

# CHI200B Picoamp Booster and Faraday Cage

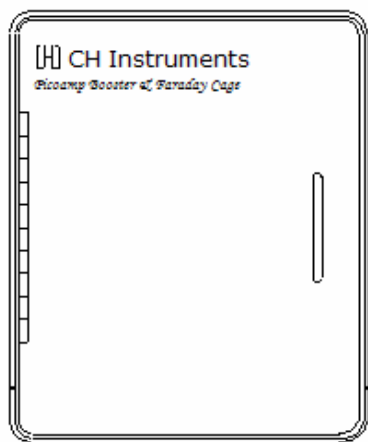
With the CHI200(B) Picoamp Booster and Faraday Cage, current down to a few picoamperes can be readily measured. The CHI200 is compatible with the Model 600/A, 700/A series of instruments, while the CHI200B is compatible with Model 600B/C/D/E, 700B/C/D/E and 800B/C series. When used with 700/A/B/C/D/E and 800B/C series bipotentiostat, the Picoamp Booster will affect only the primary channel.

The internal sensitivity of the 600B/C/D/E series is the same as the Picoamp Booster ( $1 \times 10^{-12}$  A/V). However, the bias current of the 600B/C/D/E series input can be as high as 50 pA. The Picoamp Booster has a lower bias current, and it also brings the preamplifier close to the electrode, resulting in lower noise. The Faraday Cage also makes it possible to make relatively fast measurements of small currents.

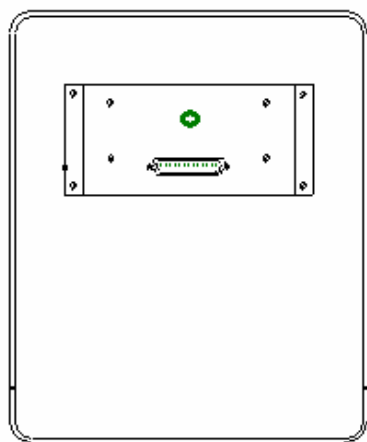
When the Picoamp Booster is connected and the sensitivity scale is at or below  $1 \times 10^{-8}$  A/V, the Picoamp Booster will be automatically enabled. Otherwise, it will be disabled. Detection and enabling/disabling of the Picoamp Booster are fully automatic and do not require user intervention.

The Picoamp Booster will be disabled for techniques using automatic sensitivity switching, such as Tafel plots and bulk electrolysis (BE). For galvanostatic techniques, such as chronopotentiometry (CP), chronopotentiometry with Current Ramp (CPCR), Mult-Current Steps (ISTEP), and potentiometric stripping analysis (PSA), the Picoamp Booster will not work. However, it works with AC impedance (IMP).

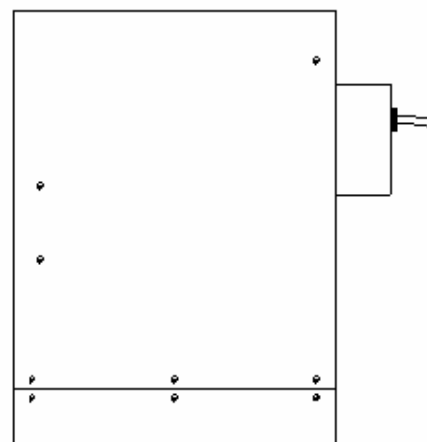
In addition to allowing weak signal measurements, the Faraday cage is useful for eliminating electrical interference, especially line frequency noise. If the electrochemical cell is picking up electrical noise from the environment, the additional use of Faraday cage is strongly recommended.



Front View



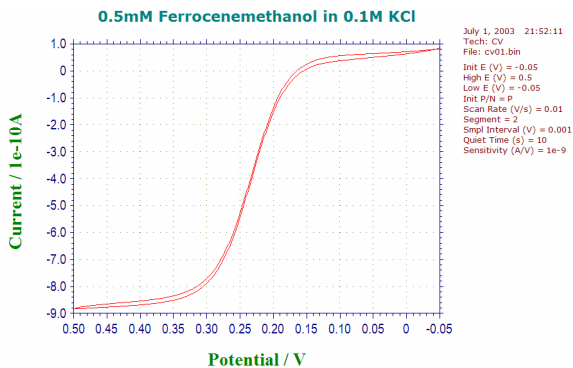
Rear View



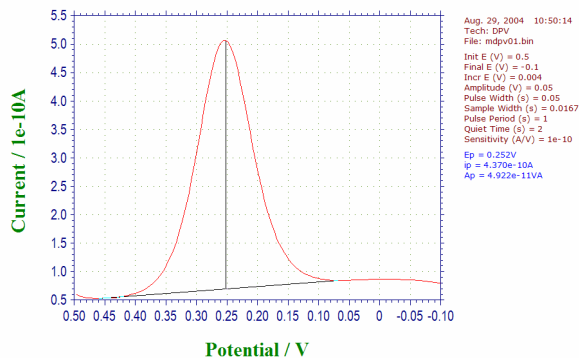
Side View

Dimension: 9.6"(W) × 8.8"(D) × 11.8"(H)

Weight: 10 lb.



Cyclic voltammogram at an ultramicroelectrode.



Differential pulse voltammogram at an ultramicroelectrode.