

Leica GPS1200 – Cable Connection to Ohmex SonarLite Echo Sounder


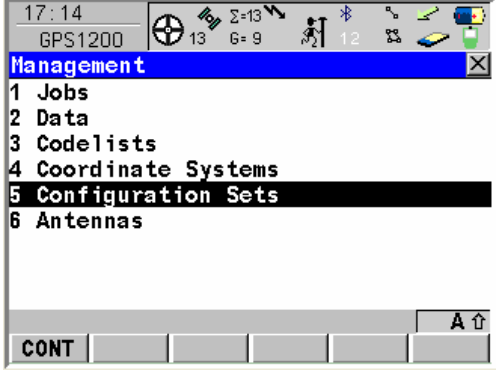
This guide will take you through configuring SmartWorx to accept and record depths from the SonarLite echo sounder via the cable.

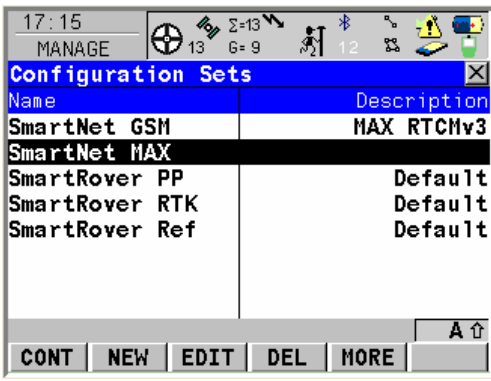
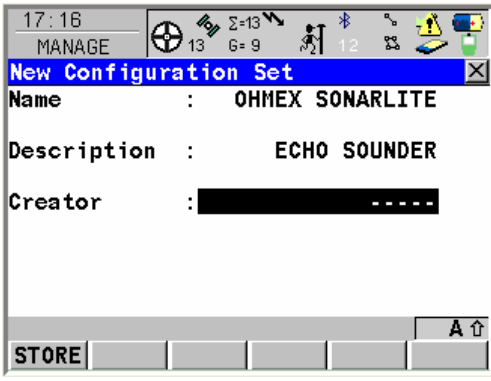
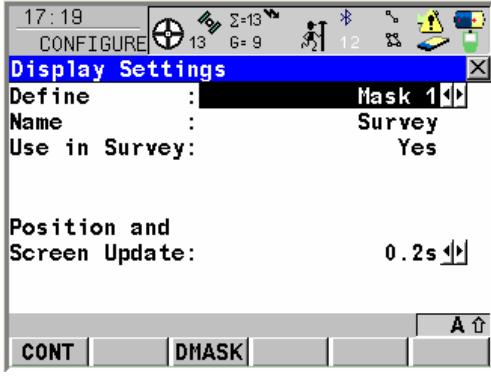
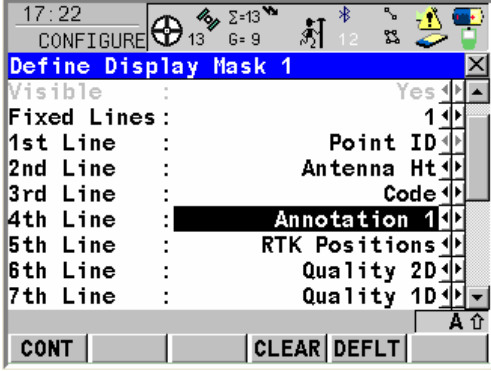
When you measure a GPS position, the most recently received echo sounder depth will be recorded as an Annotation to that point.

Contents:

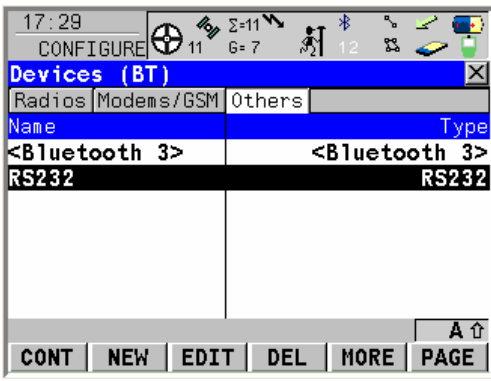
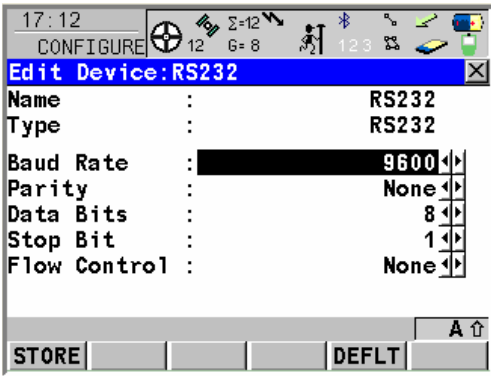
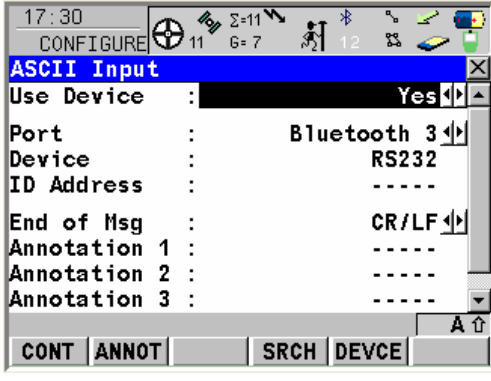
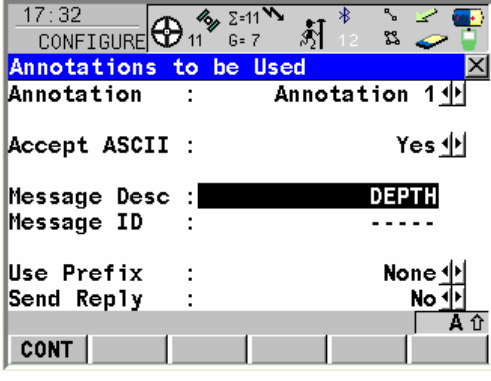
1. Configuring SmartWorx to connect to the Ohmex SonarLite and configuring the Display Mask to show the measured depth
2. Configuring AutoPoints to display and record measured depths
3. Using the correct Format File to export a CSV coordinate file with measured depth in the 5th column

1. Configuring SmartWorx to connect to the Ohmex SonarLite echo sounder and configuring the Display Mask to show the measured depth

Step	Instruction & Screenshots
1.1	<p data-bbox="391 1272 532 1304">3 Manage...</p> 
1.2	<p data-bbox="391 1692 639 1724">5 Configuration Sets</p> 

<p>1.3</p>	<p>Highlight the Configuration Set you usually use then press F2 NEW</p>	
<p>1.4</p>	<p>Give your new Configuration Set a name then press F1 STORE</p>	
<p>1.5</p>	<p>Press F1 CONT 4 or 5 times until you see the screen shown opposite.</p> <p>Press F3 DMASK.</p>	
<p>1.6</p>	<p>Set up the items shown opposite on your display mask.</p> <p>Annotation 1 will be the line where the echo sounder depths are displayed.</p> <p>F1 CONT several times to go right through the Configuration Set without changing anything else and get back to the Main Screen.</p>	

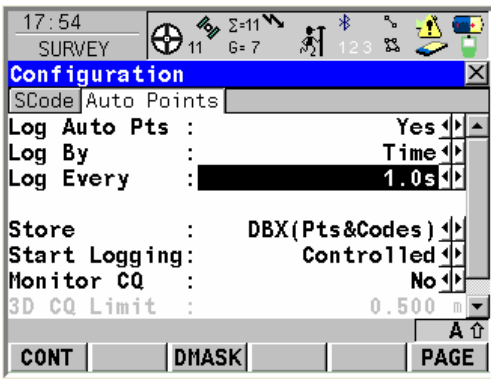
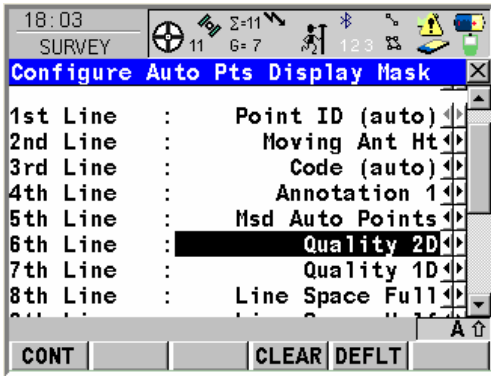
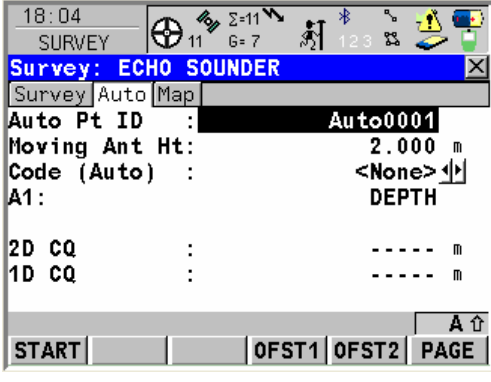
<p>1.7</p>	<p>F5 Config..</p>	<p>The screenshot shows the 'Main Menu' with the following options: 1 Survey, 2 Programs..., 3 Manage..., 4 Convert..., 5 Config..., and 6 Tools... The 'Config...' option is highlighted.</p>																											
<p>1.8</p>	<p>4 Interfaces...</p>	<p>The screenshot shows the 'Configuration: OHMEX SONARLITE' screen with the following options: 1 Survey Settings..., 2 Instrument Settings..., 3 General Settings..., and 4 Interfaces... The 'Interfaces...' option is highlighted.</p>																											
<p>1.9</p>	<p>Highlight ASCII Input then press F3 EDIT</p>	<p>The screenshot shows the 'Interfaces' screen with a table of interface settings:</p> <table border="1"> <thead> <tr> <th>Interface</th> <th>Port</th> <th>Device</th> </tr> </thead> <tbody> <tr> <td>Real-Time</td> <td>Clip</td> <td><Clip-on></td> </tr> <tr> <td>ASCII Input</td> <td>-</td> <td>-</td> </tr> <tr> <td>NMEA Out 1</td> <td>-</td> <td>-</td> </tr> <tr> <td>Export Job</td> <td>-</td> <td>-</td> </tr> <tr> <td>Hidden Pt</td> <td>-</td> <td>-</td> </tr> <tr> <td>SmartAntenna</td> <td>BT 1</td> <td>ATX1230</td> </tr> <tr> <td>Internet</td> <td>BT 2</td> <td>Nokia Phone</td> </tr> <tr> <td>ASCII Remote</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>The 'ASCII Input' row is highlighted. The 'EDIT' button is visible at the bottom.</p>	Interface	Port	Device	Real-Time	Clip	<Clip-on>	ASCII Input	-	-	NMEA Out 1	-	-	Export Job	-	-	Hidden Pt	-	-	SmartAntenna	BT 1	ATX1230	Internet	BT 2	Nokia Phone	ASCII Remote	-	-
Interface	Port	Device																											
Real-Time	Clip	<Clip-on>																											
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SmartAntenna	BT 1	ATX1230																											
Internet	BT 2	Nokia Phone																											
ASCII Remote	-	-																											
<p>1.10</p>	<p>Set up the screen as shown opposite then press F5 DEVICE</p>	<p>The screenshot shows the 'ASCII Input' configuration screen with the following settings:</p> <ul style="list-style-type: none"> Use Device : Yes Port : Bluetooth 3 Device : <Bluetooth 3> ID Address : ----- End of Msg : CR/LF Annotation 1 : ----- Annotation 2 : ----- Annotation 3 : ----- <p>The 'DEVICE' button is highlighted at the bottom.</p>																											

<p>1.11</p>	<p>Highlight RS232 then press F3 EDIT</p>	 <p>The screenshot shows the 'CONFIGURE' screen at 17:29. The 'Devices (BT)' menu is open, with sub-menus 'Radios', 'Modems/GSM', and 'Others'. 'RS232' is highlighted in the list. The bottom menu includes 'CONT', 'NEW', 'EDIT', 'DEL', 'MORE', and 'PAGE'.</p>
<p>1.12</p>	<p>Change the Baud Rate to 9600. Leave all other parameters alone. F1 STORE F1 CONT</p>	 <p>The screenshot shows the 'Edit Device: RS232' screen at 17:12. Parameters are: Name: RS232, Type: RS232, Baud Rate: 9600, Parity: None, Data Bits: 8, Stop Bit: 1, Flow Control: None. The bottom menu includes 'STORE' and 'DEFLT'.</p>
<p>1.13</p>	<p>F2 ANNOT</p>	 <p>The screenshot shows the 'ASCII Input' screen at 17:30. Parameters are: Use Device: Yes, Port: Bluetooth 3, Device: RS232, ID Address: ----, End of Msg: CR/LF, Annotation 1: ----, Annotation 2: ----, Annotation 3: ----. The bottom menu includes 'CONT', 'ANNOT', 'SRCH', and 'DEVCE'.</p>
<p>1.14</p>	<p>Set up the screen as shown opposite and type DEPTH into the Message Desc line. F1 CONT 3 times to get back to the Main Screen.</p>	 <p>The screenshot shows the 'Annotations to be Used' screen at 17:32. Parameters are: Annotation: Annotation 1, Accept ASCII: Yes, Message Desc: DEPTH, Message ID: ----, Use Prefix: None, Send Reply: No. The bottom menu includes 'CONT'.</p>

2. Configuring AutoPoints to display and record measured depth

This section is not necessary if you intend to press the Occupy button every time you want to survey a point. However, if you intend to use the AutoPoints function to survey points automatically e.g. every 1 second then you need to follow these steps.

<p>2.1</p>	<p>Survey</p>	<p>The screenshot shows the 'Main Menu' with a blue header bar. Below the header are six numbered icons: 1 Survey (green folder), 2 Programs... (yellow folder), 3 Manage... (blue folder), 4 Convert... (yellow folder with red arrow), 5 Config... (blue gear), and 6 Tools... (red and green tools). At the bottom, there is a 'CONT' button and a small 'A' with an upward arrow.</p>
<p>2.2</p>	<p>Set up your job and make sure you select your new Config Set. F1 CONT</p>	<p>The screenshot shows the 'Survey Begin' screen with a blue header bar. Below the header, the following configuration details are listed: Job: ECHO SOUNDER, Coord System: OSGB36 (02), Codelist: 1200 V5 Leica, Config Set: OHMEX SONARLITE, and Antenna: ATX1230 GG Pole. At the bottom, there are buttons for 'CONT', 'CONF', and 'CSYS', along with a small 'A' with an upward arrow.</p>
<p>2.3</p>	<p>Press SHIFT then F2 CONF</p>	<p>The screenshot shows the 'Survey: ECHO SOUNDER' screen with a blue header bar. Below the header, the following point data is displayed: Point ID: 3504, Antenna Ht: 2.000 m, Code: <None>, A1: DEPTH, 2D CQ: ----- m, and 1D CQ: ----- m. At the bottom, there are buttons for 'HELP', 'CONF', 'INIT', 'INDIV', and 'QUIT', along with a small 'A' with an upward arrow.</p>

<p>2.4</p>	<p>F6 Page Set up the AutoPoints either by Distance or Time as you prefer.</p> <p>If you choose to log AutoPoints by Time, then do not log points more often than every 1.0s or you'll have far too much data.</p> <p>F3 DMASK</p>	 <p>17:54 SURVEY Σ=11 G=7 123</p> <p>Configuration</p> <p>SCode Auto Points</p> <p>Log Auto Pts : Yes Log By : Time Log Every : 1.0s</p> <p>Store : DBX(Pts&Codes) Start Logging: Controlled Monitor CQ : No 3D CQ Limit : 0.500 m</p> <p>CONT DMASK PAGE</p>
<p>2.5</p>	<p>Set up the AutoPoints display something like the page opposite. It is good to include the Moving antenna ht and the number of Msd auto points you have surveyed.</p> <p>The Annotation 1 will show the measured depth.</p> <p>F1 CONT twice to return to the Survey screen.</p>	 <p>18:03 SURVEY Σ=11 G=7 123</p> <p>Configure Auto Pts Display Mask</p> <p>1st Line : Point ID (auto) 2nd Line : Moving Ant Ht 3rd Line : Code (auto) 4th Line : Annotation 1 5th Line : Msd Auto Points 6th Line : Quality 2D 7th Line : Quality 1D 8th Line : Line Space Full</p> <p>CONT CLEAR DEFLT</p>
<p>2.6</p>	<p>You are now ready to start surveying AutoPoints when you press F1 to START</p>	 <p>18:04 SURVEY Σ=11 G=7 123</p> <p>Survey: ECHO SOUNDER</p> <p>Survey Auto Map</p> <p>Auto Pt ID : Auto0001 Moving Ant Ht: 2.000 m Code (Auto) : <None> A1: DEPTH</p> <p>2D CQ : m 1D CQ : m</p> <p>START OFST1 OFST2 PAGE</p>

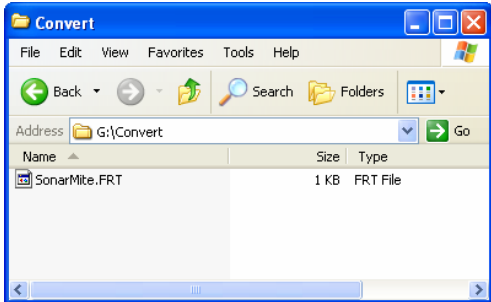


3. Using the correct Format File to export a CSV coordinate file with measured depth in the 5th column

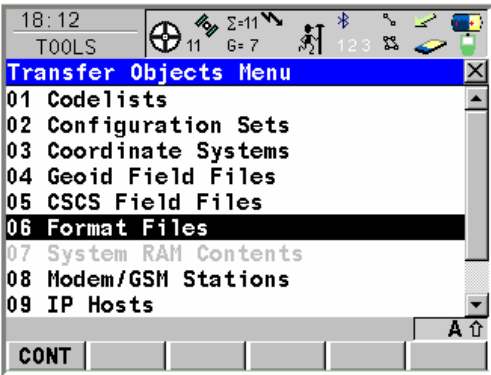
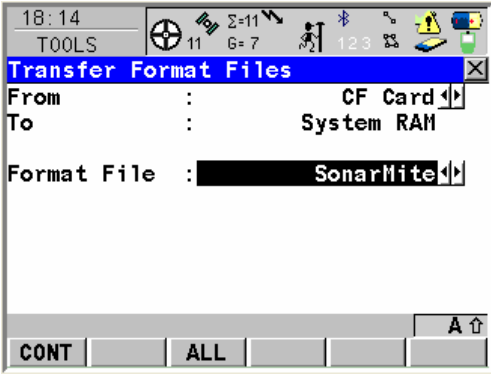
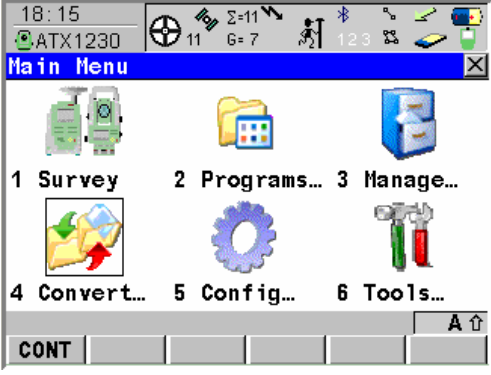
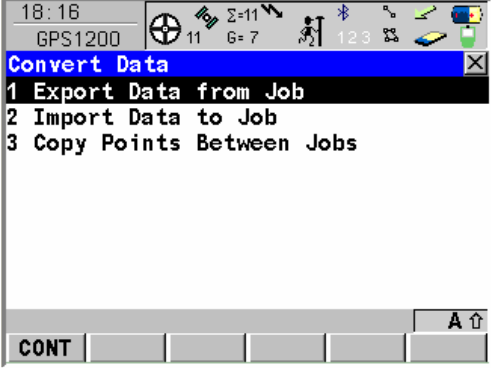
When you have completed your survey you will then probably want to export your data to a CSV file in the format:

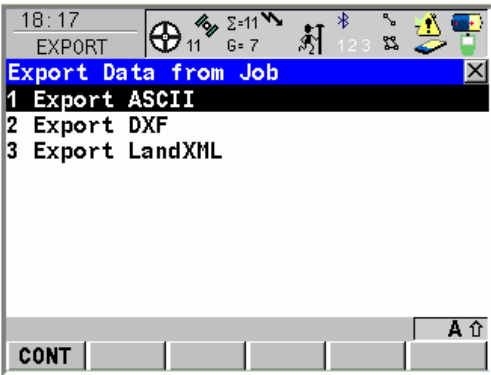
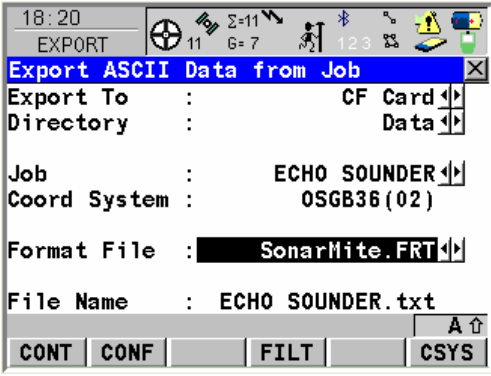
Pt ID, Easting, Northing, Orth Ht, Depth

Ask your Leica contact for the Format File called SonarMite.FRT which will export your survey data in this format.

To load and use this Format File onboard the GPS1200 kit, follow these steps.

<p>3.1</p>	<p>Copy the SonarMite.FRT file into the Convert folder on your CF Card. Put the CF Card back you're your GPS1200 kit.</p>	
<p>3.2</p>	<p>6 Tools</p>	
<p>3.3</p>	<p>Transfer Objects...</p>	

<p>3.4</p>	<p>06 Format Files</p>	
<p>3.5</p>	<p>From: CF Card To: System RAM Format file: SonarMite F1 CONT</p>	
<p>3.6</p>	<p>4 Convert</p>	
<p>3.7</p>	<p>1 Export Data from Job</p>	

<p>3.8</p>	<p>You may not see this screen, but if you do choose Export ASCII</p>	
<p>3.9</p>	<p>Set up the screen as shown opposite making sure you select the SonarMite Format File. F2 CONF</p>	
<p>3.10</p>	<p>Type in CVS into the Default file extension box. F1 CONT twice to export your data to the CF Card in CSV format then press F4 NO to say you don't want to export any more data.</p>	