



TPS1000 Robotic Quick Guide

April, 2005

TPS1000 Robotic

What communication parameters do I set to use a TPS1000 Robotic instrument with Carlson SurvCE?

Solution

Please see the following steps for the settings required to use a TPS1000 robotic instrument with Carlson SurvCE. The TPS1000 instruments include TCA1100, TCA1700 and TCA1800.

- when it has to be **right**

Leica
Geosystems

TPS1000 Robotic Communication Parameters

Required Equipment

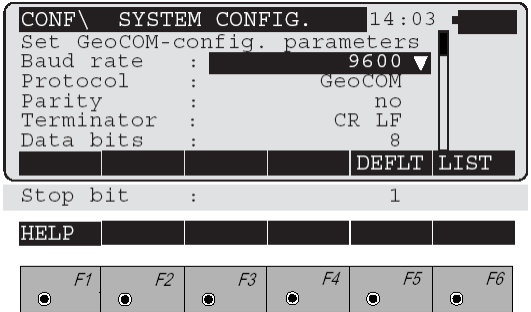
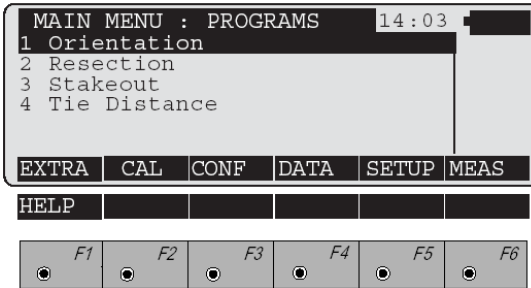
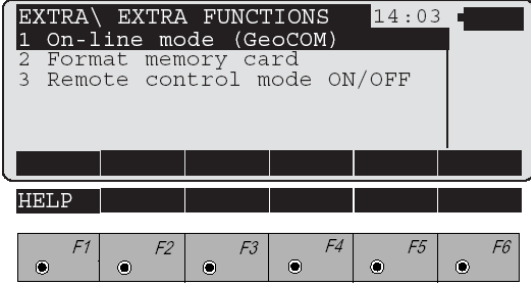
The equipment list includes the following:

- TPS1000 robotic instrument and necessary accessories.
- TCPS27B (663288) or RM2410 (737122) External base radio modem.
- GEV137 (707135) Y-cable.
- GEB171 (727367) or GEB71 (409667) External Battery.
- Data Collector with internal rover radio modem running SurvCE.

Step	Action	Display
1	<p>From the Main Menu:</p> <ul style="list-style-type: none"> • Press the F3 (CONF) button. <p>This takes you to the CONF\ SYSTEM CONFIG. menu.</p>	<p>MAIN MENU : PROGRAMS 14:03</p> <p>1 Orientation 2 Resection 3 Stakeout 4 Tie Distance</p> <p>EXTRA CAL CONF DATA SETUP MEAS</p> <p>HELP</p> <p>F1 F2 F3 F4 F5 F6</p>
2	<p>From the CONF\ SYSTEM CONFIG. Menu:</p> <ul style="list-style-type: none"> • Select 4 GeoCOM – Communications param. <p>This takes you to the CONF\ SYSTEM CONFIG. screen.</p>	<p>CONF\ SYSTEM CONFIG. 14:03</p> <p>1 System date and time 2 Define functionality 3 GSI-Communications param. 4 GeoCOM-Communications param. 5 Instrument identification 6 Autoexec-Application</p> <p>INFO</p> <p>7 System protection 8 User templates 9 EDM-selection</p> <p>HELP</p> <p>F1 F2 F3 F4 F5 F6</p>

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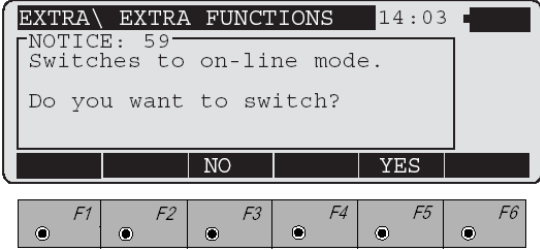
TPS1000 Robotic Communication Parameters

Step	Action	Display
3	<p>In the CONF\ SYSTEM CONFIG. screen:</p> <ul style="list-style-type: none"> • Set Baud rate: 19200. • Set Protocol: GeoCOM. • Set Parity: No. • Set Terminator: CR LF. • Set Data bits: 8. • Set Stop bit: 1. • Press the (CONT) button to set parameters. <p>This takes you back to the Main Menu.</p>	 <p>CONF\ SYSTEM CONFIG. 14:03 Set GeoCOM-config. parameters Baud rate : 9600 Protocol : GeoCOM Parity : no Terminator : CR LF Data bits : 8 DEFLT LIST Stop bit : 1 HELP F1 F2 F3 F4 F5 F6</p>
4	<p>In the Main Menu:</p> <ul style="list-style-type: none"> • Press the F1 (EXTRA) button. <p>This takes you to the EXTRA\ EXTRA FUNCTIONS menu.</p>	 <p>MAIN MENU : PROGRAMS 14:03 1 Orientation 2 Resection 3 Stakeout 4 Tie Distance EXTRA CAL CONF DATA SETUP MEAS HELP F1 F2 F3 F4 F5 F6</p>
5	<p>In the EXTRA\ EXTRA FUNCTIONS menu:</p> <ul style="list-style-type: none"> • Select 1 On-line mode (GeoCOM). <p>This takes you to the next EXTRA\ EXTRA FUNCTIONS screen to enter GeoCOM online mode.</p>	 <p>EXTRA\ EXTRA FUNCTIONS 14:03 1 On-line mode (GeoCOM) 2 Format memory card 3 Remote control mode ON/OFF HELP F1 F2 F3 F4 F5 F6</p>

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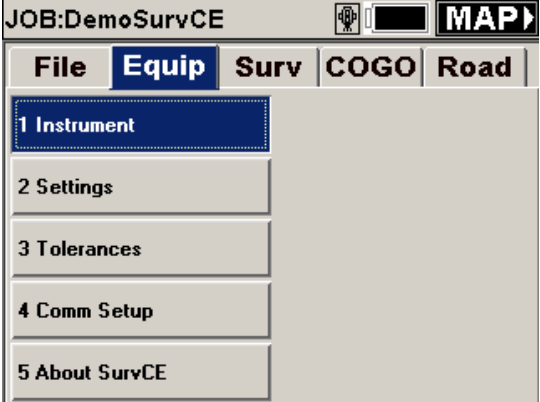
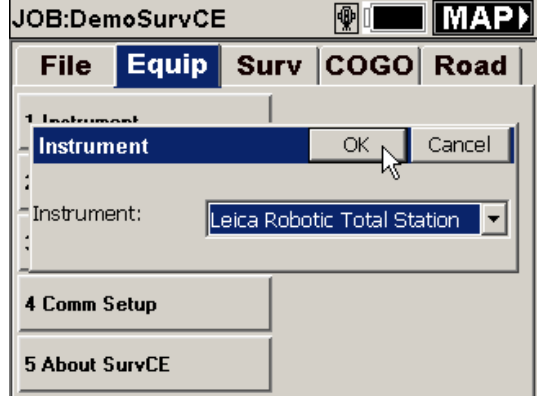
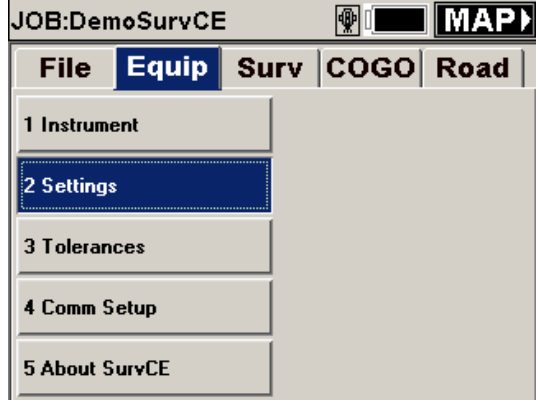
TPS1000 Robotic

Communication Parameters

Step	Action	Display
6	<p>Continuing in the EXTRA\ EXTRA FUNCTIONS screen:</p> <ul style="list-style-type: none"> Press the F5 (YES) button to enter GeoCOM online mode. <p>Note: Leave the instrument in this mode while using the SurvCE application on the data collector.</p> <ul style="list-style-type: none"> To quit the online mode, press the ON/OFF button. 	 <p>The screenshot shows a monochrome display with a black background and white text. At the top, it reads 'EXTRA\ EXTRA FUNCTIONS' followed by the time '14:03'. Below this, a message box contains the text: 'NOTICE: 59 Switches to on-line mode. Do you want to switch?'. At the bottom of the message box, there are two options: 'NO' and 'YES'. Below the display, there are six physical buttons labeled F1, F2, F3, F4, F5, and F6, each with a small circular indicator.</p>

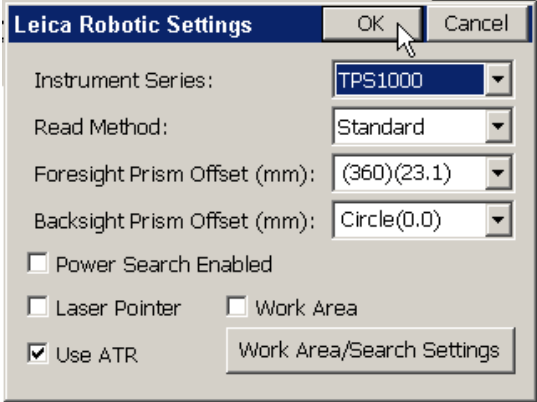
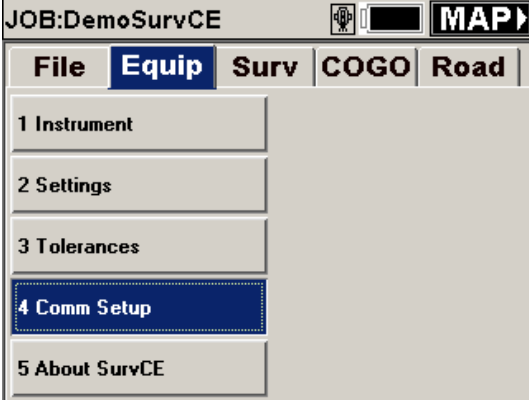
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TPS1000 Robotic SurvCE Settings

Step	Action	Display
1	<p>From the Main Menu:</p> <ul style="list-style-type: none"> • Select Equip tab. • Select 1 Instrument. <p>This takes you to the Instrument choice list.</p>	
2	<p>In the Instrument choice list:</p> <ul style="list-style-type: none"> • Select Leica Robotic Total Station. • Tap on the OK button. <p>This takes you back to the Equip tab.</p>	
3	<p>Continuing in the Equip tab:</p> <ul style="list-style-type: none"> • Select 2 Settings. <p>This takes you to the Leica Robotic Settings screen.</p>	

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TPS1000 Robotic SurvCE Settings

Step	Action	Display
4	<p>In the Leica Robotic Settings screen:</p> <ul style="list-style-type: none"> • Select Instrument Series: TPS 1000. • Select Read Method: <Standard/Fast>. • Select Foresight Prism Offset (mm): <prism type>. • Select Backsight Prism Offset (mm): <prism type>. • Check any other boxes that apply for your instrument type. • Tap the OK button. <p>This returns you to the Equip tab.</p>	
5	<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>	
6	<p>In the Comm Setup screen:</p> <ul style="list-style-type: none"> • Port Number: COM3 (internal radio modem) • Baud Rate: 19200. • Parity: None. • Char Length: 8. • Stop Bits: 1. • Tap the OK button. <p>This takes you back to the Equip tab.</p> <p>Note: You are now connect and ready to survey.</p>	