Instructions for programming the Nortek Signature 1000

1. Log into CEHG (pwd: !!cehg2023!!) and launch Signature Deployment
2. Plug in instrument (power over ethernet) and connect ethernet to laptop
3. Sync computer time to internet time (UTC time-zone)
4. Click: Communication>Connect to Instrument,
   1. Click: Discover. If instrument doesn’t pop-up, wait 1-2 minutes and repeat; if still not working cycle instrument power.
   2. If you may need to disable DHCP and manually enter the instrument’s IP.
5. May be prompted to upgrade firmware. Current version is: 2215\_15
   1. If you upload a new firmware you’ll be automatically disconnected when finished
   2. To reconnect, write click the instrument in the Connect to Instrument window,
   3. Select, Terminal window
   4. Issue command:  
      FORMAT,9999
6. Instrument
   1. Length: 25 days
   2. Internal: 90 Wh Alkaline
   3. External: 540 Wh Alkaline
7. Application:
   1. Concurrent plans: Average & waves and burst using 5 beams
   2. Echosounder checked
   3. Alternating plans: no
8. Environment:
   1. Salinity: 35 ppt
   2. Up-looking
   3. Instrument depth: 13 m (10m target w/ 3m buffer)
   4. Fixed frame
   5. Strong waves checked,
   6. Tidal range: 1m
9. Average:
   1. Range:
      1. Start of profile: 0.2 m
      2. End of profile: 13 m
      3. Cell size: 0.5 m
   2. Sampling:
      1. Average Interval (how long to average): 300 s
      2. Measurement Int (how long btwn avgs): 00:05:00
      3. Measurement load: 100%
   3. Options: ENU
10. Echo Sounder:
    1. Range:
       1. SOP: 0.2m
       2. EOP: 13 m
       3. Cell Size: 0.05 m
    2. Echogram 1
       1. Pulse compression checked
       2. Transmit length: 0.5 ms
       3. Power Level: max
    3. Echogram 2-3 (not enabled)
11. Waves and Burst
    1. Range:
       1. SOP: 0.2 m
       2. EOP: 13 m
       3. Cell Size: 0.5m
       4. Power level: max
    2. Sampling:
       1. Measurement Interval: 01:00:00
       2. #samples: 4096
       3. Sampling Rate: 2 Hz
       4. Measurement load: max
    3. Echogram1:
       1. Uncheck store raw echo data
12. Save & Deploy
    1. Okay that the battery will die after 24.8 days
    2. Deployment Name: make one, and document it somewhere
    3. Uncheck: Deployment time>Now;
    4. Set Deployment time to morning of deployment (so we’ll see the light)
    5. Synchronize clock to PC time checked
    6. LED: On for 24 hours
13. Click Deploy:
    1. Log the instrument depth (should be >=0), if not adjust pressure offset