

Experiment HP-3: The Galvanic Skin Response, Deception, Cognitive Complexity, and Vigilance

Equipment Required

PC or Mac Computer

IWX/214, USB cable, IWX/214 power supply

GSR-200 GSR amplifier, electrodes, and extension cable

Start the Software

1. Click on LabScribe
2. Click Settings → Human Psychophysiology → GSR-B
3. Once the settings file has been loaded, click the **Experiment** button on the toolbar to open any of the following documents:
 - Appendix
 - Background
 - Labs
 - Setup (opens automatically)

GSR Setup

1. Locate the GSR-200 galvanic skin response amplifier, male-male DIN8 cable, and GSR electrodes ([Figure HP-3-S1](#)) in the iWorx kit.

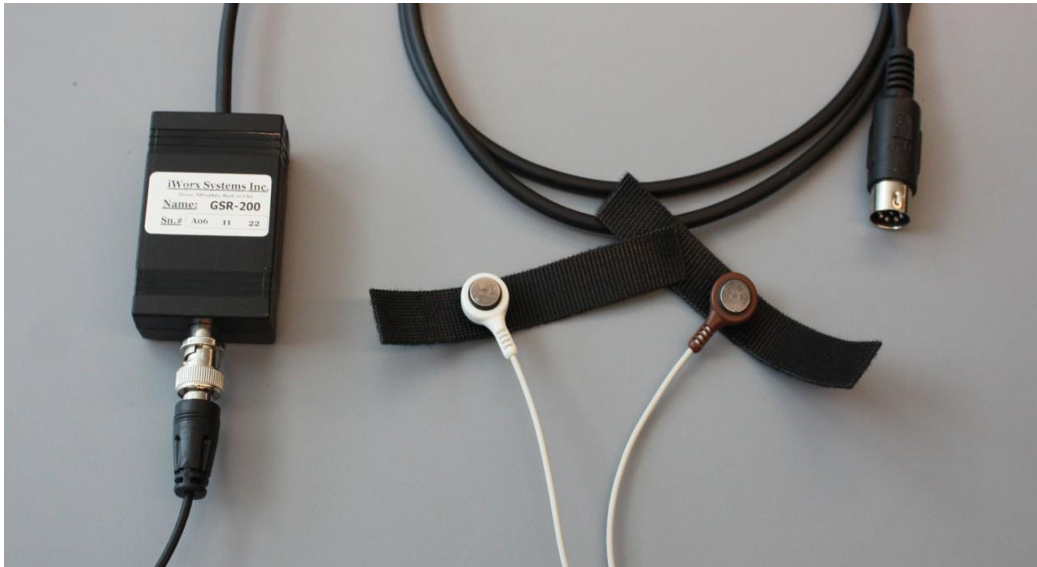


Figure HP-3-S1: The GSR-200 galvanic skin response amplifier.

2. Plug one end of the male-male DIN8 cable into the female DIN8 connector on the GSR-200 galvanic skin response amplifier. Plug the other end of the DIN8 cable into the Channel 4 input of the iWX/214 ([Figure HP-3-S2](#)).

Calibration of GSR Amplifier

1. Place the GRS electrodes on the lab bench so they are not touching any surfaces.
2. Click on the Record button; record data for 1 minute.
3. Click on the Stop button.



Figure HP-3-S2: The GSR-200 connected to an IWX214.

4. Set the baseline to zero:
 - Click the down arrow to the left of the GSR channel to open the Channel Menu
 - Click Units
 - Click Set Offset ([Figure HP-3-S3](#))
 - Set the offset to 0 and check Apply to all blocks
 - Click OK.

Note: The GSR-200 galvanic skin response amplifier is factory calibrated so that an output of 1 Volt is equal to 5 microSiemens (μS). This calibration factor is programmed into the LabScribe recording software by the GSR-A-LS2 settings file used in this experiment.

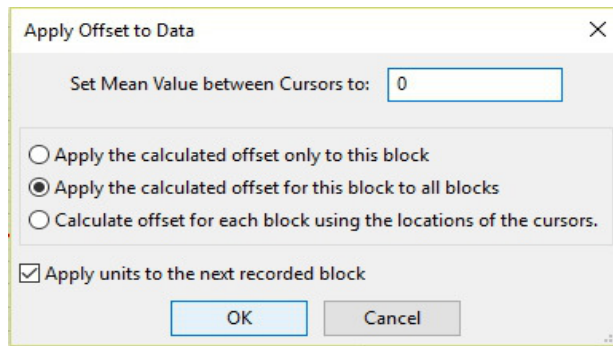


Figure HP-3-S3: Apply Offset window for setting the GSR unit to “0”.

5. To check the programming of the calibration:

- Click on the arrow next to the title of the Skin Conductance Level channel to open the channel menu.
- Select Units from the channel menu and Simple from the Units submenu.
- The Simple Units Calibration window will appear with the values for the two-point calibration of the GSR-200 amplifier already entered.

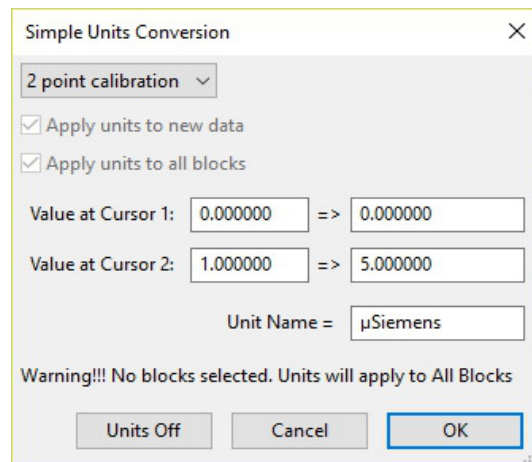


Figure HP-3-S4: Simple Units Conversion window for GSR-200 amplifier.