

Instruction Sheet

Software Update Procedure for Orion Star T900 Series Potentiometric Titrators

Use the following procedure to update instrument software for the Thermo Scientific™ Orion Star™ T900 series titrators: Orion Star T910 pH titrator, Orion Star T920 redox titrator, Orion Star T930 ion titrator, and Orion Star T940 all-in-one titrator. For complete setup and operation instructions, consult the Orion Star T900 series titrator user guide.

Orion Star T900 Series Titrators
Revision Date: November 15, 2019
IS-T900SOFTWARE-E Rev. F

Install new titrator software updates to add the latest features, enhancements and bug fixes to your Thermo Scientific Orion Star T900 series titrator. For the latest titrator software update file, please visit www.thermofisher.com/titrator.

Before Installing a New Software Update

Note: Before installing a new software update on your titrator, make sure to backup and export all methods and data log files, as methods and data log files may be deleted from your titrator when the software update is performed.

1. Backup and export any saved methods to a USB flash drive.
2. Export all data log files to a USB flash drive or printer.
3. Go to www.thermofisher.com/titrator and use the *Find your software* link to access the latest version of the titrator software.
4. Save the latest version of the titrator software to a USB flash drive.
5. If the titrator software is in a compressed/zipped format (.zip), extract/unzip the file and save the titrator software (**orionStarT900Updates_Release_V2.10.0.tgz** or **orionStarT900Updates_Release_V3.3.0.swu**) to the root directory of the USB drive, not within a subfolder.

Note: It is recommended to use a high-quality USB flash drive, such as the one included with your titrator, as a high-quality USB flash drive will make a tight-fitting, secure connection with the USB input on your titrator. To reorder the USB flash drive, use part number START-UM1.

New Software Update Procedure

Note: Your titrator must be at software version V2.10.0 in order to install this update. If your titrator is at an earlier software version, you will need to perform this procedure once to update your titrator to software version V2.10.0 and a second time to update your titrator with the latest software version to V3.0.0 or higher.

1. Verify the current software version of your titrator.
 - a. From the home screen, tap the “General Settings” icon and then tap the “Files and Info” button.
 - b. Tap the “Software Versions” button and verify the Application Version is V2.10.0.
 - c. If the Application Version is an earlier version than V2.10.0, you will need to update your titrator to version V2.10.0 before updating to version V3.0.0 or higher.
2. Go to www.thermofisher.com/titrator and use the *Find your software* link to access the latest version of the titrator software.

3. Save the latest version of the titrator software to a USB flash drive.
 - a. If applicable, save both versions V2.10.0 and V3.0.0 (or higher) to a USB flash drive.
 - b. If the titrator software is in a compressed/zipped format (.zip), extract/unzip the titrator software file.
 - c. Save the titrator software (**orionStarT900Updates_Release_V2.10.0.tgz** or **orionStarT900Updates_Release_V3.3.0.swu**) to the root directory of the USB drive, not within a subfolder.
 - d. Do not unzip/extract the actual titrator software (.swu or .tgz file format).
4. Insert the USB flash drive into the titrator.
5. Power on or restart the titrator and wait for the USB flash drive to mount with the titrator, indicated by the USB icon shown on the top of the titrator home screen.
6. When prompted, tap the “Update System” button.
 - a. For earlier software versions, you may need to manually start the update process. From the home screen, tap the “General Settings” icon and then tap the “Files and Info” button. Tap the “Software Version” button and then tap the “Check for Updates” button.
7. The update process will begin and take several minutes. Do not turn off the titrator during this time.
8. The titrator will automatically restart when the software update is complete.
 - a. Required operating system configuration changes will be applied on the first startup after the update is installed. During the configuration process, a sequence of three dots will be shown on the screen. This may take a few minutes. This is a one-time event and will not delay future restarts.
9. The titrator software is now updated.

Note: If the titrator shows an update failed message, restart the titrator and repeat the update procedure again.

Software Update Version History

Note: Titrators with a software version lower than V2.10.0 must be updated to software version V2.10.0 before any newer software updates versions can be installed on the titrator.

Version 3.3.0

- Corrections to delete methods using standard menu selection
- Additional minor bug fixes and stability enhancements

Version 3.2.0

- Improvements to titrant standardization data being preserved when copying methods
- Improvements to support refilling the burette during titration for max. titrant volumes larger than burette size
- Improvements to delete methods with swipe left action
- Corrections to issues that can occur when number of logs exceeded 100
- Correction to molecular weight entry field when reporting in % w/w units
- Addition of new standard concentration units in mM
- Improvements to language translations
- Additional minor bug fixes and stability enhancements

Version 3.1.0

- Enablement of communication for Orion Star T900 series computer software with Orion Star T910 pH, T920 Redox, T930 Ion and T940 All-in-one titrators
- Improvements to result accuracy for ISE MKA mode
- Addition of new result units for ISE MKA mode
- Improvements to log loading performance
- Correction to temperature compensation error in preset endpoint titration
- Additional minor software bug fixes and stability enhancements

Version 3.0.0

- Support for Orion Star T910 pH, T920 Redox, T930 Ion and T940 All-in-one Titrators
- Implementation of Multiple Known Addition (MKA) mode on T930 Ion and T940 All-in-one Titrators
- Improvements to software updating process

- Improvement to reliability of USB flash drive mounting
- Various bug fixes and stability enhancements

Version 2.10.0

- Support for Orion Star T910 pH, T920 Redox, T930 Ion and T940 All-in-one Titrators
- Improvements to report export performance
- Improvements to titration equivalence point detection
- Best available equivalence points reported when maximum volume reached
- Improvements to back and blank titrations
- Various bug fixes and stability enhancements

Version 2.9.0

- Support for Orion Star T910 pH and Orion Star T920 Redox Titrators
- Improvements to reports
- Improvements to method import/export
- Methods optionally preserved on factory reset
- Improvements to titration endpoint detection (avoiding early stops)
- Added Variable Blank mode
- Added Back Titration with Blank Run mode
- Additional Languages Supported:
 - French
 - Italian
 - Japanese
 - Korean
 - Russian
- Additional minor software bug fixes

Version 2.8.0

- Support for updated hardware (no feature changes)

Version 2.7.0

- Initial Orion Star T910 pH only titrator release
- Languages Supported:
 - Chinese

- English
- German
- Portuguese
- Spanish

Note: Titrators with a beta software version lower than 2.7.0 must be updated to software version 2.7.0 before any newer software updates versions can be installed on the titrator. Contact our Technical Support team for assistance.

Technical Support and Assistance

For any questions or if you require assistance, please contact your local Technical Sales Representative, Product Specialist or Technical Support Team.

Americas Technical Support Team

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