

## SmarTracker Update (v. 3.7.3)

Update includes:

- Preheating button  – a function has been added that will allow the water baths to be filled and heated before starting a test. This helps guarantee the test starts within the 30 - 60 minute window specified in the AASHTO T324 test.
- In the “.txt” data file, the time the specimen is in the water before testing is recorded as the “Pre-conditioning” time; it includes the time to heat the water within 0.5°C of the setpoint and the 30 minutes pre-conditioning time. The pre-conditioning time will now start when one side (instead of both sides) is within 0.5°C of the setpoint.
- Screen will show RED numbers if conditioning time takes longer than 60 minute (AASHTO T324) limit for heating and pre-conditioning before test *instead* of stopping the water heating. This time is now stored in the data file as the pre-conditioning time. The screen red number if the temperature is outside the +/- 1.0°C range any time during the test.
- Air Temperature Offset has been moved into the temperature setting function 
- Values changed in test parameters, such as number of passes, pre-conditioning time, and testing mode, are automatically saved without pressing .
- Auto-save – The table now reads number of *passes* instead of cycles for Freq and Limit table.
- Results of the test for every 1000<sup>th</sup> pass are displayed after the test finishes

Please contact Andrew LaCroix at 919-875-8371 or [alacroix@instrotek.com](mailto:alacroix@instrotek.com) if you have questions or concerns.

## Before Installing Firmware

1. In the main menu, press the right arrow to find  to enter system configuration. Then press  to enter the device configuration menu. Enter the password (2222).
2. Press  five (5) times to get to the screen the temperature timeout. Change this value to 3600 seconds (60 minutes).
3. Press  to get to the screen with the auto-save table. Multiply all the values by 2.  
NOTE: The updated factory default values should match the AFTER table shown below. If your table has different values, multiply each value by 2.

BEFORE		AFTER																					
Run log file:	PC software	Run log file:	PC software																				
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4. Press  to save changes.

## Procedure to Install Firmware

1. Download the file to a USB drive.  
(<https://www.dropbox.com/s/i3vsp8k10y4gzvi/3.7.3.zip?dl=0>)
2. Extract the files to the main directory (E:\), not (E:\3.7.3).
3. Insert the USB drive into the SmarTracker control box.

4. In the main menu, select the last option to the right (Control panel ). Then select the last option to the right again (Software ). Enter the password: Default is 5555.

5. Select **Backup to Pen-Drive**, press , and press . This saves the settings in the system configuration and the calibration files.
6. **\*\*Insert the USB drive into a computer. Confirm that a folder labeled “TMNET-0000XXXX” is on the USB drive before proceeding.\*\***
7. Insert the USB drive into the SmarTracker. Select **Update software** from **Pen-Drive** and press . The update will take 3-5 minutes to load. Once the update is complete, the system will reboot and should show version 3.7.3 in the bottom left corner of the screen.
8. After the update, return to the Software menu, **Restore from Pen-Drive** and press .

### Procedure after Installing Firmware

1. Enter the Wheel Tracker test function . Enter the temperature setting . Verify that the temperature offset is 0.0°C
2. Go into the Test Parameters (preconditioning time, number of passes, etc.).
  - a. Verify that the test parameter settings are correct.
  - b. Uncheck the temperature probe box for both Left and Right sides. The machine will now report the temperature of the bottom tank.
3. Try the preheating option  to make sure the water valve turns on, the tanks fill, and the water heats to the current temperature setpoint.