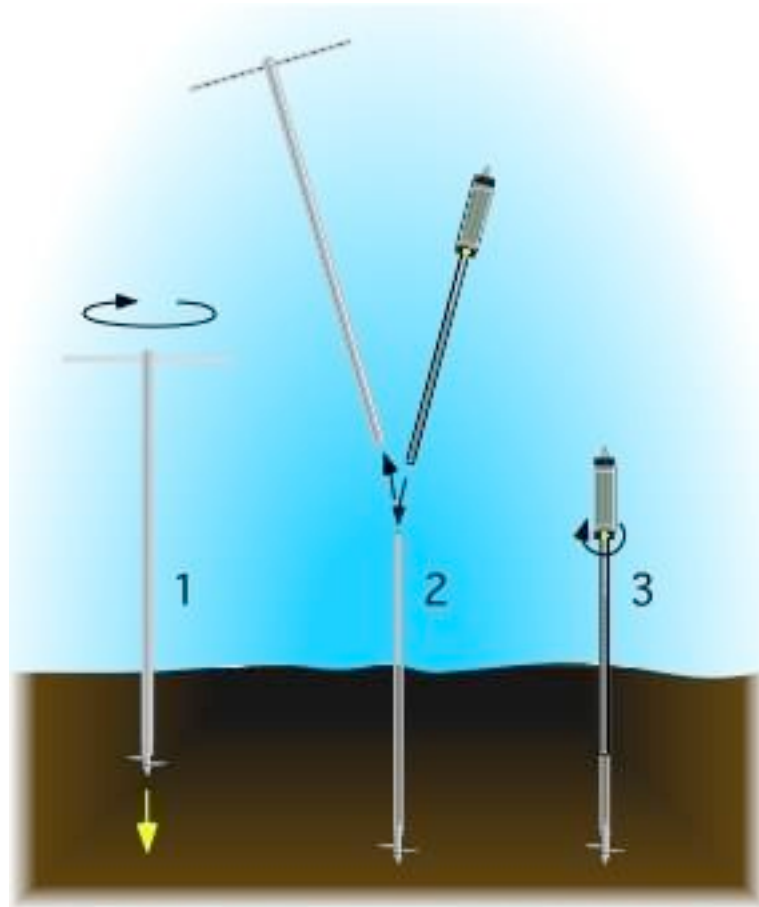


# SediMeter Quick Guide



- Screw the outer tube to the steel anchor screw
- Insert the handle bar in the hole of the handle tube and secure with the pin
- Set up the SediMeter and make sure the o-rings are clean and greased
- Use the handle tube to screw down the anchor counter-clockwise (CCW)
- Remove handle, insert SediMeter
- Tighten the screw barely enough so the SediMeter can not slide up
- *Retrieving*: first create a depression to the lowermost OBS to prevent scratches
- Remove the SediMeter, and if the tube is not loose already...  
Put on the handle and screw the anchor up clockwise (CW)

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## Document Scope

This is a quick guide for the SediMeter and LogDator instruments rev. 2, and the SediMeter™ software, ver. 2.0.

### *Document Version*

Rev. 2.0, 2009-04-07

## Legal Notice

Refer to complete manuals for warranty and copyright information.

## Installation

Insert the CD and follow the instructions. Do not change the default directories, as it may prevent the software from working properly. You will get warnings that the software has not been certified; this is normal (it would be cost prohibitive to certify the software, since every time a minor update was made it would have to be re-certified).

### **Installing USB drivers**

Locate the setup file identified in the ReadMe document, and double-click it. Again, you may get warnings (at least under Vista) that the drivers have not been certified; this is normal.

USB drivers are not required for using the software with SediMeter instruments that do not support USB.

# Using One SediMeter

## Preparing a SediMeter for deployment as stand-alone logger

1. Connect the SediMeter to the computer using either USB or RS-485
2. Start SediMeter.exe
3. Select the [virtual] serial port that the SediMeter is connected to (e.g., COM1)
4. Select the connection type, USB or RS-485; in the latter case also select instrument NetAddr in the Send To field at the bottom of the window
5. Click Connect; a change in appearance of the button indicates success
6. Click on the Setup tab
7. Enter start time in UTC to any time within the next 24 hours (00:00:01 < hh:mm:ss < 23:59:59)
8. Enter measurement interval (00:00:01 < hh:mm:ss < 23:59:59)
9. Optionally enter burst sample interval (in units of 1/32756 s) and count (from 0 for none, to 84), making sure that the burst sampling is finished before the next measurement starts
10. Click Set to send the settings to the connected SediMeter
11. Click Get to read the settings back; the time difference indicator should now show 0
12. Click the Special tab
13. Select Log Mode
14. Click Set
15. Click the Connect tab
16. Click the Connect button to free the COM serial port
17. Disconnect the SediMeter

## Deploying a SediMeter

1. Make sure the O-rings and O-ring grooves are clean and that O-ring grease has been applied
2. Close the SediMeter with a moisture absorbing bag inside
3. Screw the outer (holder) tube onto the stainless anchor screw
4. Keep an eye on the SediMeter while submerging it to make sure there are no leaks
5. Mount the handle over the anchor screw and screw it down to the predetermined depth (a ring of masking tape can be put on the handle tube before the dive)
6. Carefully pull the handle straight up after freeing it from the bayonet
7. Carefully insert the SediMeter straight down so it does not get scratched
8. Tighten the yellow screw just enough to barely hold the SediMeter in place

# Setting up a Network

Assign one unit—typically a LogDator—as the master logger. Prepare all the other units (typically SediMeters). Deploy them, either with cables connected or connect the cables after they have been put in place. The final step depends on whether the master unit is above water or not.

## Master logger above water

- Plug in the master logger.
- Connect power.
- Insert a memory card and make sure it is mounted.
- Set up the clock and other parameters, going through the menu from left to right (or use a computer connected via USB).
- Do a Roll Call, and verify that the instrument count is correct (it should include the master itself).
- If you are uncertain about the measurement interval being too short, return after the roll call to verify that the Interval has not changed (it will automatically increase if required).
- Set Sleeping Pill to On.
- As the final step switch mode to Master mode. This will trigger the creation of files on the memory card and send the slaves to a low-power state.
- Switch off the display before closing the house.

## Master logger below water (or in another hostile environment)

- Put batteries in the master logger so it powers up.
- Insert a memory card and make sure it is mounted.
- Set up the clock and other parameters, going through the menu from left to right (or use a computer connected via USB).
- Set Sleeping Pill to On.
- Close the house.
- Connect the master logger to the network.
- Connect power to the network.
- Switch on the display using a magnet.
- Step through the modes to Master mode using a magnet. This will trigger first a Roll Call, then the creation of files on the memory card.
- Keep your eyes on the display to verify the instrument count, and that there is no error reported before the display turns off. The final message should be “Mode – Master”

## **Battery check**

At any time one can turn on the display to show temperature and battery voltage by approaching a magnet to the reed switch. After showing these values for a few seconds the display will switch to show the mode, before turning off automatically.

## **Interrupting logging for switching card (and maybe batteries)**

This is a controlled way to change cards in network logging:

- Open the house and turn sleeping pills off
- Set the display to show Next and Actual time
- The display will show when it is measuring.
- When the measuring is over the slaves will be awake so that you can replace the card and set up measurements with a new card as described above.

If your master logger is under water your only choice is to unplug it first, as follows:

- Unplug the master logger
- Bring it to the surface and open it
- Turn on the display and check how long time remains until the Next measurement; until that time comes, the slaves will not wake up, and until they do, the new sequence cannot be started
- Remove the old card, insert a new, and proceed as above, but do not switch to Master mode again until AFTER the Next time from the previous sequence has passed

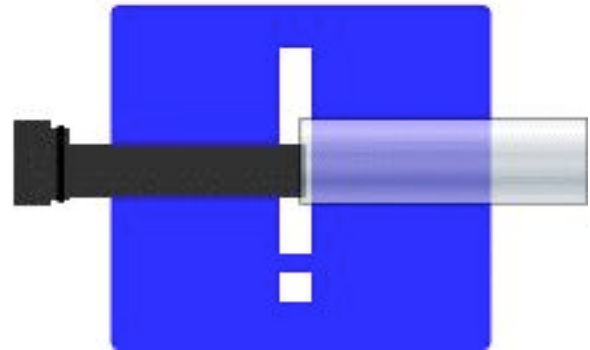
The network can be powered by an external battery pack, or even solar panels. One way to force the slaves to wake up is through a power-down reset. However, due to their very low power drain, and large backup power reserve, a power-down has to last well over half an hour to have an effect (to be certain, leave the power off for an entire hour). Thus, in most cases the measurement interval is shorter, and so they will wake up sooner by themselves.

## Opening and closing

### **WARNING!**

**NEVER tilt the cylinder DOWN when sliding the end of it over the frame!**

- The corners of the stainless steel panel can scratch the inside of the cylinder just at its mating surface, thus causing it to leak.
- It is OK to gently slide the cylinder against the black plastic frame, since they are made of the same material why neither will scratch the other.



## Don't

**Do not leave the instrument connected to USB for an extended period of time without taking out the batteries.** (Connecting to USB increases the power consumption, but as long as the batteries are installed the power is taken from them instead of from the USB cable.)

**Do not leave a network slave with the display showing temperature and battery after starting measurements.** The updating of the display may conflict with the collection of data for the network master. If the slave freezes you may have to reset it with the reset button.

## Further Information

Connect to [www.lindorm.com/downloads.html](http://www.lindorm.com/downloads.html) for the latest

- Manuals
- Drivers
- Software versions
- Calibration files
- Application notes, etc.

Also, consider registering your purchase with Lindorm, Inc., so that you may be given notice when updates are available. Register by sending complete contact information and product model and number to:

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### Environmental

Temperature range:	0°C — 50°C
Maximum recommended depth:	50 m
Absolute maximum depth:	TBD
Maximum altitude / minimum pressure:	TBD

Humidity: Only open the logger in non-condensing conditions. Always put a package of dry desiccant in the logger house before closing it.