

## Supporting information

Figure 1.si – Software control window

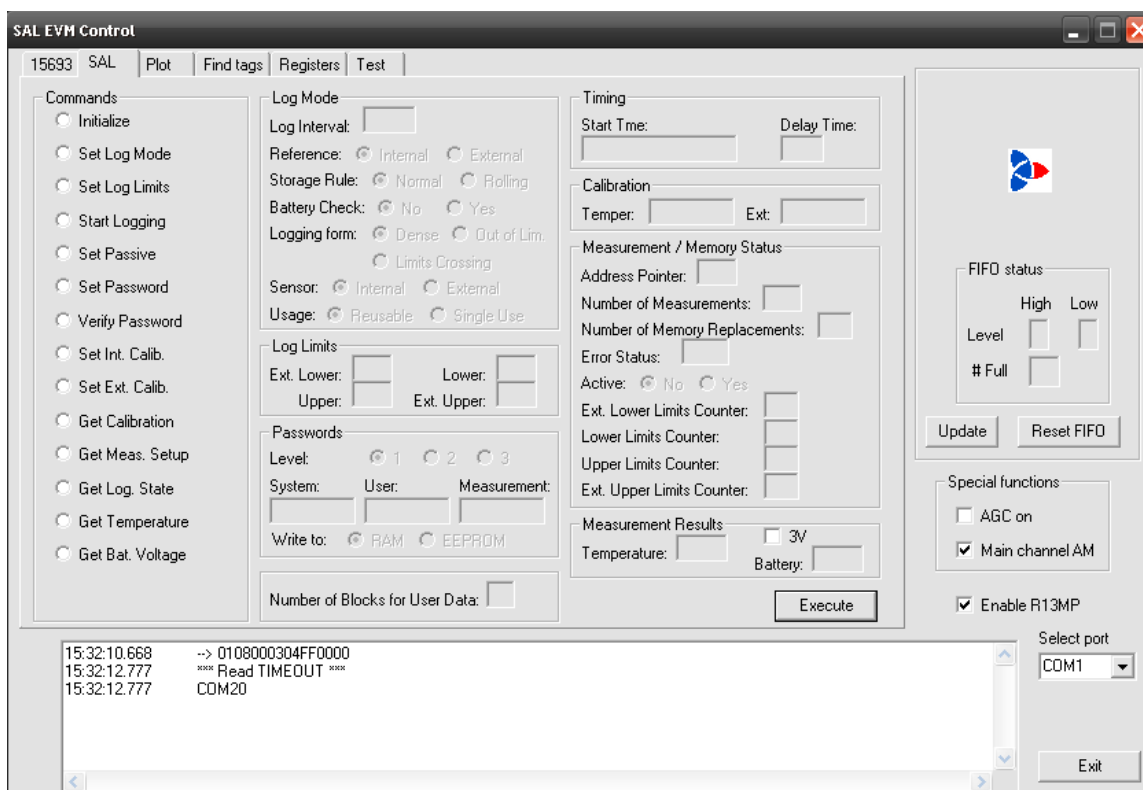
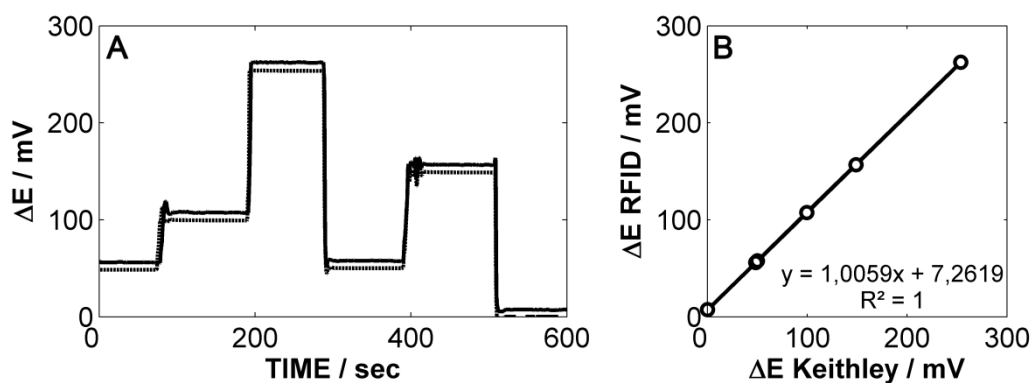


Figure 2.si – A) Potential trace of (--) Keithley and (-) GoSense RFID read from a regulated power supply. B) Comparison between both potentiometers.



### Statistical tests:

1. T-test for slopes of Figure 3 (B and D).

K:  $t_{(\text{Keithley vs. Lawson})} = 0.59$  ;  $t_{(\text{Keithley vs. RFID})} = 0.31$ ; and  $t_{(\text{Lawson vs. RFID})} = 0.92$ ; with  $t_{(0.025,6)} = 2.45$ .

Mg:  $t_{(\text{Keithley vs. Lawson})} = 0.35$  ;  $t_{(\text{Keithley vs. RFID})} = 0.61$ ; and  $t_{(\text{Lawson vs. RFID})} = 0.35$ ; with  $t_{(0.025,6)} = 2.45$ .

2. ANOVA for values in Figure 4.

$F_{(10^{-7}M)}=0.007$  and  $F_{(10^{-1}M)}=0.024$ ; with  $F_{(0.05,9)}=4.414$ .

3. T-test for slopes of Figure 5.

$t_{(\text{Keithley vs. RFID})} = 0.64$ ; with  $t_{(0.025,\infty)} = 1.96$ .