

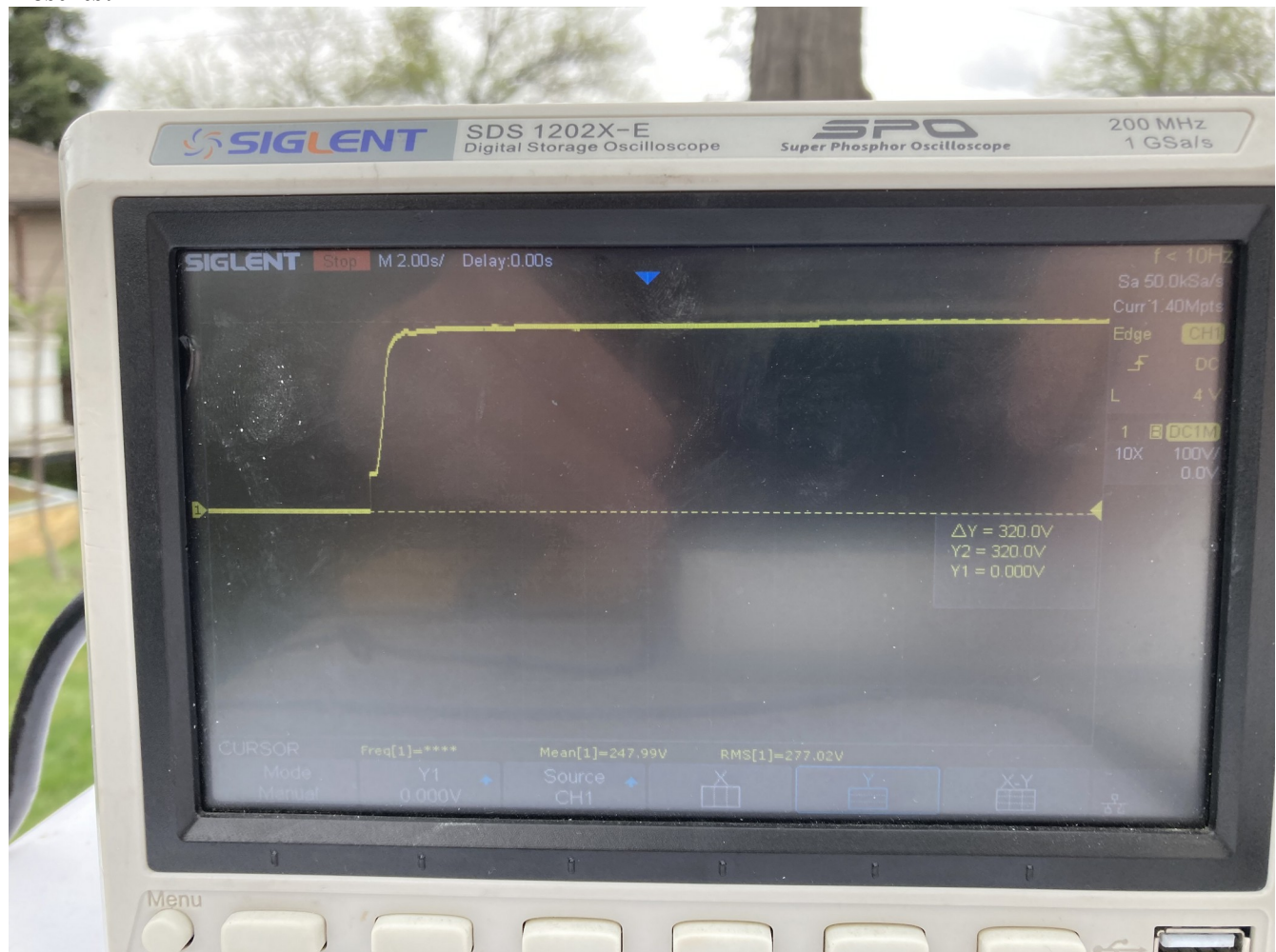
## Preliminary Contactor Close Test (5/13/2023)

### Test Firmware Rev: 1

**Purpose:** It is imperative that the contactors that isolate the battery being charged from the system voltage source close at the correct time. If this does not happen, then the battery may receive an incorrect voltage, which could have catastrophic consequences.

**Description:** A preliminary version of the system with isolation contactors is built. An oscilloscope is attached to the battery side of the contactors with the system open circuit. The contactor closing time and voltage ramping is observed. At the time of the test, there seems to be a problem with the control capabilities of the system. The cause of this is unknown.

### Results:



**Analysis:** The contactors do seem to close at the right time, that is, after the THROTTLE DOWN phase. This is evident from the small step and then the ramp up in the voltage response. However, the ramp up does seem to be occurring too quickly, which is the reason for believing there is something wrong with the control system.