



TPS400 Quick Guide

April, 2005

TPS400

What equipment and settings do I need to be able to use a  Bluetooth enabled Allegro with SurvCE?

Solution

Please see the following information and steps for the settings required to use a TPS400 instrument Carlson SurvCE through a Bluetooth connection.

Required Equipment

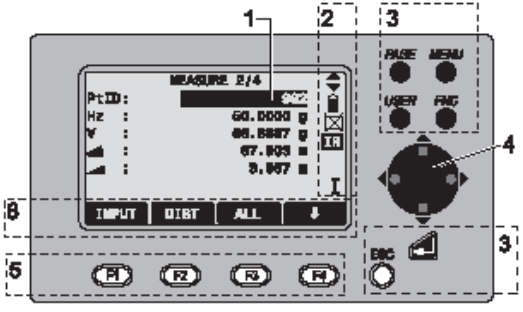
- TPS400 Instrument and required accessories
 - GEV102 (563625) Data transfer cable, connect instrument to 9 pin RS232 serial.
 - Bluetooth module set (8216666) (contains module, charger, drivers and manual).
 - Allegro data collector with Bluetooth enabled running SurvCE.
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Leica
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TPS400

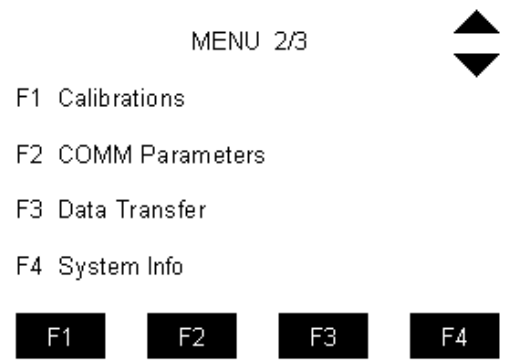
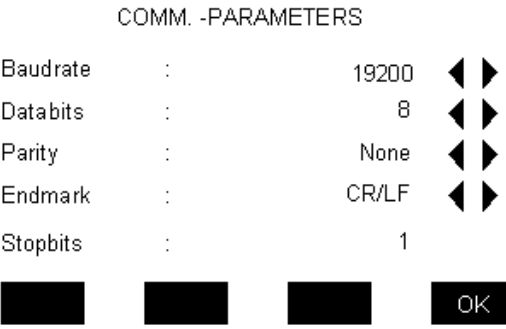
Communication Parameters

Step	Action	Display
1	From the Measure screen: <ul style="list-style-type: none"> Press the MENU button. <p>This takes you to the MENU 1/3 screen.</p>	
2	From the MENU 1/3 screen: <ul style="list-style-type: none"> Select F2 Settings. <p>This takes you to the SETTINGS 1/4 screen.</p>	<p style="text-align: center;">MENU 1/3</p> <p style="text-align: right;">▼</p> <p>F1 Programs</p> <p>F2 Settings</p> <p>F3 EDM Settings</p> <p>F4 File Management</p> <p style="text-align: center;"> F1 F2 F3 F4 </p>
3	In the SETTINGS 1/4 screen: <ul style="list-style-type: none"> Press the PAGE button to advance to page 2/4. Press the PAGE button again to advance to page 3/4. Set Data Output: RS232. Set GSI 8/16: GSI 8. Press the F4 (OK) button. <p>This takes you back to the MENU 1/3 screen.</p>	<p style="text-align: center;">SETTINGS 1/4</p> <p style="text-align: right;">▼</p> <p>Contrast : 60% ▲▼</p> <p>Trigger Key : ALL ▲▼</p> <p>USER Key : CODE ▲▼</p> <p>V-Setting : Zenith ▲▼</p> <p>Tilt Correction : Z-Axis ▲▼</p> <p style="text-align: center;"> OK </p>

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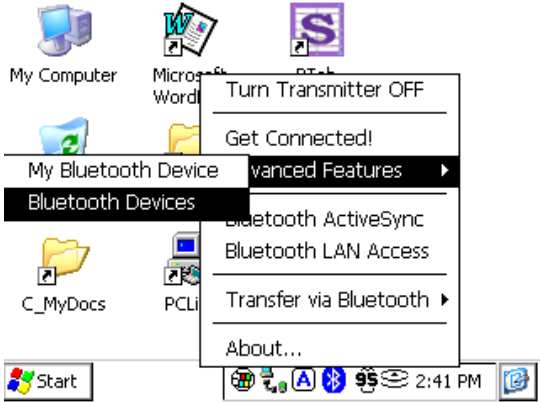
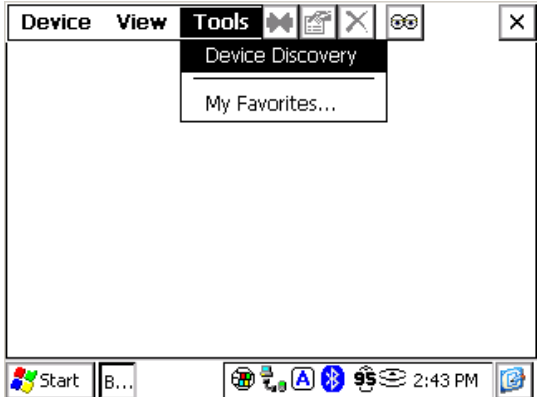
Communication Parameters

Step	Action	Display
4	<p>In the MENU 1/3 screen:</p> <ul style="list-style-type: none"> • Press the PAGE button to advance to 2/3. • Select F2 COMM Parameters. <p>This takes you to the COMM. -PARAMETERS screen.</p>	 <p>MENU 2/3</p> <p>F1 Calibrations</p> <p>F2 COMM Parameters</p> <p>F3 Data Transfer</p> <p>F4 System Info</p> <p>F1 F2 F3 F4</p>
5	<p>In the COMM. -PARAMETERS screen:</p> <ul style="list-style-type: none"> • Set Baudrate: 19200. • Set Databits: 8. • Set Parity: None. • Set Endmark: CR/LF. • Set Stopbits: 1. • Press the F4 (OK) button. <p>This returns you to the MENU 1/3 screen.</p> <ul style="list-style-type: none"> • Press the ESC button. <p>This returns you to the MEASURE 1/4 screen.</p> <p>Note: Leave the instrument in this measure screen while using the SurvCE application on the data collector.</p>	 <p>COMM. -PARAMETERS</p> <p>Baudrate : 19200</p> <p>Databits : 8</p> <p>Parity : None</p> <p>Endmark : CR/LF</p> <p>Stopbits : 1</p> <p>OK</p>

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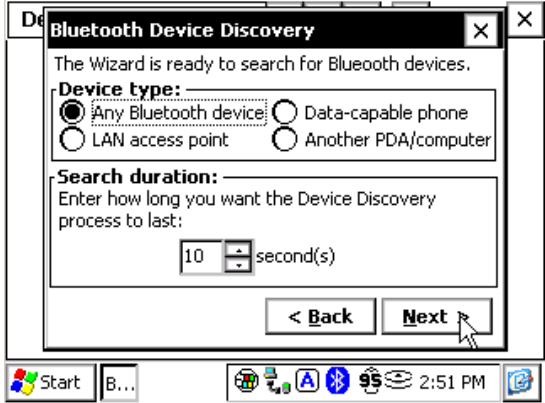

Bluetooth Module Settings

Step	Action	Display
1	<p>Follow the instructions given in the user's manual for the Bluetooth module.</p> <ul style="list-style-type: none"> • Charge the module before use. • Connect the module to the instrument using the GEV102 (563625) cable. 	
2	<p>On the data collector:</p> <ul style="list-style-type: none"> • Tap on the Bluetooth icon. • Select Advanced Features. • Select Bluetooth Devices. <p>This takes you to the Bluetooth device window.</p>	
3	<p>In the Bluetooth device window:</p> <ul style="list-style-type: none"> • Select Tools. • Select Device Discovery. <p>This takes you to the Bluetooth Device Discovery screen.</p>	

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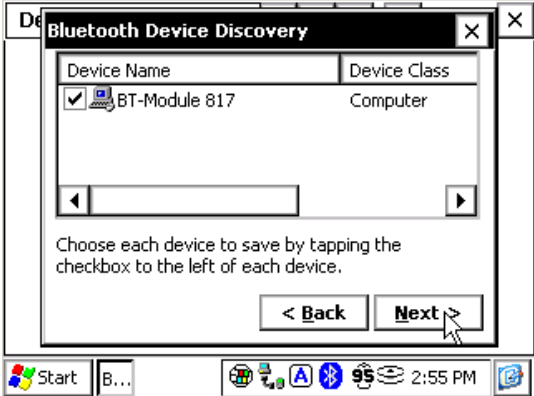

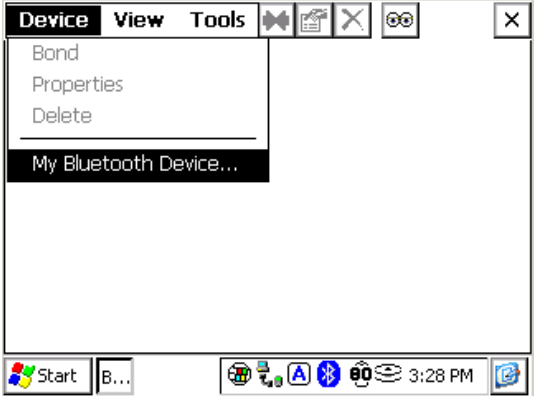
Bluetooth Module Settings

Step	Action	Display
4	<p>In the Bluetooth Device Discovery screen:</p> <ul style="list-style-type: none"> Tap on the Next > button. <p>This advances you to the next step in the wizard.</p>	
5	<p>Continuing in the Bluetooth Device Discovery wizard:</p> <ul style="list-style-type: none"> Select Device type: Any Bluetooth device. Set Search duration: 10 seconds. Tap on the Next > button. <p>This advances you to the next step in the wizard.</p>	
6	<p>Continuing in the Bluetooth Device Discovery wizard:</p> <ul style="list-style-type: none"> The search window is displayed while it detects any Bluetooth devices available. <p>This automatically advances you to the next screen in the wizard.</p>	

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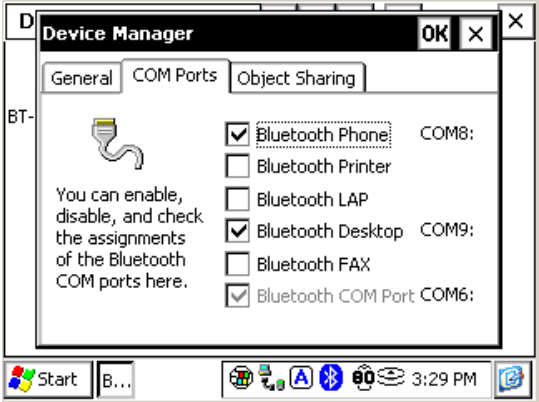
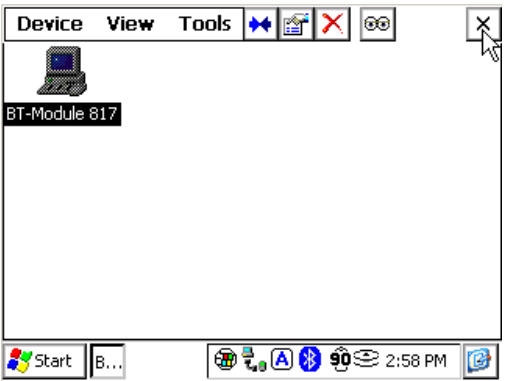
Bluetooth Module Settings

Step	Action	Display
7	<p>Continuing in the Bluetooth Device Discovery wizard:</p> <ul style="list-style-type: none"> Select the proper Bluetooth device that is found by tapping the checkbox to the left of the device. Tap on the Next > button. <p>This advances you to the next step of the wizard.</p>	 <p>The screenshot shows a window titled 'Bluetooth Device Discovery'. It contains a table with two columns: 'Device Name' and 'Device Class'. The first row has a checked checkbox, 'BT-Module 817', and 'Computer'. Below the table is a scroll bar and a message: 'Choose each device to save by tapping the checkbox to the left of each device.' At the bottom are '< Back' and 'Next >' buttons. The taskbar shows the time as 2:55 PM.</p>
8	<p>Continuing in the Bluetooth Device Discovery wizard:</p> <ul style="list-style-type: none"> You have successfully added the new device to your Bluetooth Devices folder. Tap the Finish button. <p>This returns you to the Bluetooth device window.</p>	 <p>The screenshot shows a window titled 'Bluetooth Device Discovery' with a blue header that says 'Bluetooth Device socket Discovery'. Below the header is a message: 'Congratulations! You have successfully added 1 new device to your Bluetooth Devices folder. Tap the Finish button to exit the Wizard.' At the bottom are '< Back' and 'Finish' buttons. The taskbar shows the time as 2:57 PM.</p>
9	<p>In the Bluetooth device window:</p> <ul style="list-style-type: none"> Select Device. Select My Bluetooth Device... <p>This takes you to the Device Manager window.</p>	 <p>The screenshot shows a window titled 'Device Manager' with a menu open over 'My Bluetooth Device...'. The menu items are 'Bond', 'Properties', 'Delete', and 'My Bluetooth Device...'. The taskbar shows the time as 3:28 PM.</p>

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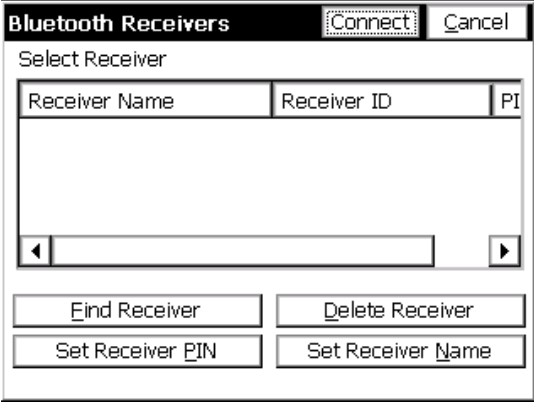
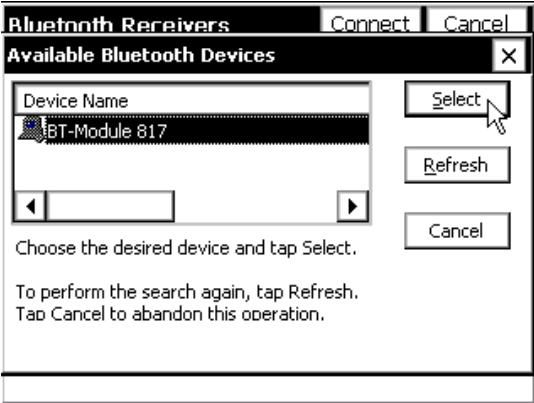
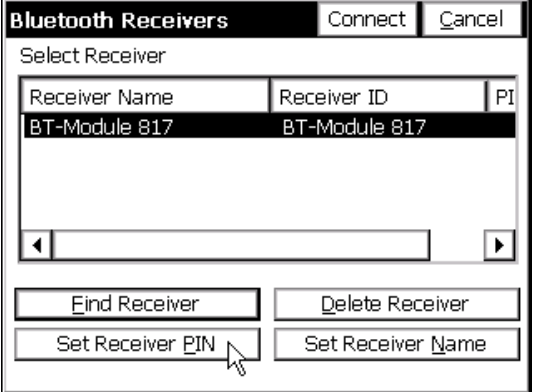
Bluetooth Module Settings

Step	Action	Display
10	<p>In the Device Manager:</p> <ul style="list-style-type: none"> Determine the COM port number assigned for your Bluetooth device. Make sure there is a check in the checkbox next to the necessary port. Tap on the OK button. <p>This takes you back to the Bluetooth device window.</p>	
11	<p>In the Bluetooth device window:</p> <ul style="list-style-type: none"> You have now completed the addition of your Bluetooth device to the selection list. Tap on the X button. 	

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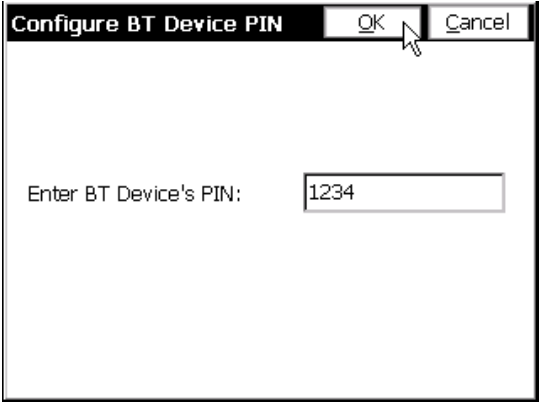
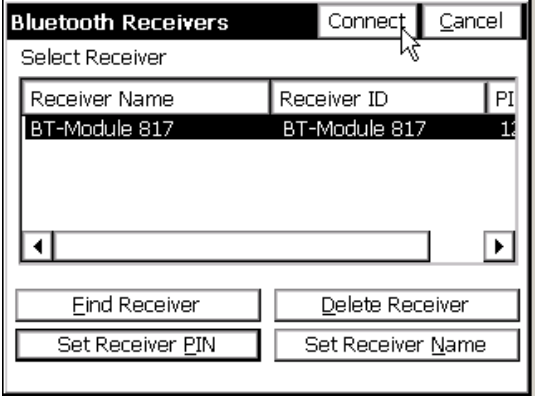
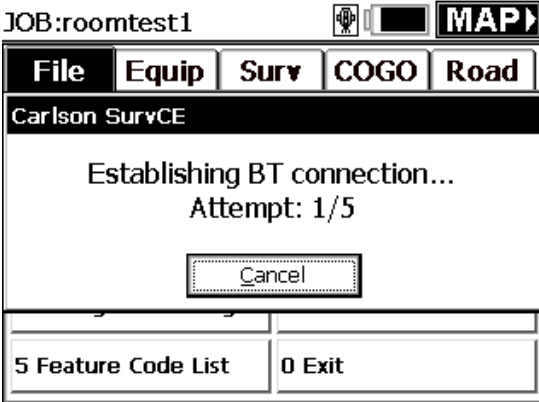
SurvCE Settings

Step	Action	Display
1	<ul style="list-style-type: none"> Start your SurvCE application. Select Current or New Job. <p>The Bluetooth Receivers window will open.</p> <ul style="list-style-type: none"> Tap on the Find Receiver button. <p>This takes you to the Available Bluetooth Devices window.</p>	
2	<p>In the Available Bluetooth Devices window:</p> <ul style="list-style-type: none"> Highlight the appropriate Bluetooth device. Tap on the Select button. <p>This takes you back to the Bluetooth Receivers window.</p>	
3	<p>Continuing in the Bluetooth Receivers window:</p> <ul style="list-style-type: none"> Tap on the Set Receiver PIN. <p>This takes you to the Configure BT Device PIN window.</p>	

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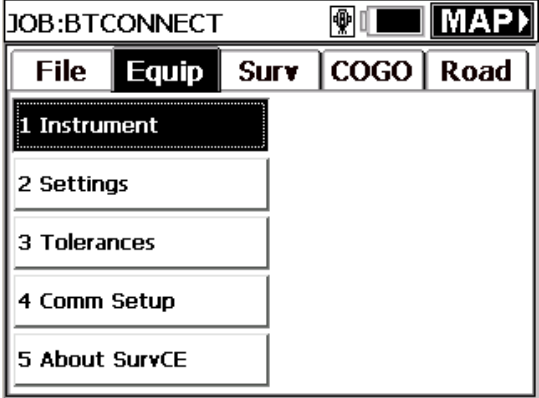
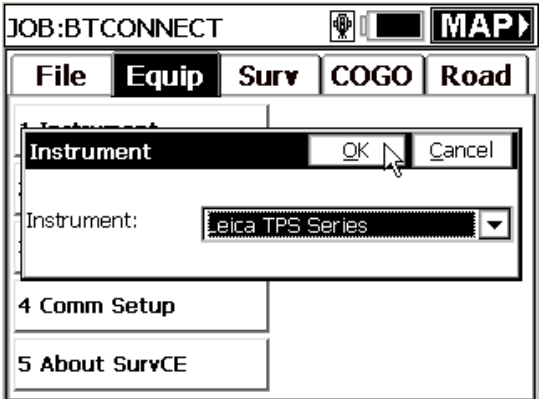
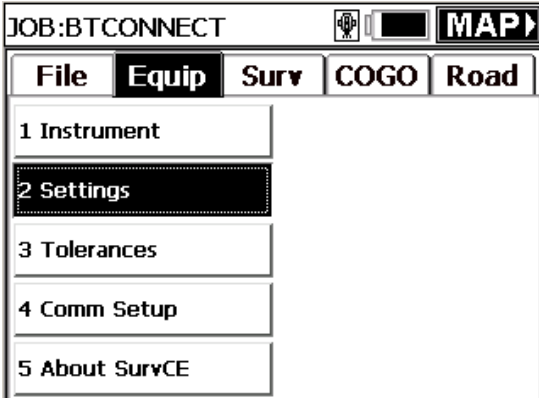
SurvCE Settings

Step	Action	Display
4	<p>In the Configure BT Device PIN window:</p> <ul style="list-style-type: none"> • Enter the BT Device's PIN: 1234. • Tap on the OK button. <p>This takes you back to the Bluetooth Receivers window.</p>	
5	<p>Continuing in the Bluetooth Receivers window:</p> <ul style="list-style-type: none"> • With the appropriate BT device highlighted, tap on the Connect button. 	
6	<p>A window will pop up during the time that the unit is establishing a Bluetooth connection.</p>	

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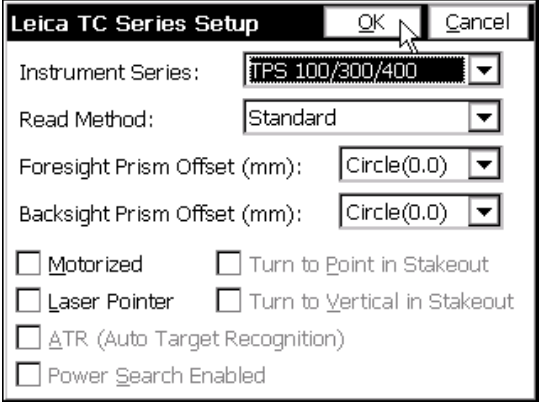
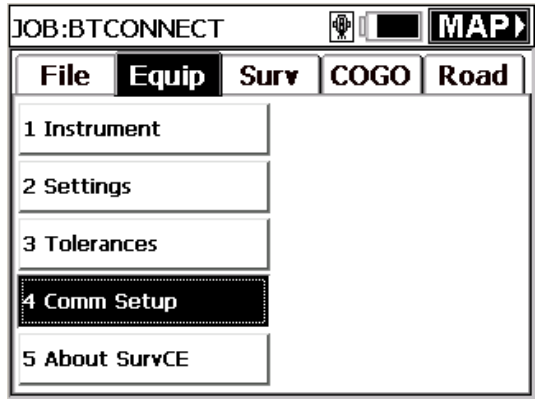
SurvCE Settings

Step	Action	Display
7	<p>In the SurvCE Main Menu:</p> <ul style="list-style-type: none"> Highlight the Equip tab. Select 1 Instrument. <p>This takes you to the Instrument selection window.</p>	
8	<p>In the Instrument selection window:</p> <ul style="list-style-type: none"> Select Leica TPS Series. Tap on the OK button. <p>This takes you back to the Equip tab.</p>	
9	<p>Continuing in the Equip tab:</p> <ul style="list-style-type: none"> Select 2 Settings. <p>This takes you to the Leica TC Series Setup screen.</p>	

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SurvCE Settings

Step	Action	Display
10	<p>In the Leica TC Series Setup screen:</p> <ul style="list-style-type: none"> • Select Instrument Series: TPS 100/300/400. • Select Read Method. • Select Foresight Prism Offset (mm). • Select Backsight Prism Offset (mm). • Tap on the OK button to accept and confirm settings. <p>This takes you back to the Equip tab.</p>	
11	<p>Continuing in the Equip tab:</p> <ul style="list-style-type: none"> • Select 4 Comm Setup. <p>This takes you to the Comm Setup screen.</p>	
12	<p>In the Comm Setup screen:</p> <ul style="list-style-type: none"> • Select the appropriate Port Number: (from Step 10 in the Bluetooth Module Settings). • Check the checkbox for This is a Bluetooth port. • Set Baud Rate: 19200. • Set Parity: None. • Set Char Length: 8. • Set Stop Bits: 1. • Tap on the OK button to confirm and accept these settings. <p>You are now ready to survey using this Bluetooth communication.</p>	