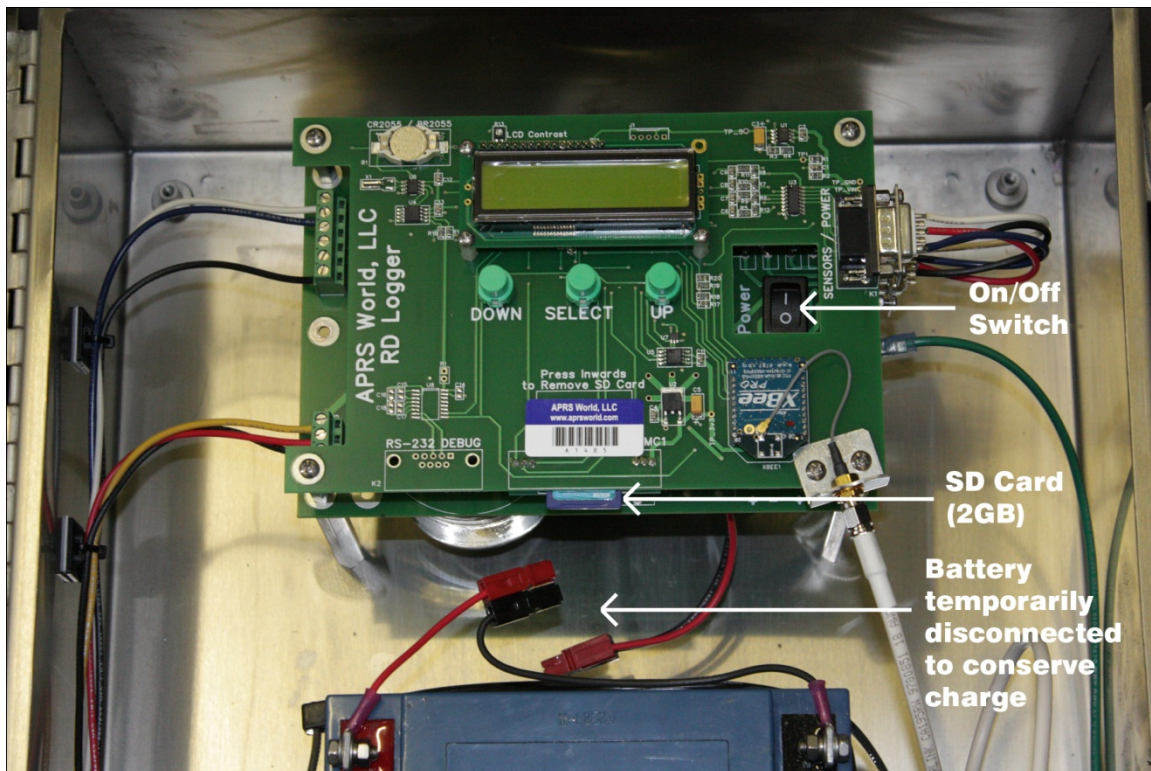# rdLogger Front Panel Operation Instructions

Revised 2011-05-23

Powering

The rdLogger is powered from a 12 volt deep cycle battery and a solar panel. As shipped, the battery will be disconnected from the circuit board. Simply plug the red and black connector from the battery into the main circuit board red and black connector. Power for the data logger is switched by the on/off switch visible through a cutout in the circuit board.

The solar panel should be connected to the unit to maintain battery charge during operation on the crane. The solar panel should be installed horizontally in locations where snow is not likely. In locations with snow and ice the solar panel should be installed vertically on the crane boom.

We recommend disconnecting the battery before placing the unit in storage. If the unit is to be stored for an extended period of time, we recommend using an appropriate float battery charger to maintain the battery.

Setting Date and Time

1. Use your *up* or *down* button to come to the date set menu. Press the *select* button to set the date.	**Date Setup Screen** Date: 2007-07-12 Prev Set Next
2. The last digit of the year is underlined. Press down to decrease the year or up to increase the year. When year is correct, press SELECT to set the year and move to the month. Set the month and day using the same method. Press select to return to the Date Setup Screen.	**Changing the Date** Date: 2007-07-12 — Set +
3. Press up button to advance to the Time Setup Screen. Press select to set the time.	**Time Setup Screen** Time: 10:33:37 Prev Set Next
4. Note that the last digit of the hour is underlined. Press the down to decrease the hour or up to increase the hour. When the hour is correct, press the select button to set the hour and move to the minutes. Set the minutes and seconds using the same method. Press *select* to return to the Time Setup Screen.	**Changing the Time** Time: 10:33:37 — Set +

Sample Screen Shots

SCREEN 1: Wind speed in meters per second. Gust is the maximum wind speed observed since the last recording (resets every 60 seconds).	Speed: 0.0 m/s Gust: 0.0 m/s
SCREEN 2: Date and Time Screen	Date: 2011-05-18 Now 15:56:17 UTC
SCREEN 3: Number of memory pages used / number of total pages When the memory is completely full, it will stop recording to internal memory. The internal memory can be cleared, but it is important to have a backup of the data prior to clearing the memory.	Internal Memory 1390/4096 full
SCREEN 4: SD Card Status (whether SD card is logging or not)	SD Card Status: Not Ready!
SCREEN 5: **T:** Time between the last two anemometer pulses in 100 microsecond resolution. This value is used to calculate current wind speed. **Tmin:** Minimum value since the last recording (used to calculate wind gust). **Count:** Total number of anemometer pulses since the last recording. All values reset every 60 seconds.	00000 65535 0000 T Tmin Count

SCREEN 6: Battery Status Shows battery voltage and percentage (typical example would be 12.8 volts with battery @ 100%)	`Input: 8.8 volts` `Battery: 0%`
SCREEN 7: Countdown timer showing the number of seconds that the wireless transmitter will remain on. This value will normally be 0, as the wireless transmitter is turned off to save power. Every 10 seconds, the wireless transmitter will turn on for 1 second to transmit a data packet, as well as listen for an incoming signal. The wireless transmitter will be on for an extended period of time if the unit is communicating with one of the USB modems, or if the data is being downloaded remotely. When remote communications cease, the transmitter will automatically return to sleep mode after 250 seconds of inactivity.	`Wireless on:` `0 seconds`
SCREEN 8: Date set screen (see instructions above)	`Date: 2011-05-18` `Prev  Set   Next`
SCREEN 9: Time set screen (see instructions above)	`Time: 15:56:17` `Prev  Set   Next`
SCREEN 10: **Page Req:** Shows which internal memory page has been requested for download by the remote download software. **N Pages:** Shows the total number of pages requested for download by the remote download software.	`Page Req:65535` ` N Pages:00000`

Logging

The rdLogger will record date and time, wind speed, wind gust, average wind speed, and battery voltage to internal memory whenever it is on. The rdLogger has a fixed 1 minute recording interval.

When a Secure Digital (SD) card is in the memory card slot (located below the serial number label) it will also record to the Secure Digital card. We recommend that an SD card be left in the unit at all times. Before moving to the next site, we recommend that the data from the SD card be copied to a computer and then data files deleted off of the SD card.

Clearing Internal Memory

Warning! Make sure you have a backup copy of your data before clearing the memory!

The rdLogger will store approximately 4 months of wind data in the internal memory. As the memory fills, the remote download process will take longer and longer. The internal memory of the rdLogger can be reset using the remote download software. It can also be reset manually by turning off the logger and holding down all three buttons while turning the power back on. Continue to hold the buttons for approximately 10 seconds until the following screen appears:
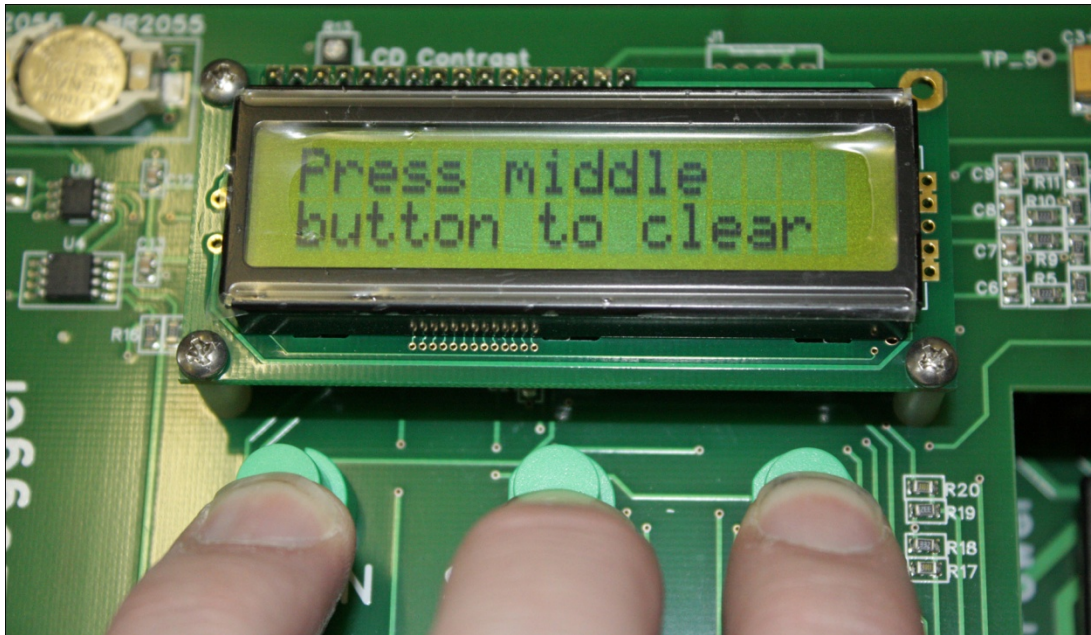
When this screen appears, release all three buttons and press the middle button. The following screen will be displayed, confirming that the internal memory is being cleared:
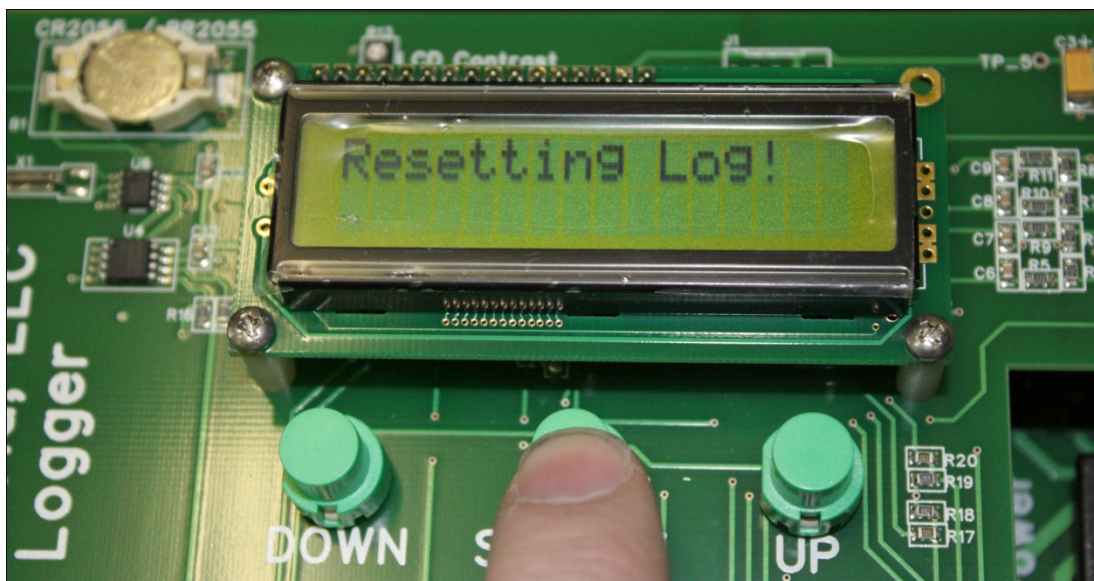
This action cannot be undone! We recommend you only perform this action after making a backup of the data files on your computer.