

# FG-Stress Calibration Procedure

The FG-Stress is the perfect replication of its hardware counterpart. If you want to compare the real unit with the FG-Stress, it is crucial that both the analog unit and the FG-Stress algorithm are calibrated the same way.

Indeed, the slightest calibration difference can change the sound, and the way that the compressor reacts to the audio. Because the FG-Stress has a feedback structure, the compression is highly dependent on input levels. Program dependence will affect the sound as well, as different audio content change the envelope behavior.

**Please review the calibration tutorial video, and follow carefully these steps to properly make the comparison: <https://youtu.be/GeOJA8tAnpo>**

- First, download the package which includes the required audio files for the procedure: <http://download.slatedigital.com/vmr/fg-stress/FG-Stress%20Calibration%20Files.zip>
  
- Choose a ratio on your hardware unit, we recommend starting with 6:1.
  
- Set the parameters to the following:
  - **Input 5 / Output 5**
  - **Attack Min (0)**
  - **Release Max (10.5)**
  - No filter, no link, no sat, no British mode
  
- Play the corresponding ratio calibration file in a session at 96kHz. These files are available in the "Calibration Files" folder. Route one of the channels of the audio file to one D/A output and to your hardware unit. The 0dBFS of the file must play at 0dBFS out of your converter.
  - Play the file corresponding to the ratio you selected.
  - Loop the first four hits of the calibration file, which is a drum loop with calibrated levels.
  - **Adjust the Input knob of the hardware unit** in order to read the following values on the **gain reduction meter** in succession: **10, 9, 8, 7**.
  - Make sure to play the loop for at least the 8 full bars of the file.
  - The meter should read 10 on the first kick, 9 on the first snare then 8, then 7.

NB: You may end up with different input calibrations for different ratios. This is normal. For example, your calibrated input may be 5.3 for a 6:1 ratio, and 5.5 for a 10:1 ratio. **For extra clarification on this process, please reference to the calibration tutorial video.**

- Once you have the input setting per ratio, you must keep the input at that setting and use the file level to determine how much gain reduction you want.
  
- You can now process the three audio files we have provided through your hardware unit. You can find those files in the "Test Files" folder.

IMPORTANT: You must **only use one of three settings for attack and release**: 0 (min.), 5 and 10.5 (max). Potentiometer tolerances vary from unit to unit, so in order to do initial matching, we need to keep it at these values.

In addition, **you must keep your output level at 5**. This will give us a uniform output level to level match to.

- Record the return of your hardware unit at 96k/24bit.
- Bounce to a wav file.
  
- Be sure to name the file using the following standard: "Your Name\_Ratio x\_Detector/Audio x\_Ix\_Ax\_Rx\_O5". For example: Steven Slate\_Ratio 6\_Det HP\_Aud Dist 3\_I5.4\_A0\_R10.5\_O5

Please note that we suggest re-calibrating your input for each ratio. Although you may not have to calibrate for each ratio, some ratios might need to be recalibrated to match our calibration files.