

# User Bulletin

## Applied Biosystems StepOne™ Real-Time PCR System

May 2008

### SUBJECT: StepOnePlus™ Real-Time PCR System Upgrade

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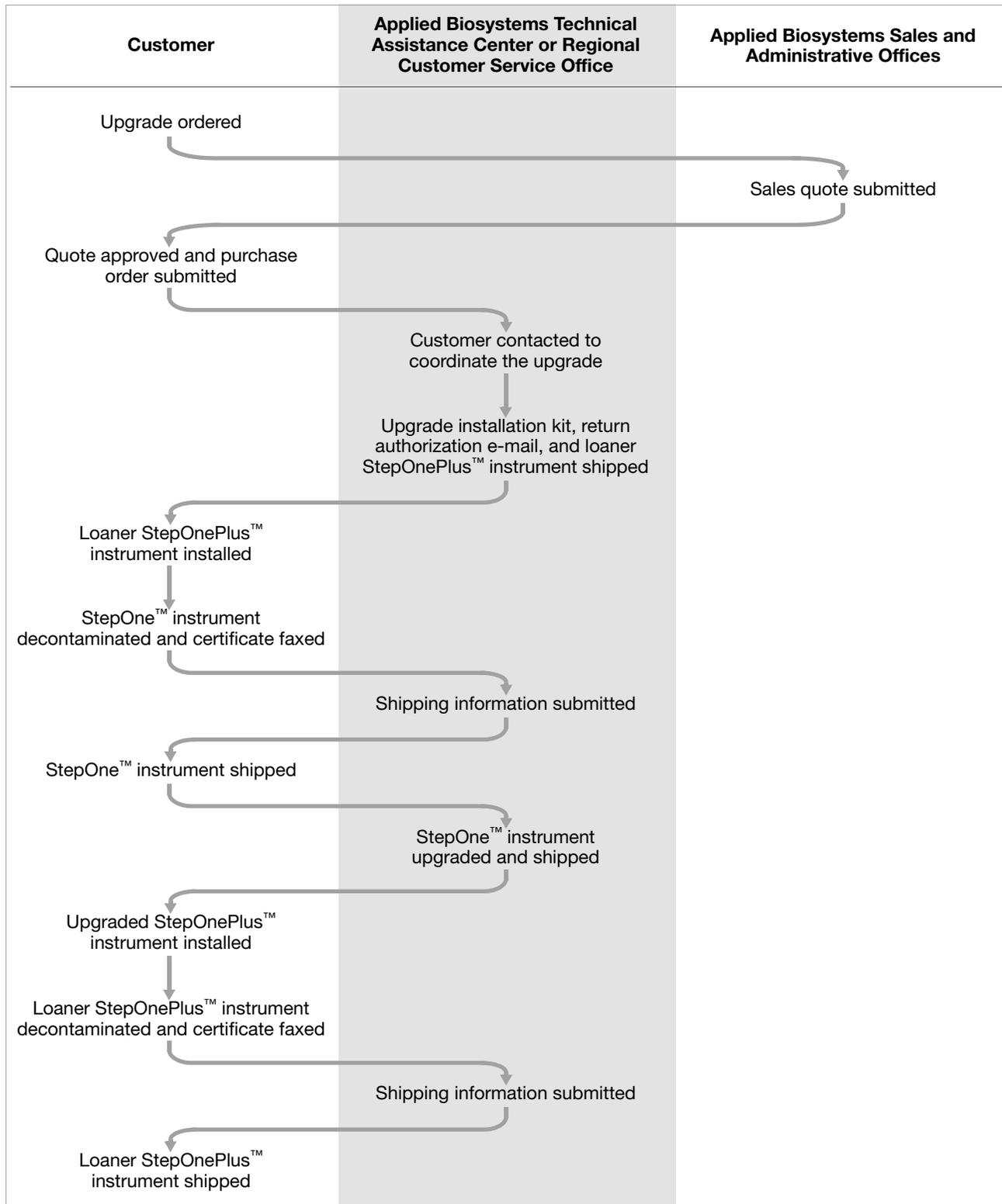
**About the Upgrade** Applied Biosystems offers an upgrade service to increase the throughput and functionality of existing StepOne™ instruments by converting them to StepOnePlus™ instruments. The service includes:

- **Veriflex™ Sample Block Upgrade** – Replaces the 48-well sample block of the StepOne™ instrument with a 96-well Veriflex™ sample block consisting of six independently-controlled Peltier blocks that can run both standard and fast PCR.
- **4-Color Optics Upgrade** – Converts the 3-color optics system of the StepOne™ instrument to the 4-color optics system of the StepOnePlus™ instrument. The additional color supports the NED™ and TAMRA™ dyes in addition to the FAM™, SYBR® Green, VIC®, JOE™, and ROX™ dyes supported by the StepOne™ instrument.
- **Planned Maintenance Service** – Includes temperature calibration of the sample block and final instrument tests using the StepOnePlus™ Spectral Dye Calibration Kit.

The upgrade also modifies the color of the instrument cover to match the appearance of a StepOnePlus™ instrument. In addition, the Applied Biosystems Regional Customer Service Office, which manages the upgrade, can provide a loaner StepOnePlus™ instrument upon request for use during the upgrade process at no additional charge.

### Overview of the Upgrade Process

The following figure illustrates the process of the StepOnePlus™ Real-Time PCR System Upgrade.



## Order the Upgrade

To order the StepOnePlus™ Real-Time PCR System Upgrade, contact your Applied Biosystems sales representative for a quote. If necessary, you can request a loaner StepOnePlus™ instrument to use while Applied Biosystems performs the upgrade. The upgrade process lasts approximately 15 to 20 business days.

**Note:** To obtain contact information for your sales representative, visit [www.appliedbiosystems.com](http://www.appliedbiosystems.com), then click **Contact Us** at the bottom of the Applied Biosystems home page.

## Receive the Upgrade Materials

After you order the upgrade, Applied Biosystems begins the upgrade process by sending an e-mail and two packages to you. On receipt of each package, confirm that you receive the required materials listed below.

- **Upgrade Installation Kit** – Contains materials for the installation of the loaner StepOnePlus™ instrument (if you requested one) and for your upgraded StepOnePlus™ instrument. The following table lists the contents of the kit.

Qty	Part Number	Description
1	4376597	Consumables Kit, StepOnePlus™ System
1	4388400	Document Set, StepOnePlus™ System
1	4377117	Power Cord, StepOnePlus™ Instrument
1	4385993	Software Kit, StepOne™ Software
2	4351979	TaqMan® RNase P Fast 96-Well Instrument Verification Plate‡
1	4378939	USB Drive, StepOne™/StepOnePlus™ System
1	4391224	User Bulletin, <i>System Software Patch Provides Support for Fast SYBR® Green Master Mix and RNA-to-C<sub>T</sub>™ 1-Step Kits</i>

‡ The upgrade installation kit contains two TaqMan® RNase P Fast 96-Well Instrument Verification Plates: one RNase P plate to install the loaner StepOnePlus™ instrument and another to install your upgraded StepOnePlus™ instrument when it arrives.

- **Return Authorization E-mail** – Contains information for the shipment of your StepOne™ instrument to Applied Biosystems, including:
  - **Certificate of Decontamination Form** – Instructions for decontaminating your StepOne™ instrument (required for shipment to Applied Biosystems)
  - **Shipping Instructions** – Instructions for arranging the shipment of your StepOne™ instrument to Applied Biosystems

**Note:** Applied Biosystems coordinates the shipping arrangements.

- Shipment materials:
  - **Loaner StepOnePlus™ Instrument** – If you requested a loaner StepOnePlus™ instrument, install it as described in [“Install the Loaner StepOnePlus™ Instrument” on page 4](#). Afterward, use the packing materials from the loaner instrument to ship your StepOne™ instrument to Applied Biosystems.
  - **Shipping Materials** – If you did not request a loaner StepOnePlus™ instrument, Applied Biosystems can provide an empty crate and packing materials required to safely ship your StepOne™ instrument (see [“Prepare and Ship the StepOne™ Instrument” on page 4](#)).

## Install the Loaner StepOnePlus™ Instrument

If you requested a loaner StepOnePlus™ instrument with your upgrade, install the system as described below. If not, go to [“Prepare and Ship the StepOne™ Instrument”](#) below.

1. When you receive the loaner StepOnePlus™ instrument, confirm that you have received the materials for the installation (see [“Receive the Upgrade Materials” on page 3](#)).
2. Set up the computer and StepOnePlus™ instrument as described in the *Applied Biosystems StepOne™/StepOnePlus™ Real-Time PCR System Installation, Networking, and Maintenance Guide*.

**IMPORTANT!** You need not recalibrate the loaner StepOnePlus™ instrument. Applied Biosystems calibrates the loaner instrument prior to shipment.

3. Verify the performance of the loaner StepOnePlus™ instrument by running a TaqMan® RNase P Fast 96-Well Instrument Verification Plate from the upgrade installation kit (see [“Receive the Upgrade Materials” on page 3](#)).

**Note:** See the *Applied Biosystems StepOne™/StepOnePlus™ Real-Time PCR System Installation, Networking, and Maintenance Guide* for information on performing the verification run.

## Prepare and Ship the StepOne™ Instrument

After you install the loaner StepOnePlus™ instrument (if you requested one), decontaminate and ship your StepOne™ instrument to Applied Biosystems for the upgrade.

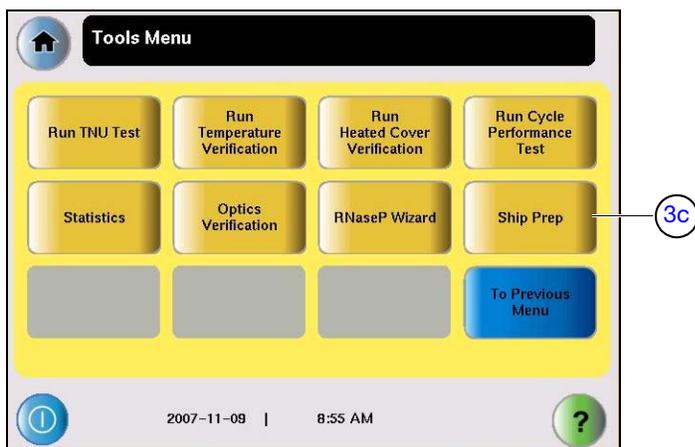
1. Decontaminate your StepOne™ instrument according to the guidelines in the certificate of decontamination that you received in the return authorization e-mail.
2. Sign the completed certificate of decontamination, then fax or e-mail it to the Applied Biosystems Technical Assistance Center or Regional Customer Service Office.

**IMPORTANT!** Do not discard the completed certificate of decontamination. You must include a copy in the shipping package with the StepOne™ instrument.

**IMPORTANT!** In some locations, Applied Biosystems must receive the completed certificate of decontamination before shipping the loaner StepOnePlus™ instrument or packing materials.

3. Raise the sample block to secure the StepOne™ instrument for transport:
  - a. Touch the StepOne™ instrument touchscreen to activate it, then touch .
 

**Note:** If the instrument does not display the Main Menu screen, touch .
  - b. In the Main Menu, touch **Tools Menu**.
  - c. In the Tools menu, touch **Ship Prep**.



- d. Load an empty reaction plate into the StepOne™ instrument.



- e. Touch **Ship Prep**.



- f. When prompted, touch **OK**, then wait for the StepOne™ instrument to raise the sample block into position.

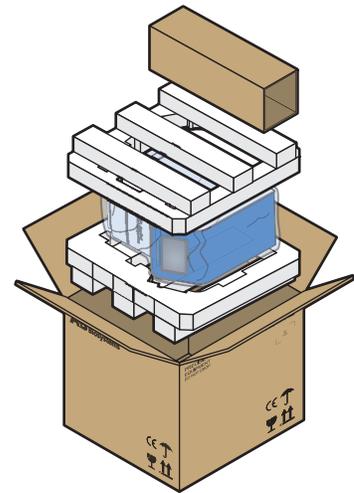


- g. When prompted, power off the StepOne™ instrument.
4. Disconnect the power cord from the back of the StepOne™ instrument.
  5. Using the packing material provided by Applied Biosystems, assemble a package that includes the:

- StepOne™ instrument *without accessories, cords, or the computer*
- Certificate of decontamination (from [step 2](#) of “[Prepare and Ship the StepOne™ Instrument](#)” on page 4)

Pack the StepOne™ instrument using either the:

- Original packing material for your StepOne™ instrument.
- or*
- Packing material for the loaner StepOnePlus™ instrument.
- or*
- Empty packing material supplied by Applied Biosystems.



**IMPORTANT!** Shipping a StepOne™ instrument to Applied Biosystems without a completed certificate of decontamination delays service of the instrument.

**IMPORTANT!** Do not include accessories or cords in the package.

6. Affix the postage provided by Applied Biosystems to the package, then contact the courier to arrange for pick up.

**IMPORTANT!** Applied Biosystems customer service arranges the shipment of your StepOne™ instrument.

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## Install the Upgraded StepOnePlus™ Instrument

When you receive your upgraded StepOnePlus™ instrument, install it using the materials from the StepOnePlus™ Upgrade Installation Kit (see [page 3](#)).

1. Set up the computer and your upgraded StepOnePlus™ instrument as explained in the *Applied Biosystems StepOne™/StepOnePlus™ Real-Time PCR System Installation, Networking, and Maintenance Guide*.

**IMPORTANT!** You need not recalibrate your upgraded StepOnePlus™ instrument. Applied Biosystems calibrates the instrument as part of the upgrade service.

2. Verify the performance of your upgraded StepOnePlus™ instrument by running a TaqMan® RNase P Fast 96-Well Instrument Verification Plate from the upgrade installation kit (see [page 3](#)). See the *Applied Biosystems StepOne™/StepOnePlus™ Real-Time PCR System Installation, Networking, and Maintenance Guide* for information on performing the verification run.

## Return the Loaner StepOnePlus™ Instrument

After you install your upgraded StepOnePlus™ instrument, decontaminate and return the loaner instrument to the Applied Biosystems Assistance Center.

1. If necessary, contact Applied Biosystems to obtain a certificate of decontamination.
2. Decontaminate the loaner StepOnePlus™ instrument as explained in [steps 1 and 2](#) of “[Prepare and Ship the StepOne™ Instrument](#)” on [page 4](#).

**IMPORTANT!** Do not discard the completed certificate of decontamination. You must include a copy in the shipping package with the loaner StepOnePlus™ instrument.

**IMPORTANT!** In some locations, Applied Biosystems must receive the completed certificate of decontamination before arranging for the shipment of the loaner StepOnePlus™ instrument.

3. Prepare the loaner StepOnePlus™ instrument for shipping as explained in [steps 3 through 5](#) on [pages 5 and 6](#). Use the packing materials of the upgraded StepOnePlus™ instrument to package the loaner StepOnePlus™ instrument.
4. Contact the Applied Biosystems Technical Assistance Center or Regional Customer Service Office to arrange for the return of the loaner StepOnePlus™ instrument to Applied Biosystems.

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Applied Biosystems is committed to providing the world's leading technology and information for life scientists.

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