and QuantStudio™ 7 Pro Real-Time PCR System User Guide* (Pub. No. MAN0018045). Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

This Quick Reference is intended as a benchtop reference for the set-up and use of hands-free features on the QuantStudio™ 6 Pro and 7 Pro Real-Time PCR Systems. For detailed instructions, supplemental procedures, and troubleshooting, see the *QuantStudio™ 6 Pro Real-Time PCR System and QuantStudio™ 7 Pro Real-Time PCR System User Guide* (Pub. No. MAN0018045).

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Description of hands-free features

The Applied Biosystems™ QuantStudio™ 6 Pro and 7 Pro Real-Time PCR Systems have the following hands-free features:

- **Facial Authentication**—The instrument allows hands-free facial authentication to sign into an instrument profile. The instrument camera detects a face and will sign in the user after the face is matched to a facial profile on the instrument.
- **Voice commands**—The instrument recognizes a set of commands for hands-free operation. Only an administrator profile that is linked to a Connect account can enable this feature. For detailed instructions on how to link a Connect profile to the instrument, see the *QuantStudio™ 6 Pro Real-Time PCR System and QuantStudio™ 7 Pro Real-Time PCR System User Guide* (Pub. No. MAN0018045).

Facial authentication


Light guidelines

Use the following guidelines to ensure that there is proper lighting for facial authentication.


- Avoid direct light above or behind the user.
- Place the instrument in a position that minimizes backlight.
- For optimal results, place the instrument between two ceiling lights.

Enable facial authentication (administrator only)

An administrator must enable the facial authentication feature before a facial profile can be added to an existing instrument profile.

1. In the home screen, tap  **(Settings)** ▶ **Hands-free operation**.
2. Set **On/Off** slider, under **Enable Facial Authentication**, to **On**.
3. Tap **Done**.
 - Sign-in with facial authentication is enabled.
 - A facial profile can be added to an existing instrument profile.

Disable facial authentication (administrator only)


1. From the home screen, tap  (**Settings**) ▶ **Hands-free operation**.
2. Set **On/Off** slider, under **Enable Facial Authentication**, to **Off**.
3. Tap **Done**.
 - Sign-in with facial authentication is disabled.
 - A facial profile cannot be added to an existing instrument profile.

Facial authentication during initial creation of an instrument profile

During initial instrument profile set up, the workflow proceeds immediately to **Set up Facial Authentication**. For detailed instructions, see the *QuantStudio™ 6 Pro Real-Time PCR System and QuantStudio™ 7 Pro Real-Time PCR System User Guide* (Pub. No. MAN0018045).

Add facial authentication to an existing instrument profile

When a profile is set up for facial authentication, the photographs should reflect how the user appears in the lab. For example, safety glasses should be worn to set up facial authentication if safety glasses will be worn when signing in.

1. Sign in.
2. In the home screen, tap  (**Profile**) ▶ **Facial profile** ▶ **Set up now**.

Note: The instrument must be configured for facial authentication (see “Enable facial authentication (administrator only)” on page 1). The **Facial profile** button will not display if the instrument is not configured for facial authentication.
3. Prepare for the photographs, then tap **Next**.
4. Center your face within the green frame, then tap **Start**.

Note: You must position yourself close enough to the instrument so that the green frame shows only your face without any of the surrounding background. This position is closer to the instrument than when you sign in with facial authentication.

The instrument will take three separate photos after you tap **Capture**. The instrument will display a countdown before each individual photo is taken.
5. Tap one of the following options.
 - **Done**
 - **Re-take**

Sign in with facial authentication

For information on indicators for facial authentication, see “Indicators for facial authentication” on page 5.

The instrument must accept facial authentication (see “Enable facial authentication (administrator only)” on page 1).

The instrument must have the sign-in screen displayed. Sign out the current user to return to the sign-in screen.

1. Stand in front of the instrument.

Center yourself in front of the instrument. The ideal position is approximately 27 inches (69 cm) from the camera.

Note: You do not need to position yourself as closely to the instrument to sign in as when you took the photos to set up facial authentication.
2. Wait while the instrument searches for a match with the photos associated with profiles.
3. *(Optional)* Reposition yourself if the instrument indicates that the face is out of position.


Ensure that you are centered in front of the instrument. Move away from the instrument and towards the instrument to find the correct position.

The user is signed into the instrument and the home screen is displayed.

Voice commands


Only an administrator linked to a Connect profile can enable voice commands on the instrument.

Enable voice command (administrator only)

1. In the home screen, tap  **(Settings)** ▶ **Hands-free operation**.
2. Set **On/Off** slider, under **Enable Voice Command**, to **On**.
3. Tap **Done**.

The voice command feature is now enabled.

Disable voice command (administrator only)

1. In the home screen, tap  **(Settings)** ▶ **Hands-free operation**.
2. Set **On/Off** slider, under **Enable Voice Command**, to **Off**.
3. Tap **Done**.

The voice command feature is now disabled.


Enable or disable the microphone


The microphone can be disabled if the voice command function is available. A blue microphone icon indicates that the voice command function is available.

The microphone cannot be manually disabled if the voice command function is already not available. A gray microphone icon indicates that the voice command function is unavailable.

For a description of the indicators, see “Indicators for voice commands” on page 5.

Tap  **(Microphone)**.


The microphone icon will change to red with a bar to indicate that it is disabled ().

If the proximity sensor does not detect a person, the microphone icon will change to gray with a bar (). It will change back to red with a bar when the proximity sensor detects a person.

Adjust the speaker volume

The selected speaker volume is saved for each user.

When a new Connect profile is linked to the instrument, the default speaker volume is set to the maximum.

1. In the home screen tap,  **(Settings)** ▶ **Instrument settings** ▶ **Speaker volume**.
The **Volume Control** screen is displayed.
2. Slide the control to the adjust the volume.
The speakers are muted when the slider is at the far left side of the bar.
3. Tap **Done**.

Use voice commands

Voice commands are only available when a user is signed in with a Connect account.

Voice commands use Amazon™ Alexa™ for Business.

Voice commands are not available when the instrument is used as a guest. Voice commands are not available with a local instrument profile.

The instrument must display a screen where a voice command is supported.

For information on indicators for voice commands, see “Indicators for voice commands” on page 5.

Say “Alexa™, open pro instrument”, wait for the instrument audio prompt and, then issue the voice command.



The instrument audio prompt depends on the voice command that was issued.

Voice command	Instrument audio output	Instrument action
Home	—	The home screen is displayed.
Open door	—	Instrument drawer opens.
Shut door	—	Instrument drawer closes.
Begin Run	"Are you sure you want to start the run? Yes or no."	If yes, the instrument starts the run. If no, the Plate properties screen is displayed.
End run	"Are you sure you want to stop the run? Yes or no."	If yes, the instrument stops the run and displays the Plate properties screen. If no, the run continues.
Lock screen	—	The instrument locks the screen. The status dial displays Locked .
Change Block ^[1]	—	If the instrument has a block installed, the Change Block screen is displayed. If there is no block in the instrument, the Install Block screen is displayed.
Instrument scheduler ^[1]	—	The instrument schedule is displayed.
Help	—	The help topic associated with the current page on the screen is displayed.
Smart support ^[1]	—	The Smart Help screen is displayed.
Calibrations	—	The Calibration screen is displayed.






^[1] Unsaved changes are discarded after the instrument action is completed.

Indicators for the hands-free features

Indicators for facial authentication

Display	Status of facial authentication
The Sign In screen displays  .	Facial authentication for the instrument is enabled.
The Sign In screen does not display  .	<ul style="list-style-type: none"> Facial authentication for the instrument is disabled. All users must sign in with a PIN. <p>Note: To enable facial authentication, see “Enable facial authentication (administrator only)” on page 1.</p>

Indicators for voice commands

Display	Status of voice commands
 (Gray)	The voice command function is not available because the proximity sensor does not detect a person.
 (Gray)	<p>The voice command function is not available if any of these conditions is true:</p> <ul style="list-style-type: none"> The voice command function for the instrument is disabled by an administrator. The user is signed in with a local profile. The microphone was disabled by the user and the proximity sensor does not detect a person. The icon will return to a red state when the proximity sensor detects a person.
 (Amber)	<p>The instrument is preparing to accept voice commands.</p> <p>Note: The amber display is an intermediate state and will only appear for several seconds.</p>
 (Blue)	<p>The voice command function is available if all of these conditions are true:</p> <ul style="list-style-type: none"> The voice command function for the instrument is enabled by an administrator. The user is signed in with a Connect instrument profile. The proximity sensor detects a person.
 (Red)	The microphone was disabled by the user (see “Enable or disable the microphone” on page 3).

To enable voice commands, see “Enable voice command (administrator only)” on page 3.

Limited product warranty

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Revision	Date	Description
E.0	4 January 2021	v1.2.0 or later Updated the descriptions for voice command indicators.
D.0	8 January 2020	v1.2.0 or later Added information about position to set up facial authentication and to sign in with facial authentication.
C.0	16 October 2019	v1.2.0 <ul style="list-style-type: none">Added details for correct position for facial authentication.Updated instructions to set up facial authentication.Updated indicators for voice commands and added a new voice command for calibration.
B.0	8 May 2019	v1.0.1 <ul style="list-style-type: none">Corrected the text on the buttons to add a facial profile to an existing instrument profile.Updated indicators for voice commands.
A.0	22 April 2019	New document (v1.0.1).

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