



# Smaart SPL Mode QuickStart Guide

(Smaart Suite, SPL)

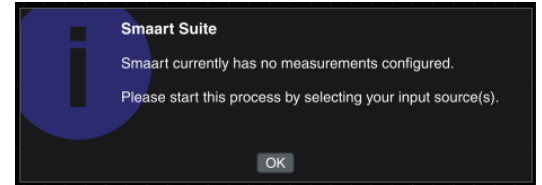
This is a step-by-step guide to initial configuration and measurement using Smaart's SPL mode, applicable to both Smaart Suite and Smaart SPL. To follow along with this guide, either launch Smaart for the first time, or head to the Config menu > Manage Configurations > Restore Defaults.

For help with SPL-specific Licensing, the SPL Webserver, or SPL measurement theory, please visit the Smaart SPL category of <https://support.rationalacoustics.com>.

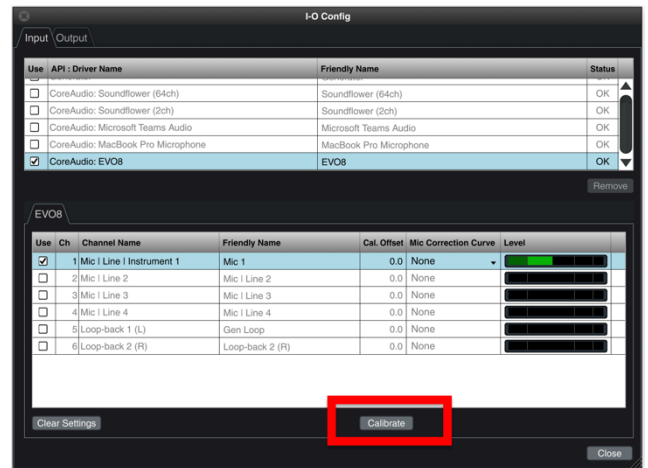
For additional assistance, please contact [support@rationalacoustics.com](mailto:support@rationalacoustics.com)

Before you start, we recommend connecting a recording interface to your computer, with a measurement microphone connected to a preamp with phantom power. You will also need access to an SPL calibrator. By the time you are through with this guide, you will be able to view and log SPL data using Smart's SPL Mode.

1. After launching Smart for the first time or restoring to defaults, you will be prompted to select your input sources. Select OK and continue to the I-O Config dialog.

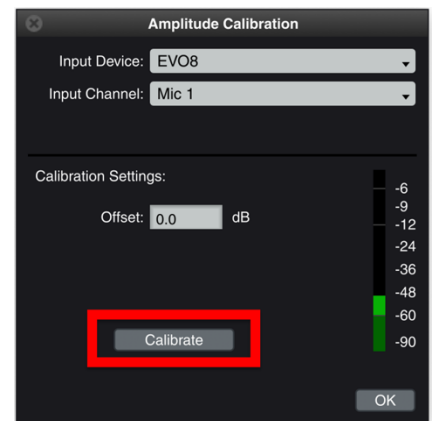


2. In the upper portion of the *Input* tab of I-O config, select the *device* you will be using for measurement. In this example: CoreAudio: EVO8. In the lower portion of this window, select the *input(s)* you wish to use for SPL measurement. We have selected *Mic|Line|Instrument 1*. It is helpful to also give your inputs a *Friendly Name* as that is what they will display as in Smart.



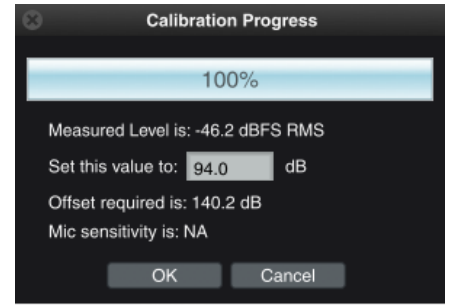
**Note:** there is no *Outputs* tab in Smart SPL.

3. Select the *Calibrate* button to open the *Amplitude Calibration* dialog and verify that the *Input Device* and *Input Channel* match what you wish to calibrate, so it is highlighted in blue, then select “Calibrate.” With your SPL calibrator on and fitted to your measurement microphone, adjust the preamp to a conservative level that will leave enough headroom so the input will not clip during the show. For concert level measurement, we recommend that your measurement rig be able to accommodate at least 135-140 dB peaks.

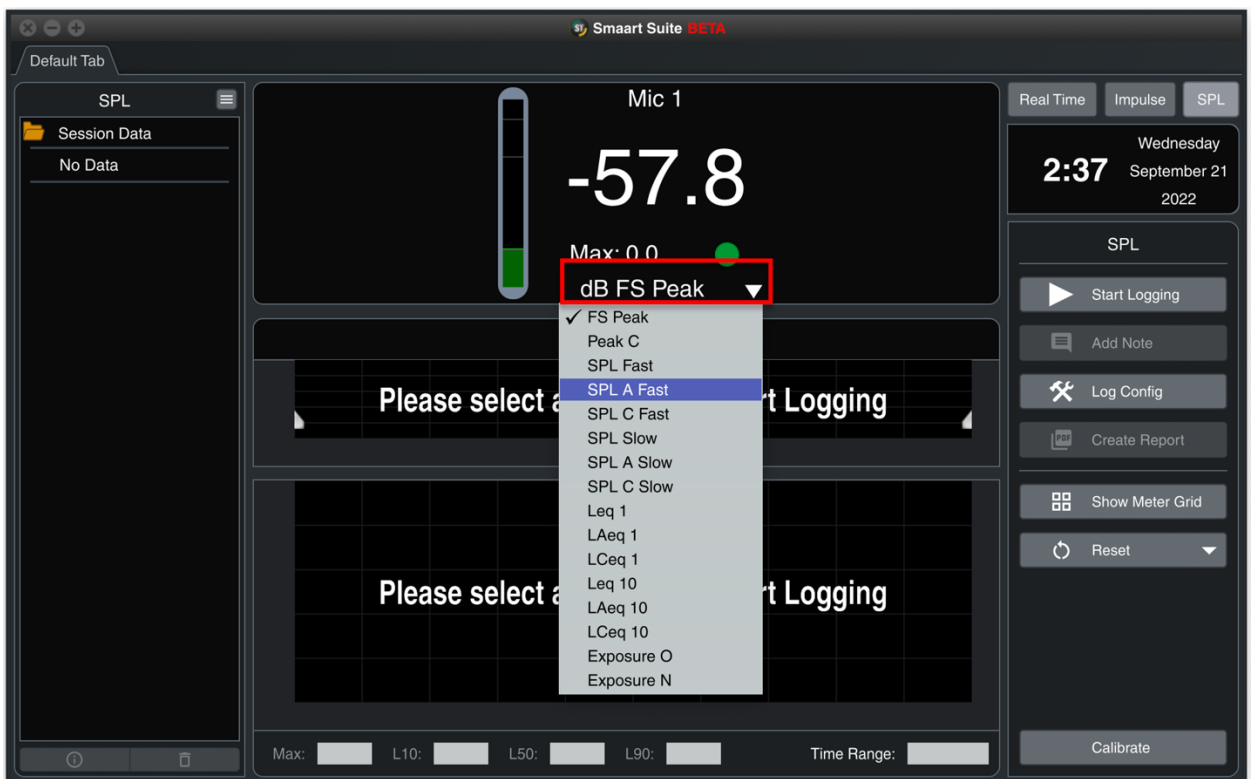
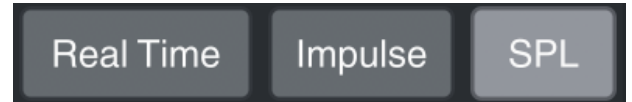


**Note:** Adding the approximate level of the input meter in the *Amplitude Calibration* dialog as a positive value to the level setting of your SPL calibrator will provide an estimation of the resultant max SPL capability. For ex: 48 dB FS + 94 dB SPL = 142.

4. Select the calibrate button. A new *Calibration Progress* dialog will appear. Once the progress bar has filled to 100% enter the level your calibrator is producing in the *Set this value to* field and Select *Ok* to close out of the window. If you wish you calibrate another input, use the dropdowns in the amplitude calibration window to select another input and repeat this step.



5. If you are using Smart Suite, select *SPL Mode* using the radio buttons in the upper right corner of the interface. If you are using Smart SPL, you will be presented with the SPL Mode main GUI with as many calibrated inputs already metering in the upper display area:

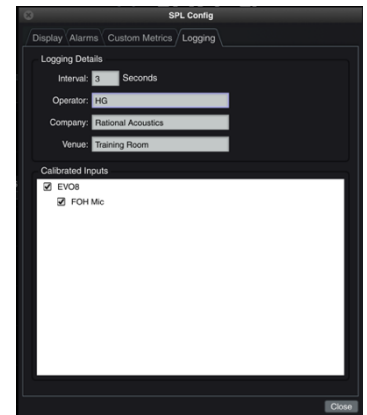


- To create additional free-floating SPL meters, select *Show Meter Grid Config* in the SPL control bar and use the hamburger menu in the upper right of the new SPL meter *Enter Meter Grid Config*. From here you can add or subtract meters non-destructively on-the-fly. Use the X and Y axis +/- buttons to add or remove meters. Return to the hamburger menu and select *Exit Meter Grid Config* to return the meters to their normal state.



- To log SPL data, start by selecting the Hammer & Wrench *Log Config* button in the SPL control bar and enter the necessary details for your event, chose the calibrated inputs you wish to log.

**Note:** this dialog has additional tabs to configure traffic lights, SPL Alarms, as well as *Custom Metrics* beyond the default 16 selections.



- Select the *Start Logging* button in the control bar to begin collecting SPL data. To view additional metrics, use the second dropdown in the top right corner of either plot.

