

Optional SS11LB User Calibration using FLOWCAL Calibration Kit

The SS11LB airflow transducer is factory-calibrated to measure airflow ranges of -10 to +10 liters/min within 5% accuracy, but tighter correction factors can be obtained by combining this optional User Calibration procedure with the [SS11LB FLOWCAL Calibration Kit](#). The enhanced calibration settings are stored in the SS11LB transducer and used automatically by the Biopac Student Lab or AcqKnowledge software's SS11LB analog channel preset.

Equipment Required

- MP36/36R/35/45 hardware unit
- SS11LB airflow transducer
- FLOWCAL Calibration Kit (AFT27 3-Liter or AFT26 2-Liter syringe + AFT11D coupler)
- Biopac Student Lab software (version 4.1.1 or higher) or AcqKnowledge software (version 4.4.2 or higher with MP36R hardware)
- FLOWCAL Graph Template File
 - For AFT27 3-Liter syringe ó [download FLOWCAL-AFT27.gtl](#)
 - For AFT26 2-Liter syringe ó [download SS11LB-Calibration.gtl](#)

Hardware Setup

1. Connect the SS11LB airflow transducer to CH1 of the MP36/35/45 unit.



Figure 1: MP36/35 setup



Figure 2: MP45 setup

IMPORTANT: The SS11LB must be warmed up for at least 10 minutes prior to calibration. Keep the SS11LB connected to the MP unit and the MP unit powered on and connected to the computer during the warm-up period.

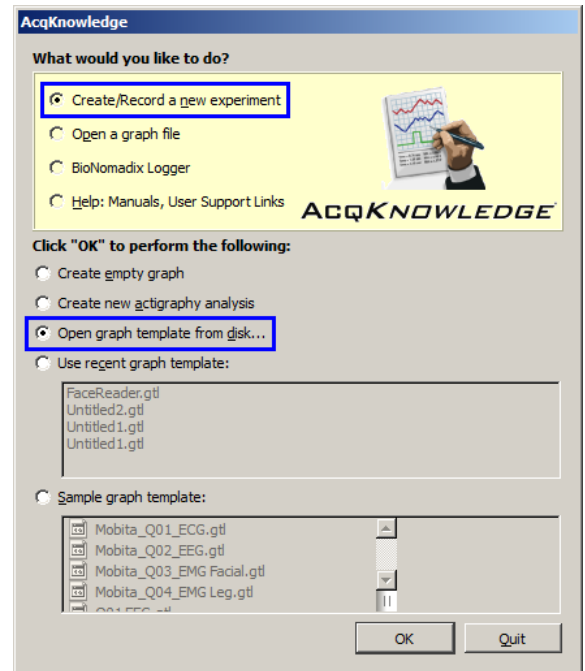
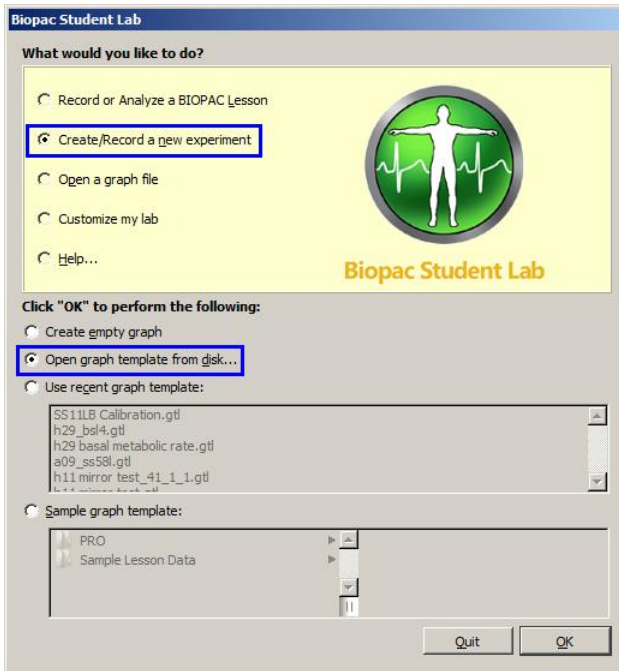
2. Connect the SS11LB airflow transducer to the FLOWCAL as shown (AFT27/26 syringe + AFT11D coupler).



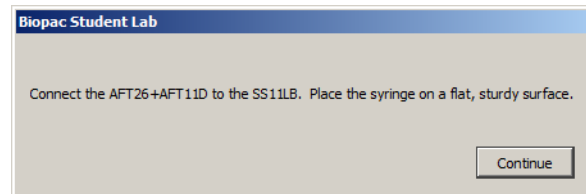
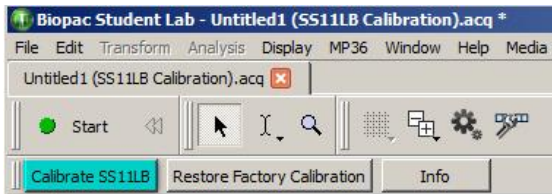
Figure 3: SS11LB and FLOWCAL (AFT27 or AFT26 + ATF11D) setup

Software Setup and User Calibration

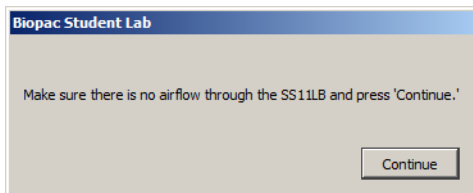
1. Download and save the [SS11LB-Calibration.gtl](#) graph template.
2. After the SS11L warm-up period, launch the BSL or AcqKnowledge software.
 - a. Select **Create/Record a new experiment.**
 - b. Select **Open graph template from disk** and click **OK.**



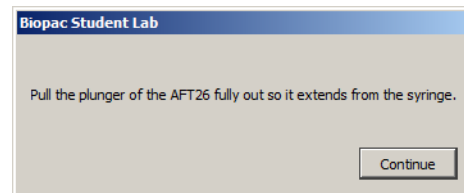
3. Navigate to the saved location of the [SS11LB-Calibration.gtl](#) graph template and click **Open.**
4. In the [SS11LB-Calibration.gtl](#) graph window, click **Calibrate SS11LB** and follow the calibration prompts.



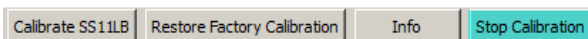
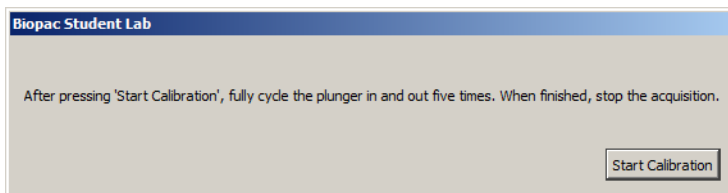
Prompt 1



Prompt 2

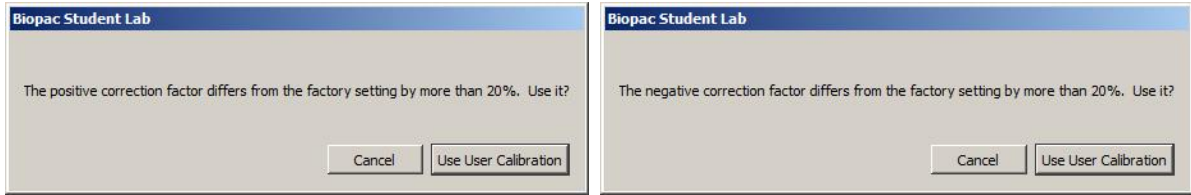


Prompt 3

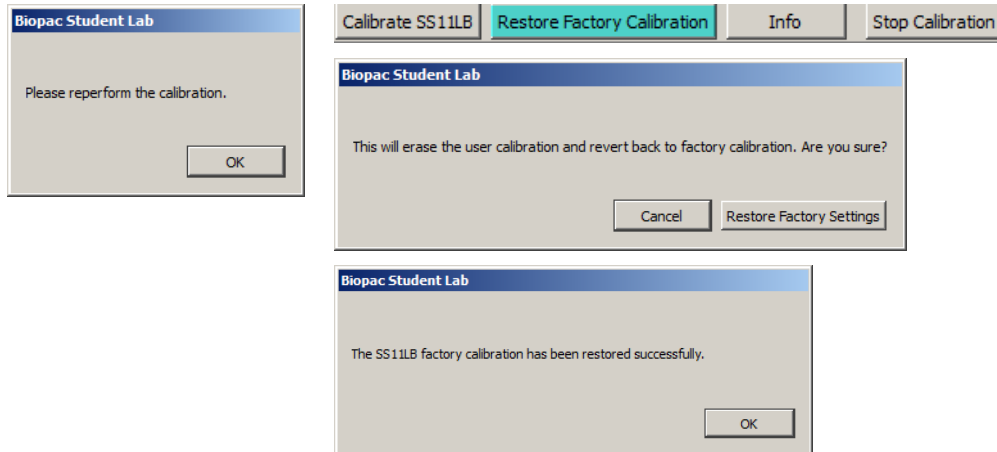


Prompt 4 and successful calibration confirmation

The following dialogs are presented if the new User Calibration settings fall outside of acceptable ranges. If this occurs, it's recommended that the calibration be rerun.



- To discard the User Calibration setting, click **Cancel**.
- Re-perform the calibration by clicking **Calibrate SS11LB**, or click **Restore Factory Calibration** to remove the User Calibration and return to default factory settings. (The factory settings can be restored at any time.)



- Click **Info** to display the current calibration settings stored in the SS11LB.

