FAQ's

Start typing

USD

FAQ

LiDAR applications

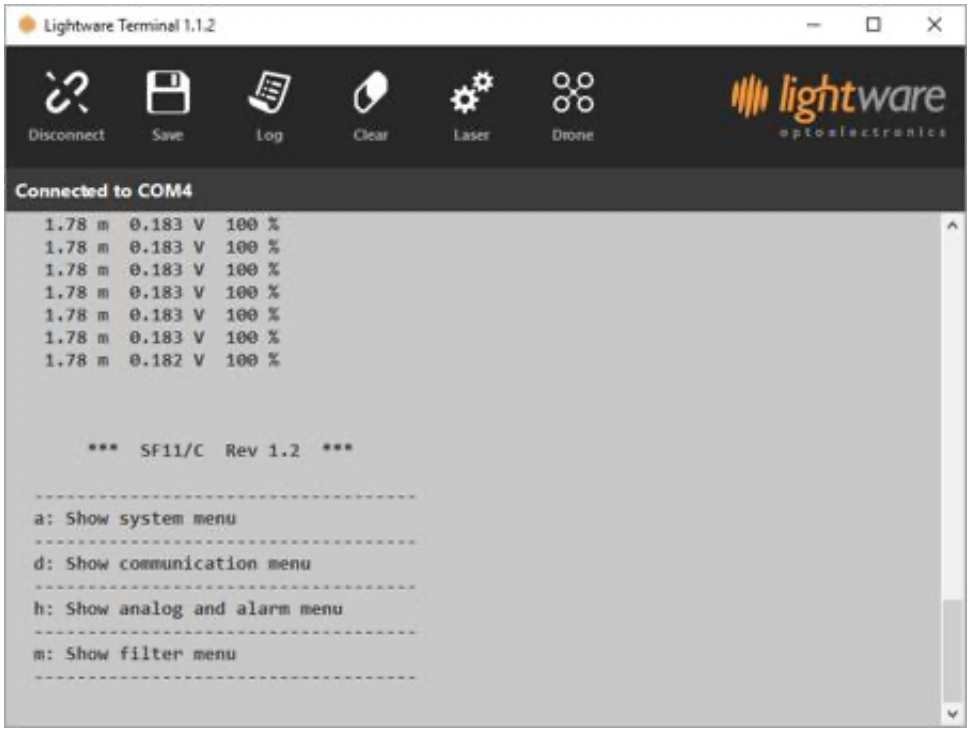
What are the recommended settings for an SF11/C to measure altitude over water

Reading altitude off a water surface is quite challenging, especially during bright sunshine. The laser signal can be lost within the water and sunshine reflecting off the water surface causes noise and false readings.

LightWare suggests changing the rangefinder's settings before flying over water. This can be done either through the user manual or in flight, using the extensive command sets available for serial and I2C communication.

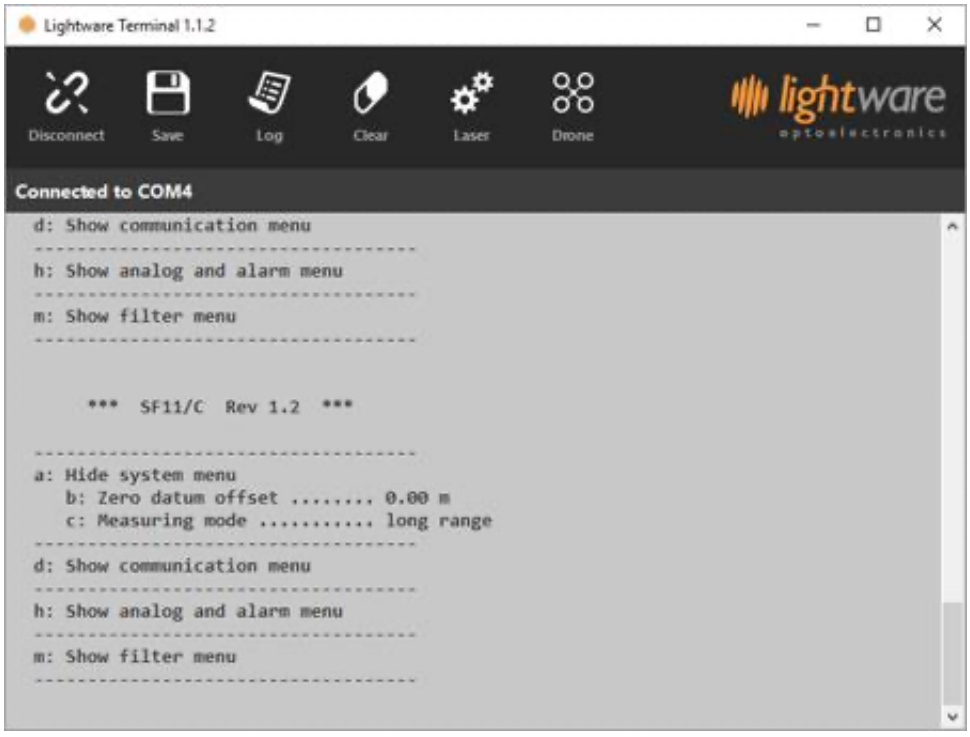
Step 1: Connect the rangefinder to the LightWare Terminal program. The rangefinder will automatically start reading.

Step 2: Press the <**space bar**> to stop the readings and display the menu.



Step 3: Press the <**a**> key to open the system menu.

The recommended measuring mode for altitude over water is long range. This means the rangefinder spends more time searching for a return signal than in quick response mode.



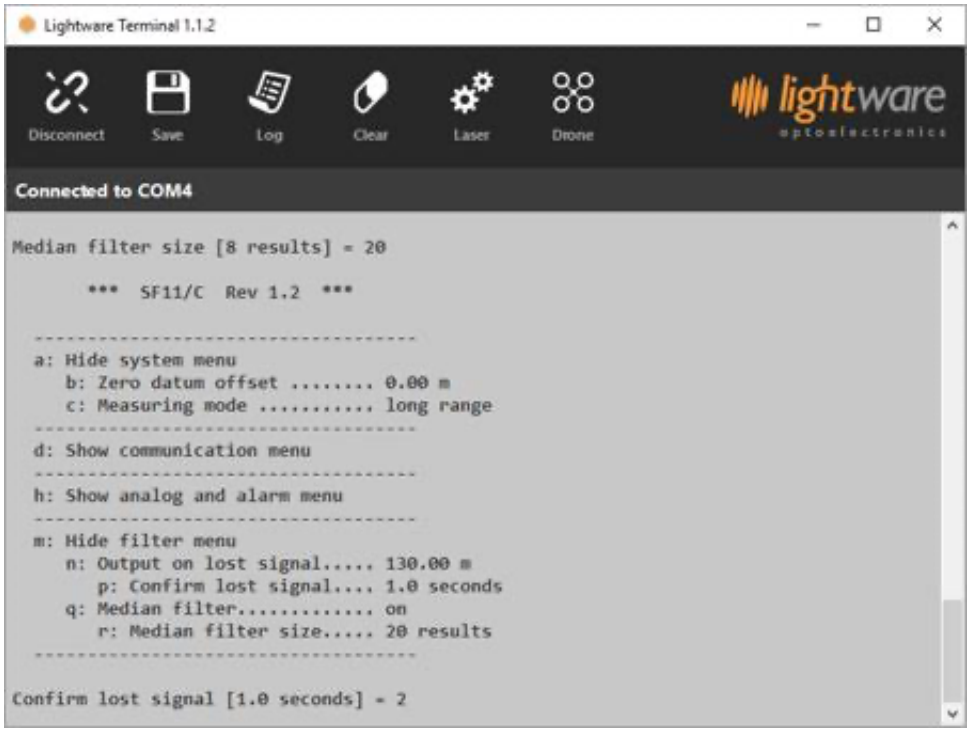
Step 4: Press <**m**> to enter the filter menu.

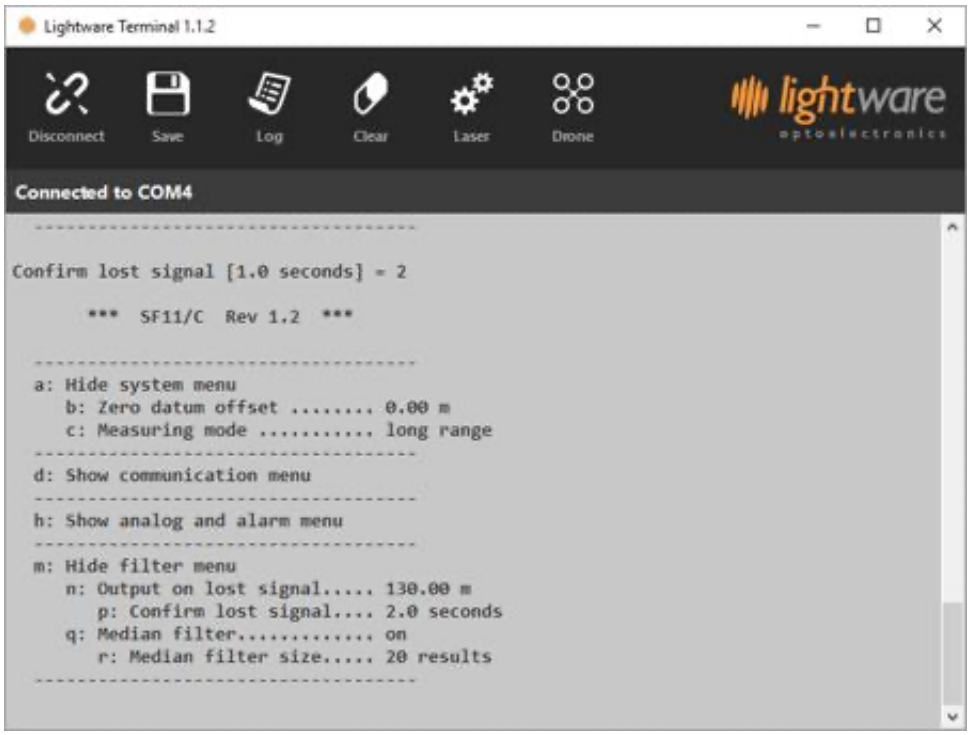
Step 5: p indicates the amount of seconds the rangefinder will wait before returning a lost signal output

1 second = 20 readings and is sufficient for altitudes below 50 meters

For altitudes higher than 50 meters we recommend using 2 seconds as the return signal is lost more often over the longer range.

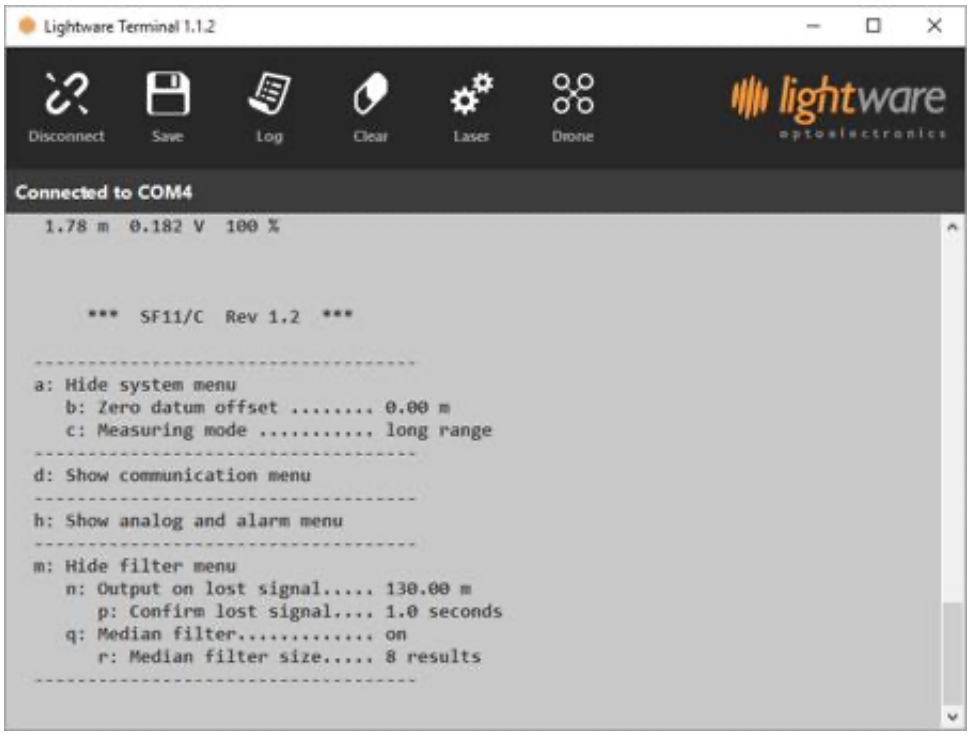
Press <**p**> and enter <**2**> and press enter again for the new setting to be accepted.



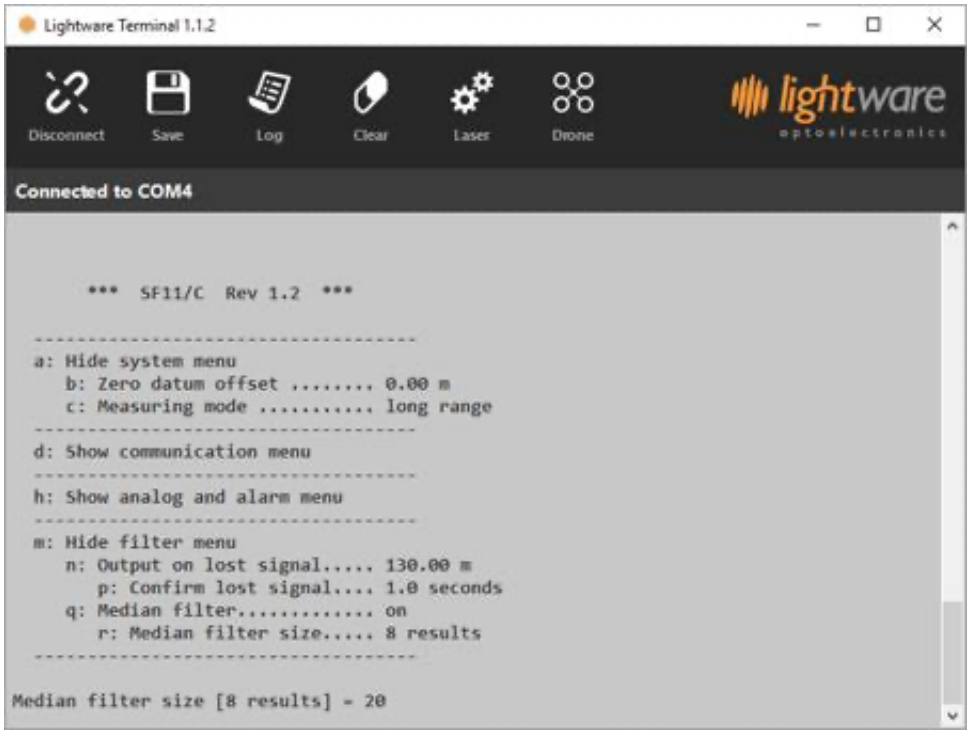


Step 5: press <**q**> to switch on the median filter.

This median filter returns the most frequent result in a number of readings and is recommended for use over water due to the sunshine reflecting from the water surface as well as the lost signal conditions.

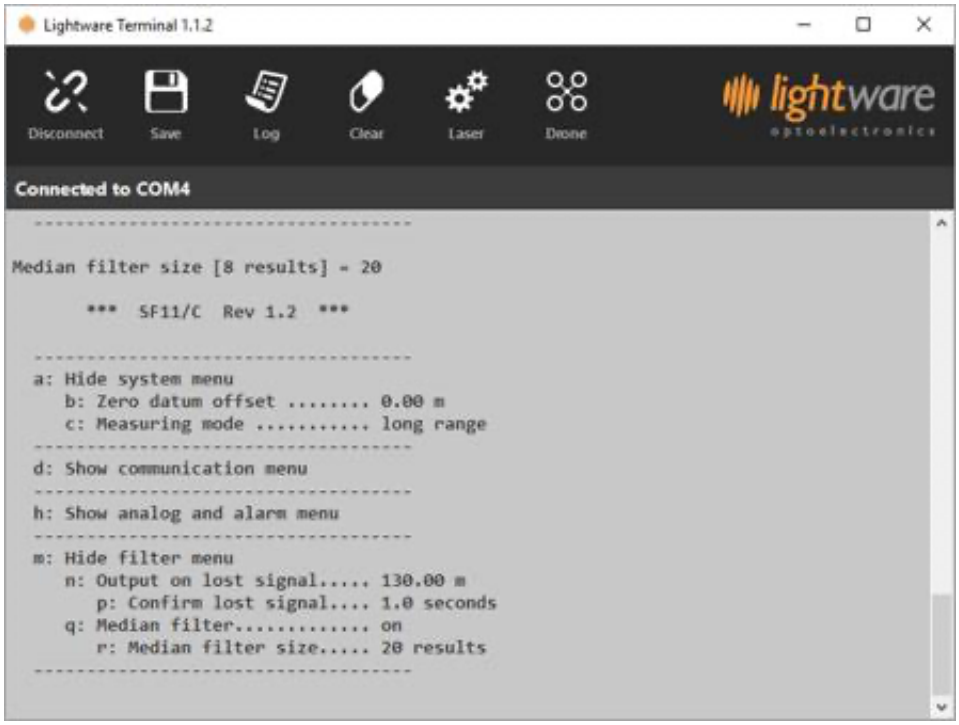


Step 6: Press <**r**> to set the filter size, or number of readings the rangefinder will use to determine the median output. Enter 20 and press <**enter**>.



The median filter will now use 20 readings and output the most frequent reading, which should discard false radings and temporary loss of signal.

The maximum median filter size is 32 readings.



Installation

- What are the IP ratings of LightWare laser rangefinders?
- What are the mounting guidelines for SF11 and SF30 rangefinders?
- Component reliability
- What are the mounting guidelines for LW20 rangefinders?
- How do LightWare products measure distance?
- What wavelength do LightWare products use?
- SF20 and LW20 electromagnetic compatibility

Performance

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