



User Release Notes

SonoLab Version 10.0

6 January 2026

Introduction to SonoLab 10.0 Software

SonoLab version 10.0 operates R 230 ultrasonicator instruments. SonoLab software is necessary to run these instruments. It is pre-installed on the computer that comes with the instrument.

Installation Guide and System Requirements

1. Computer Requirements

- Operating System: Windows 10 or 11
- .NET 4.0 or higher
- Memory: 8 GB or higher
- Disk: 500 GB or higher

2. Instrument Firmware Requirement

NOTE: To check the latest firmware versions installed on your instrument, check the “About” tab on your SonoLab software.



CAUTION: Do not attempt to download SonoLab 10.0 if your instrument does not have compatible firmware versions installed.

- Controller Firmware Version: 10722-11022 or higher

3. Steps for Installation

Please refer to the appropriate appendix of the R230 Setup & Instruction Manual.

- The manual can be downloaded from here: https://www.covaris.com/product-inserts-user-manuals?filter_tag=Instruments
- The software can be downloaded from here: <https://www.covaris.com/r-series/>

Please contact Covaris Technical Support (techsupport@covaris.com) for any questions or concerns.

Introduction to SonoLab 10.0.3.2954 Software

6 January 2026

New Features:

1. A "Messages" screen has been added to display warnings and recent events
 - Clicking the "Messages" button on the main screen will open the Messages screen listing 1) non-critical warnings and 2) background events that have occurred. Background events include details of automatic processes such as periodic fill and scheduler actions. This information helps the user better understand the state of the system.
2. "Consistent Iteration Timing" option added to methods to keep non-treatment time constant when iterating over multiple columns
 - Some protocols are sensitive to the time interval between successive treatments (or scans). The primary scenario for this is a method that treats all columns in a plate. Rather than create separate methods to treat different subsets of columns, this feature can be used with the existing "Positions to Treat" option to ensure that the time interval between successive treatments of the subset of columns remains the same as that between successive treatments of the entire plate.
3. Clicking the Abort button now brings up a confirmation screen
 - This helps prevent accidentally interrupting a method run.
4. Export methods, plates, history, and logs together
 - Previously, methods and plates were exported into the same ZIP file, but history and log files went into separate ZIP files. This feature allows you to select any of these file types and export them into the same ZIP file. This is helpful when exporting files for archive purposes.
5. The degas countdown timer is now reset to its maximum value when circulation pump has been off for 5 minutes or more
 - Whenever the circulation pump is turned off, the oxygen level in the bath starts rising. This feature ensures that SonoLab will wait long enough for the oxygen level to drop back down to an acceptable level before running AFA.
6. A new application, called "Backup and Restore", has been added to support replacing a computer
 - The Backup function copies the entire SonoLab folder to a ZIP file.
 - The Restore function takes that ZIP file and restores its contents to the SonoLab folder on the new computer.
7. Improved Import/Export
 - The Summary screens have been simplified, and additional files are now included when exporting files.
8. History Summaries files
 - A new file, called HistorySummaries.csv will be created in the SonoLab History folder. A line will be appended to the file every time a treatment or scan step runs, SonoLab starts up or shuts down, or a hardware change is detected. This information is useful to Covaris personnel to diagnose issues with the instrument.
9. When an invalid plate is detected, the invalid parameter values are displayed along with valid ranges for those parameters
 - This information can be provided to Covaris personnel for diagnosis and resolution.
10. Collect diagnostics output file extension is now ZIP instead of ZIP.TXT
 - The ZIP.TXT file extension was intended to facilitate sending the file via email. However, users found the ZIP.TXT file extension confusing, and the files are often too large to email anyway.
11. Error dialogs now display additional information to facilitate diagnosis
 - The additional information, the SonoLab version number and the date and time of the error, are helpful when users send in a screenshot of the error dialog.
12. Additions to history details screen to facilitate issue diagnosis
 - Acoustic Efficiency and temperature setpoint are now displayed at the top of the screen
 - An "Instrument Details" button has been added which opens a screen that displays key parameters (such as model numbers, version numbers, and serial numbers of hardware components) that were in effect when the method ran.
13. Upon startup, details of the computer's network adapters are written to the log file
 - This provides additional information to Covaris personnel to diagnose certain types of issues.
14. Upon startup, the firewall status is now written to the log file
 - This provides additional information to Covaris personnel to diagnose certain types of issues.
15. The SonoLab Installer now displays 3rd party licenses
 - This license information is also available on the SonoLab About screen.

16. Cluster functionality has been removed in this version
 - This functionality is planned to be restored in a future release.

Based on customer feedback, here are the bugs we've fixed!

1. Trying to load a completed history of long-running method (100s of iterations) can hang SonoLab
2. Methods can incorrectly fail while Fill on Start was still running
3. Low water level specified in plate file may result in bath being drained
4. Methods can incorrectly fail when run water level in plate file is set to max limit
5. Methods can incorrectly fail when started via API
6. Open Cover doesn't work in emulation mode
7. Methods can incorrectly fail with temperature out of range error
8. When clicking History tab, several errors appear in the logs show history files missing
9. Crash could occur while opening cover with sample holder in Load position

Appendix A: SonoLab 10.0.2.2636

22 April 2025

New Features:

None

Based on customer feedback, here are the bugs we've fixed!

1. After upgrading from 10.0.1 to 10.0.2.2218 partially used plates can get marked as “no usages remaining”
 - Plates that were run with SonoLab 10.0.1 can now be run with this release.
The previous release, 10.0.2.2218, prevented running methods with such plates.
2. If a Fill or Drain operation fails, then the next Fill/Drain operation may report an error
 - The second Fill/Drain actually succeeds but incorrectly reports that it failed.

Appendix B: SonoLab 10.0.2.2218

29 November 2023

New Features:

1. Introducing predefined templates to assist with creating complex new treatment methods.
 - With this release, users can save time by selecting from available templates that simplify the process of creating commonly used method patterns. Predefined templates auto-populate with steps that are required to complete a certain type of treatment operation (i.e., when pulsing one column at a time before delay, pulsing multiple columns at a time before delay etc.). In previous releases, the user was required to input all steps manually whenever creating a new method.
2. To account for decreasing water level, the instrument can add water during a method run.
 - For the R230, if water levels drop while a method is running, SonoLab will add water until it reaches the target level. This feature is particularly important for methods that are long-running or use higher power. This feature is off by default and must be enabled for each method.
3. Convenience of automatically moving the instrument to "load" position at the end of each method run.
 - When enabled, SonoLab 10.0.2 will automatically move the instrument to the "load" position after completion of a method without having to take any extra steps or press any additional buttons.
4. Easily view and edit method creation notes.
 - Creation of method notes was already possible, but this new release allows method notes to be viewed at any point and by any user.
5. SonoLab informs users of any untreated positions.
 - Now there is a dialog box that visually and textually notifies the user of any untreated positions in a run.
6. Admin screen allows setting Load position coordinates.
 - Simplifies changing Load position. Previously you had to manually edit the SonoLab configuration file.
7. Configure the system to be READY ahead of a scheduled run at the start of the day.
 - Previously, the Scheduler Ready action would degas the water, set the temperature to that specified by the scheduled method, and check water levels. Now it also homes the instrument to ensure proper calibration prior to beginning an important day of sample running.
8. Easily delete unwanted or unused methods
 - With this new release, users can delete unwanted methods on the user interface without having to leave SonoLab.
9. Reduce time to diagnose a problem by sending diagnostic data files to Covaris support.
 - With this release, customers can save time by downloading a compressed data file, which includes all system-related information, and email to Covaris support to efficiently diagnose any issues.
10. Quality check feature that notifies users when instrument board settings have been changed unexpectedly.
 - The board setting validation feature will now notify users if it detects any instrument parameter changes and then prompt the user to continue.
11. Easily configure automation systems using the SonoLab user interface.
 - Users can now set up and/or change their automation software configuration via the SonoLab v10.0 user interface.
12. Export methods, plate definitions, history, and log files.
 - Methods, plate definitions, history, and log files can now be written to a zip file for archival or transfer to other instruments.
13. Import methods and plate definitions.
 - Methods and plate definitions can be loaded from a zip file. These zip files could come from the Covaris web site or could have been exported from another instrument.
14. For plates with RFID, each column can now be treated up to 2 times by default, instead of 6 times for an entire plate.
 - This allows using a 12-column plate up to 24 times instead of the previous limit of 6 times.
15. The Refresh button has been removed.
 - SonoLab is now automatically updated when method or plate definition files are added, removed, or changed outside of SonoLab.

16. Control multiple R230 instruments from a single computer.
 - With previous versions of SonoLab, only a single instance of SonoLab was allowed to run on a computer, hence multiple computers were needed to control multiple R230s. This feature allows you to connect multiple R230s to a single computer, and run multiple instances of SonoLab, one for each instrument. See the SonoLab Cluster document.
17. Screen to open and close the optional downholder.
 - This allows you to test the downholder without having to create an automation script.

Based on customer feedback, here are the bugs we've fixed!

1. Fill from empty bath will reach target water level
2. Fill from empty bath will now begin cooling immediately
3. Periodic fill will no longer cause the sample holder to be moved from Load position.

Appendix C: SonoLab 10.0.1.1309

24 February 2022

New Features:

1. Handheld barcode reader support
2. Handheld RFID reader support
3. Untreated positions button and dialog box
4. Consumable-based method selection
5. Bi-directional scanning
6. Default user permissions
7. Allow expired consumables to run with user consent
8. Frequency hopping parameters in plate definitions
9. Automatic board settings validation and restore
10. Warn user of UV light error conditions
11. Support 384-well plates
12. Display message boxes with icon and color banner
13. Improvements to history display and load performance
14. Support for Covaris Downholder

Based on customer feedback, here are the bugs we've fixed!

1. If scheduler Off action runs, then the next Ready action will not run
2. Fill on startup doesn't fill empty bath
3. If bath is empty, the chiller setpoint isn't applied when a different method is selected
4. If bath is empty and "Fill to Load" is clicked, the water level will end up lower than the target load water level
5. Daylight savings time issues

Appendix D: SonoLab 10.0.0.1561

11 August 2020

Initial release

Features:

1. Run/Pause/Resume/Abort methods
2. Display instrument status
3. Motion and water control
4. Display water level & temperature, method treatment time, and time to degas
5. Override temperature and degas
6. RFID-based consumable validation
7. Create and edit methods
8. Rearrangement of method steps via drag and drop
9. Create and edit scheduled operations
10. Periodic fill
11. Fill on startup
12. View method history
13. View instrument information such as instrument type, serial numbers, versions, etc.
14. User login/logout
15. Administrative control over user accounts and other settings
16. API automation support

Support and Technical Assistance

Tech Support: Ongoing assistance with the operation or application of the equipment and/or troubleshooting is provided via:

- **Telephone:**
 - US & APAC: +1 781.932.3959, during the hours of 8:30 a.m. to 5:00 p.m. (EST), Monday through Friday
 - EU: +44 (0) 845 872 0100, during the hours of 9:00 a.m. to 5:00 p.m. (GMT), Monday through Friday
- **E-mail:**
 - US Customer Service: customerservice@covaris.com
 - EU/UK Customer Service: emeacustomerservice@covaris.com
 - APAC Customer Service: APACcustomerservice@covaris.com
 - Service and Instrumentation: techsupport@covaris.com
 - Applications: applicationsupport@covaris.com

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