

SF02, SF10, SF11, SF30 Additional Setup Instructions

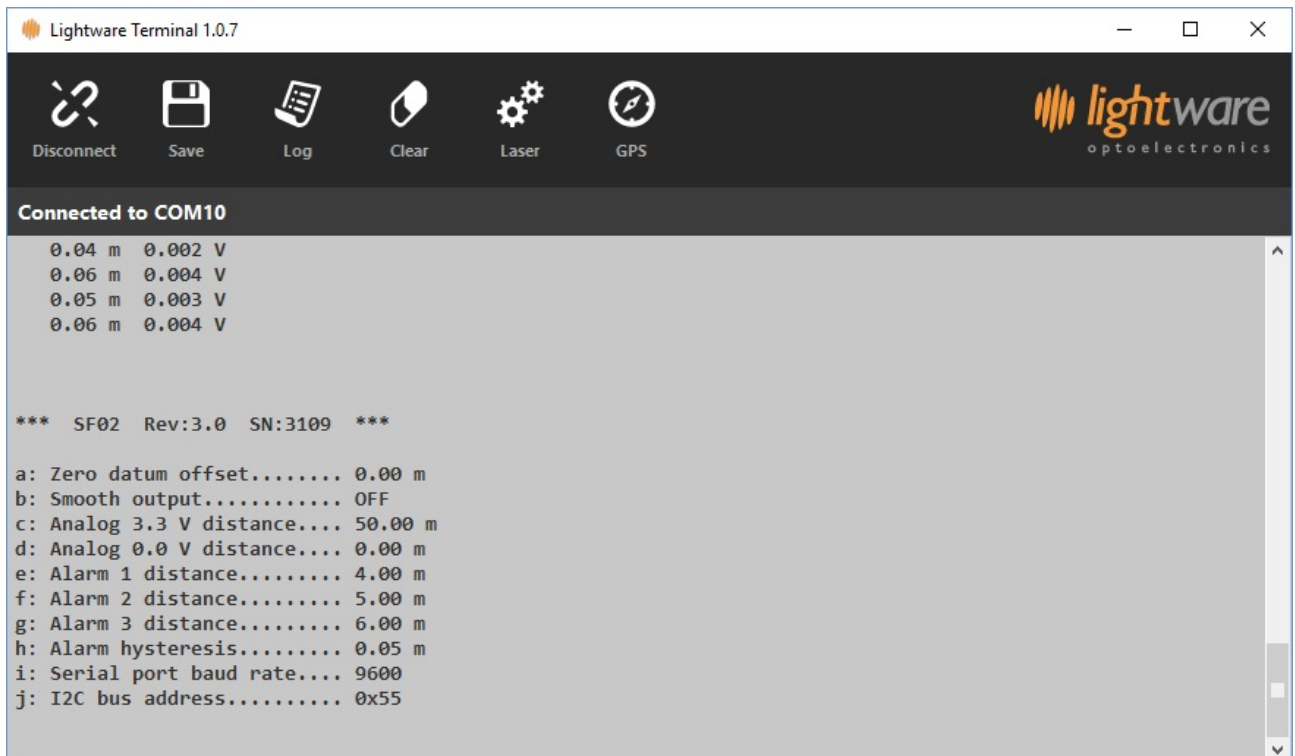
1. Connecting Your Laser Rangefinder

- Download and install the latest version of **LightWare Terminal**
 - <http://www.lightware.co.za/>
- Plug your USB A side of cable to your computer, and Micro B cable side to your Laser Rangefinder USB port
- Launch the **LightWare Terminal**
- Click the **connect** button
 - Connected notification will appear on the terminal
- Hit the spacebar key on your keyboard to access your Laser Rangefinder setting menu.

2. Navigating the LightWare Terminal

Now that you are connected to your Laser Rangefinder and have access to the settings menu, follow these instructions to set the device.

- a) Setting up your SF02
 - The SF02 #28043 example code provided on the Parallax website requires the Serial Port Baud Rate to be set to 9600. You can achieve that by pressing the “T” key on your keyboard until the desired baud rate is achieved, as shown below.



The screenshot shows the LightWare Terminal 1.0.7 interface. At the top, there is a toolbar with icons for Disconnect, Save, Log, Clear, Laser, and GPS. Below the toolbar, it indicates "Connected to COM10". The terminal output shows distance and voltage readings: 0.04 m 0.002 V, 0.06 m 0.004 V, 0.05 m 0.003 V, and 0.06 m 0.004 V. Below this, it displays device information: *** SF02 Rev:3.0 SN:3109 ***. The settings menu is displayed with the following options: a: Zero datum offset..... 0.00 m, b: Smooth output..... OFF, c: Analog 3.3 V distance.... 50.00 m, d: Analog 0.0 V distance.... 0.00 m, e: Alarm 1 distance..... 4.00 m, f: Alarm 2 distance..... 5.00 m, g: Alarm 3 distance..... 6.00 m, h: Alarm hysteresis..... 0.05 m, i: Serial port baud rate.... 9600, j: I2C bus address..... 0x55.

b) Setting up your SF10

- The SF10 #28053 example code provided on the Parallax website requires the Serial Port Baud Rate to be set to 9600. You can achieve that by pressing the “C” key on your keyboard until the desired baud rate is achieved, as shown below.



The screenshot shows a terminal window titled "Lightware Terminal 1.0.7" with a toolbar containing icons for Disconnect, Save, Log, Clear, Laser, and GPS. The status bar indicates "Connected to COM128". The terminal output displays the following configuration menu for SF10/B Rev:0.7 SN:0790:

```
*** SF10/B Rev:0.7 SN:0790 ***  
a: Zero datum offset ..... 0.00 m  
b: Smooth output..... OFF  
c: Serial port baud rate... 9600  
d: I2C bus address..... 0x55  
e: Analog distance range... 0.00 m to 51.20 m  
f: Analog voltage range.... 0.00 V to 2.56 V  
g: Analog polarity..... 0.00 m = 0.00 V | 51.20 m = 2.56 V
```

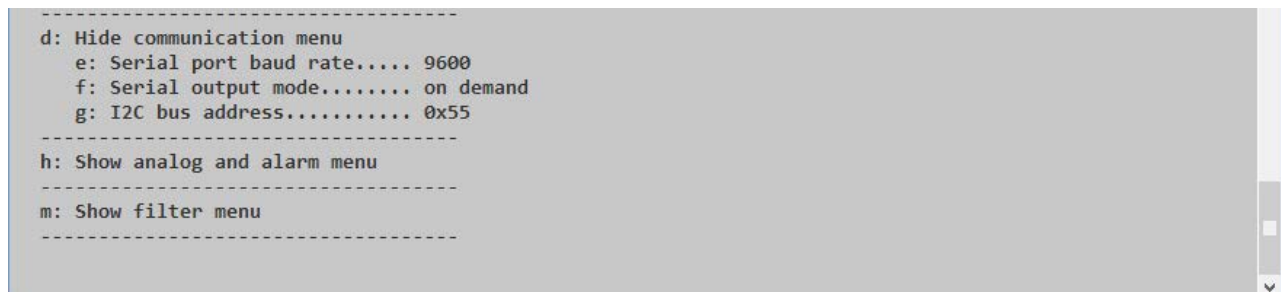
c) Setting up your SF11

- The SF11 #28054 is compatible with the SF10 example code, which requires the Serial Port Baud Rate to be set to 9600. You can achieve that by pressing the “D” key on your keyboard to show the communication menu and then pressing “E” until the desired baud rate is achieved, as shown below.



The screenshot shows a terminal window displaying the configuration menu for SF11/C Rev 1.2:

```
*** SF11/C Rev 1.2 ***  
-----  
a: Hide system menu  
  b: Zero datum offset ..... 0.00 m  
  c: Measuring mode ..... long range  
-----  
d: Show communication menu  
-----  
h: Show analog and alarm menu  
-----  
m: Show filter menu  
-----
```



The screenshot shows the terminal window after selecting option 'd' from the previous menu. The configuration menu for SF11/C Rev 1.2 is displayed with the baud rate set to 9600:

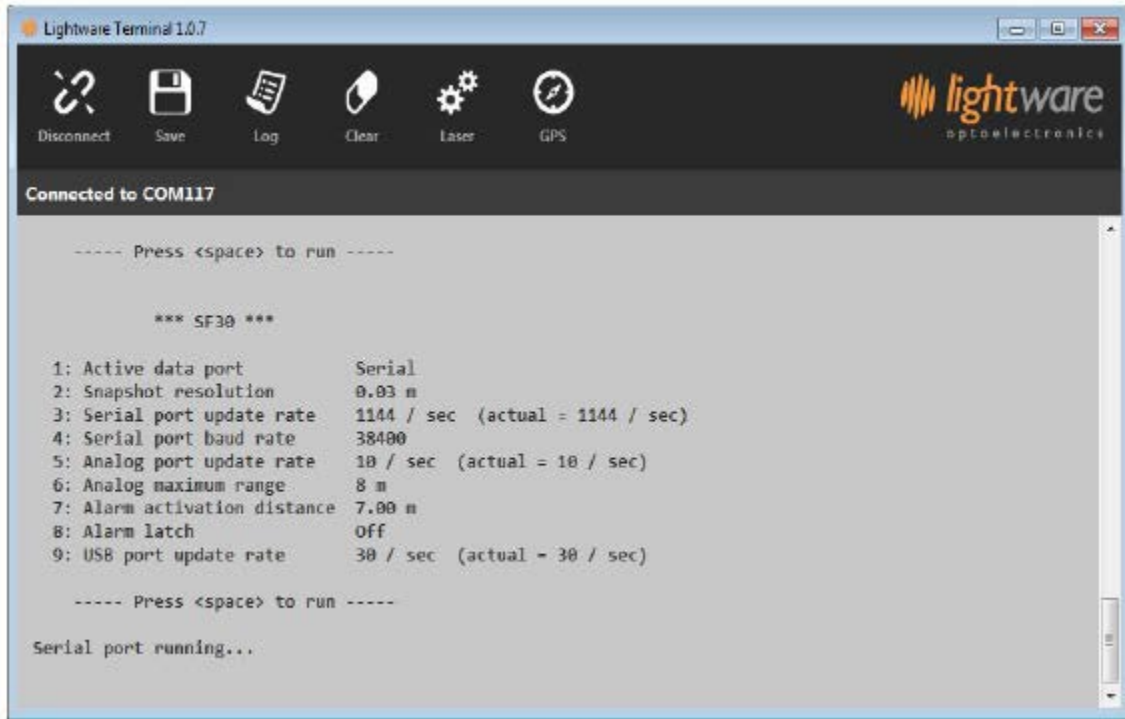
```
-----  
d: Hide communication menu  
  e: Serial port baud rate.... 9600  
  f: Serial output mode..... on demand  
  g: I2C bus address..... 0x55  
-----  
h: Show analog and alarm menu  
-----  
m: Show filter menu  
-----
```

d) Setting up your SF30

- Please refer to the code notes for setting your SF30 #28057 to specific setting values as required by the code. Hit “spacebar” on your keyboard to access the SF30 settings, see the screen capture below.



- Press 1 key on your keyboard to set the active data port
- To access the Serial port, select Serial
 - i. To access the USB port, select USB
- Press 2 to set the snapshot resolution
 - i. Keep pressing 2 until you reach your desired snapshot resolution
- Press 3 to set the update rate
 - i. Type the desired update rate (see notes)
- Press 4 to set the serial port baud rate
 - i. Keep pressing 4 until you reach the desired baud rate (see notes)
- After you are done setting your SF30, Use the spacebar to run the serial port, as shown in the screen capture below



Note: If using 9600 baud rate for your application, make sure you lower your update rate to 286; or a “baud rate too low” error will show up.

Note: The SF30 saves the settings for the future usage. If the last opened port is a USB port, make sure you change the active data port to serial to run the serial port.

Revision History

- V1.1 – Updated to be compatible with SF11, and the newest SF30 Laser Rangefinders