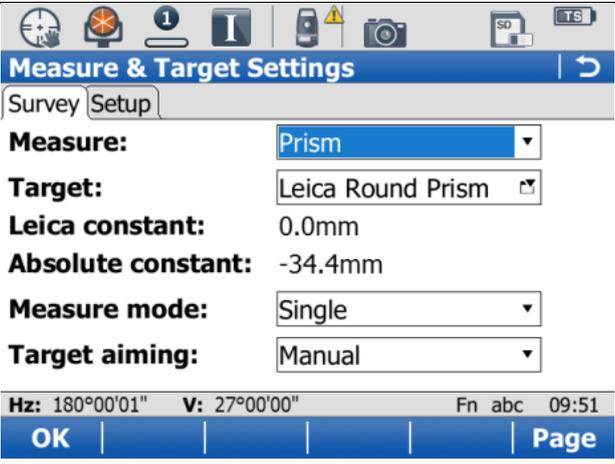
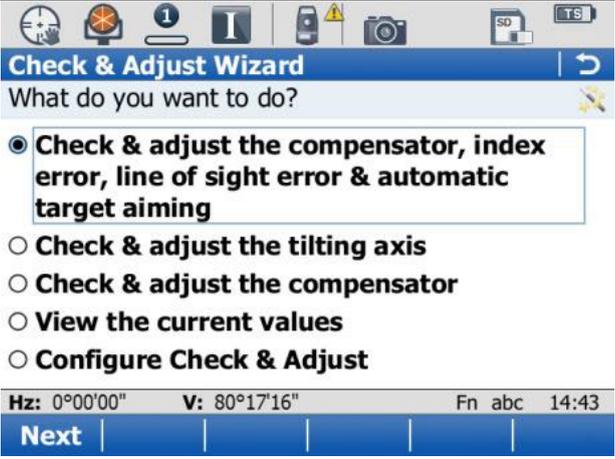
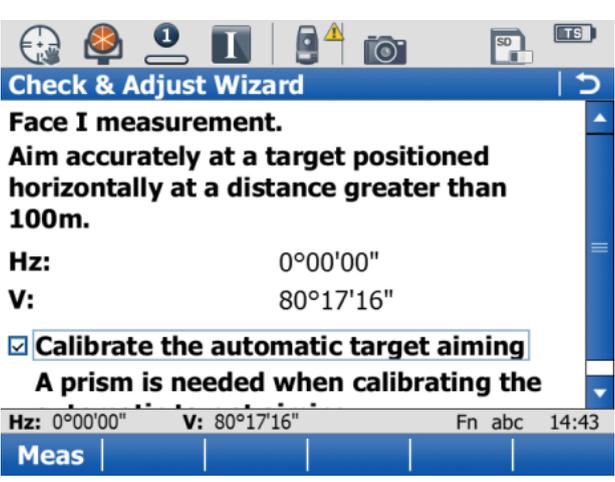
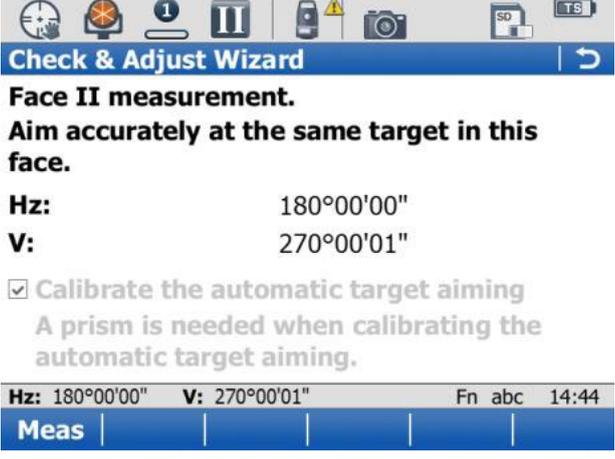
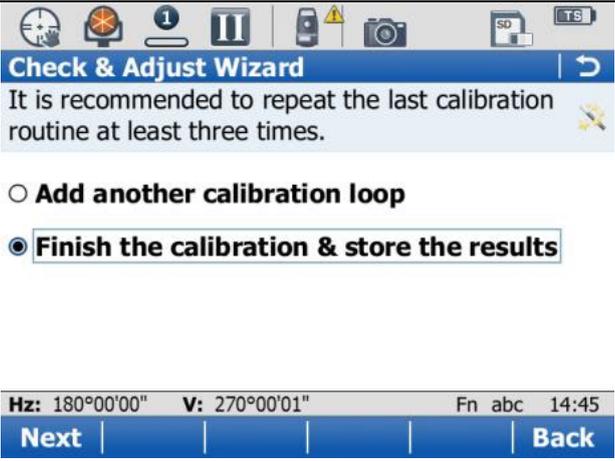
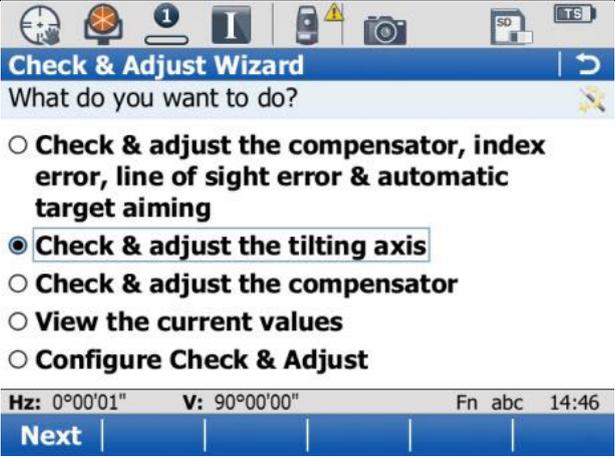


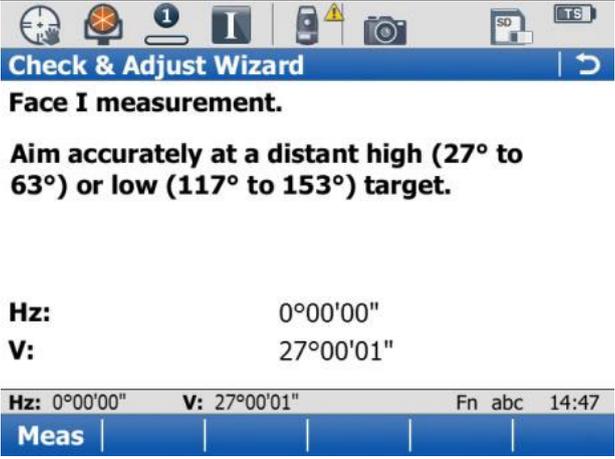
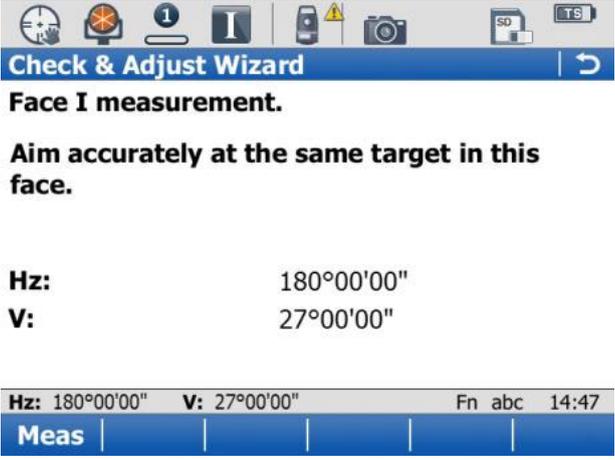
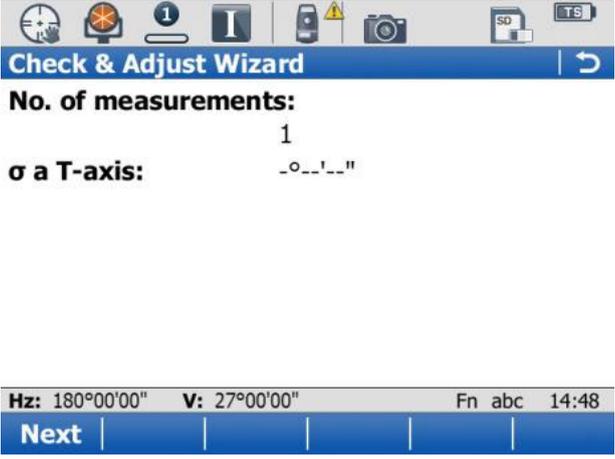
Leica Viva Check and Adjust

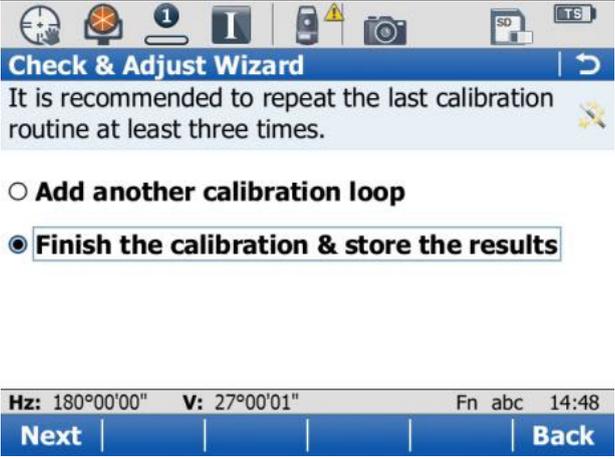
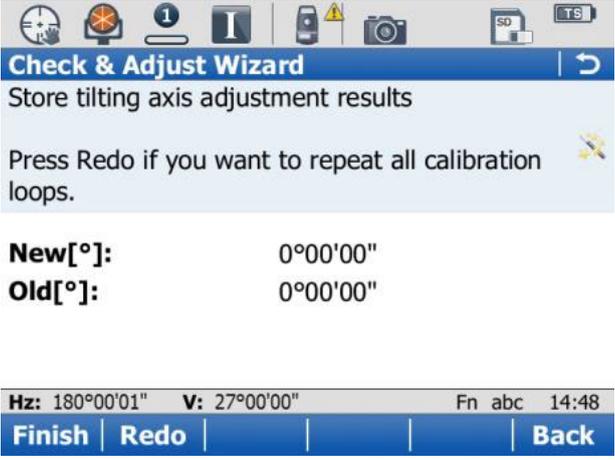
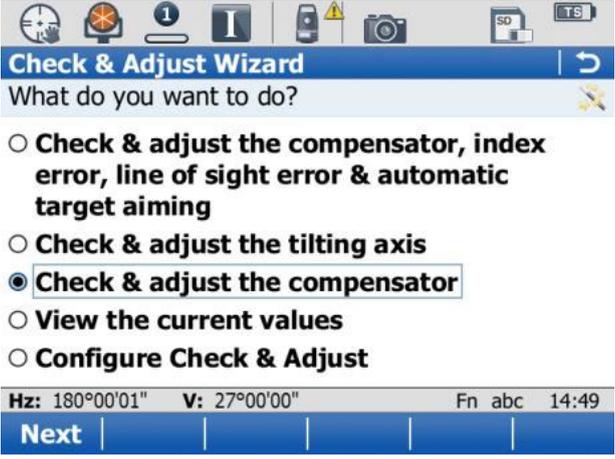
Your Leica Total Station is a precision engineered instrument and having it regularly serviced and calibrated by Leica trained service engineers is the best way to keep it in top condition. However, in-between services it is recommended to run the “Check and Adjust” program to check the horizontal collimation, vertical index and other electronic adjustments.

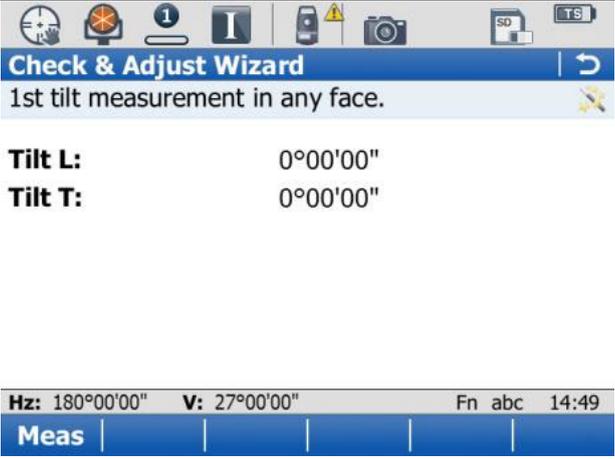
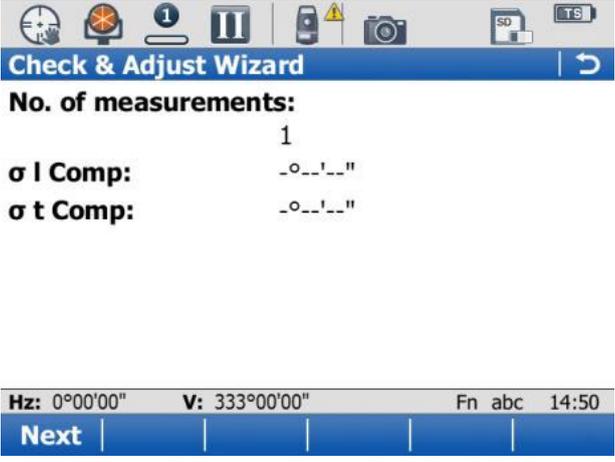
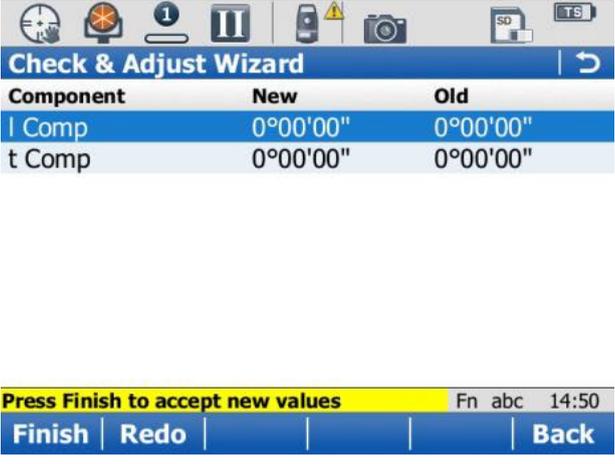
Step	Action	Screen Display
1	For the first step you will need to position a Leica Round prism approximately 100+m away from your total station at roughly the same height as your total station. (you can use a retro sticker but you will not be able to adjust the ATR)	
2	Level the instrument and give it 15 minutes to adjust to the temperature outside. In the meantime go into your Measure and target settings (Instrument\TPS Settings\Meas mode and target) and make sure you’ve selected the Leica Round Prism, the Measure mode as Single and that your target aiming is set to Manual. OK those settings.	 <p>The screenshot shows the 'Measure & Target Settings' menu. At the top, there is a toolbar with icons for home, back, and other functions. Below the title bar, there are tabs for 'Survey' and 'Setup'. The main area contains several settings: 'Measure:' is set to 'Prism', 'Target:' is 'Leica Round Prism', 'Leica constant:' is '0.0mm', 'Absolute constant:' is '-34.4mm', 'Measure mode:' is 'Single', and 'Target aiming:' is 'Manual'. At the bottom, there is a status bar showing 'Hz: 180°00'01"', 'V: 27°00'00"', 'Fn abc', and '09:51'. A blue bar at the very bottom contains 'OK' and 'Page' buttons.</p>
3	Then from the main menu of the instrument go to User then Check and Adjust .	 <p>The screenshot shows the 'User' menu. At the top, there is a toolbar with icons for home, back, and other functions. Below the title bar, there are several menu items: 'Work settings..', 'Working style wizard', 'System settings..', 'Tools & utilities..', 'Check & Adjust' (highlighted with a blue background), and 'About Leica Viva'. At the bottom, there is a status bar showing 'Hz: 0°00'00"', 'V: 80°17'16"', 'Fn abc', and '14:42'. A blue bar at the very bottom contains 'OK' and 'Map' buttons.</p>

4	Select “Check and adjust the compensator, index error...”	 <p>Check & Adjust Wizard</p> <p>What do you want to do?</p> <ul style="list-style-type: none"> <input checked="" type="radio"/> Check & adjust the compensator, index error, line of sight error & automatic target aiming <input type="radio"/> Check & adjust the tilting axis <input type="radio"/> Check & adjust the compensator <input type="radio"/> View the current values <input type="radio"/> Configure Check & Adjust <p>Hz: 0°00'00" V: 80°17'16" Fn abc 14:43</p> <p>Next</p>
5	Tick the box to calibrate the ATR (as long as you're using a prism). Then simply manually aim accurately at the centre of the prism and press Meas .	 <p>Check & Adjust Wizard</p> <p>Face I measurement.</p> <p>Aim accurately at a target positioned horizontally at a distance greater than 100m.</p> <p>Hz: 0°00'00" V: 80°17'16"</p> <p><input checked="" type="checkbox"/> Calibrate the automatic target aiming</p> <p>A prism is needed when calibrating the</p> <p>Hz: 0°00'00" V: 80°17'16" Fn abc 14:43</p> <p>Meas</p>
6	If the instrument is robotic it will then change to face 2 and you can manually aim at the same target and press Meas again.	 <p>Check & Adjust Wizard</p> <p>Face II measurement.</p> <p>Aim accurately at the same target in this face.</p> <p>Hz: 180°00'00" V: 270°00'01"</p> <p><input checked="" type="checkbox"/> Calibrate the automatic target aiming</p> <p>A prism is needed when calibrating the automatic target aiming.</p> <p>Hz: 180°00'00" V: 270°00'01" Fn abc 14:44</p> <p>Meas</p>

7	Repeat the procedure two more times (adding another calibration loop), then finish the calibration and store the results.	 <p>Check & Adjust Wizard</p> <p>It is recommended to repeat the last calibration routine at least three times.</p> <ul style="list-style-type: none"> <input type="radio"/> Add another calibration loop <input checked="" type="radio"/> Finish the calibration & store the results <p>Hz: 180°00'00" V: 270°00'01" Fn abc 14:45</p> <p>Next Back</p>																					
8	You will then be presented with the results of the adjustment (hopefully minimal). Then press finish to store the results.	 <p>Check & Adjust Wizard</p> <table border="1"> <thead> <tr> <th>Component</th> <th>New</th> <th>Use</th> </tr> </thead> <tbody> <tr> <td>l Comp</td> <td>0°00'00"</td> <td>Yes</td> </tr> <tr> <td>t Comp</td> <td>0°00'00"</td> <td>Yes</td> </tr> <tr> <td>i V-index</td> <td>0°00'00"</td> <td>Yes</td> </tr> <tr> <td>c Hz-col</td> <td>0°00'00"</td> <td>Yes</td> </tr> <tr> <td>ATR Hz</td> <td>0°02'10"</td> <td>Yes</td> </tr> <tr> <td>ATR V</td> <td>0°02'10"</td> <td>Yes</td> </tr> </tbody> </table> <p>Hz: 180°00'00" V: 270°00'00" Fn abc 14:45</p> <p>Finish Redo Use More Back</p>	Component	New	Use	l Comp	0°00'00"	Yes	t Comp	0°00'00"	Yes	i V-index	0°00'00"	Yes	c Hz-col	0°00'00"	Yes	ATR Hz	0°02'10"	Yes	ATR V	0°02'10"	Yes
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c Hz-col	0°00'00"	Yes																					
ATR Hz	0°02'10"	Yes																					
ATR V	0°02'10"	Yes																					
9	Then we can check the tilting axis. For this one we need to position the prism 270 above or below the horizontal plane of the total station.																						
10	Select " Check and adjust the tilting axis " then press Next .	 <p>Check & Adjust Wizard</p> <p>What do you want to do?</p> <ul style="list-style-type: none"> <input type="radio"/> Check & adjust the compensator, index error, line of sight error & automatic target aiming <input checked="" type="radio"/> Check & adjust the tilting axis <input type="radio"/> Check & adjust the compensator <input type="radio"/> View the current values <input type="radio"/> Configure Check & Adjust <p>Hz: 0°00'01" V: 90°00'00" Fn abc 14:46</p> <p>Next </p>																					

11	Manually aim at the prism/target centre and press Meas .	 <p>Check & Adjust Wizard</p> <p>Face I measurement.</p> <p>Aim accurately at a distant high (27° to 63°) or low (117° to 153°) target.</p> <p>Hz: 0°00'00" V: 27°00'01"</p> <p>Hz: 0°00'00" V: 27°00'01" Fn abc 14:47</p> <p>Meas</p>
12	Repeat in face 2.	 <p>Check & Adjust Wizard</p> <p>Face I measurement.</p> <p>Aim accurately at the same target in this face.</p> <p>Hz: 180°00'00" V: 27°00'00"</p> <p>Hz: 180°00'00" V: 27°00'00" Fn abc 14:47</p> <p>Meas</p>
13	Press Next at the next screen	 <p>Check & Adjust Wizard</p> <p>No. of measurements:</p> <p>1</p> <p>σ a T-axis: -0.0001"</p> <p>Hz: 180°00'00" V: 27°00'00" Fn abc 14:48</p> <p>Next</p>

14	Then repeat the procedure twice more.	 <p>Check & Adjust Wizard</p> <p>It is recommended to repeat the last calibration routine at least three times.</p> <ul style="list-style-type: none"> <input type="radio"/> Add another calibration loop <input checked="" type="radio"/> Finish the calibration & store the results <p>Hz: 180°00'00" V: 27°00'01" Fn abc 14:48</p> <p>Next Back</p>
15	Then Finish the calibration and accept the results if acceptable.	 <p>Check & Adjust Wizard</p> <p>Store tilting axis adjustment results</p> <p>Press Redo if you want to repeat all calibration loops.</p> <p>New[°]: 0°00'00" Old[°]: 0°00'00"</p> <p>Hz: 180°00'01" V: 27°00'00" Fn abc 14:48</p> <p>Finish Redo Back</p>
16	You can also adjust the compensator alone. If you have completed the combined adjust (step 1) you have already adjusted the compensator and do not have to carry out this step.	 <p>Check & Adjust Wizard</p> <p>What do you want to do?</p> <ul style="list-style-type: none"> <input type="radio"/> Check & adjust the compensator, index error, line of sight error & automatic target aiming <input type="radio"/> Check & adjust the tilting axis <input checked="" type="radio"/> Check & adjust the compensator <input type="radio"/> View the current values <input type="radio"/> Configure Check & Adjust <p>Hz: 180°00'01" V: 27°00'00" Fn abc 14:49</p> <p>Next </p>

17	<p>To carry out the adjustment you do not need to aim to a prism, the instrument just needs to be level. Select Check & adjust compensator. Then aim at a specific point and press Meas.</p>	 <p>Check & Adjust Wizard ↻ 1st tilt measurement in any face. ✕</p> <p>Tilt L: 0°00'00" Tilt T: 0°00'00"</p> <p>Hz: 180°00'00" V: 27°00'00" Fn abc 14:49</p> <p>Meas </p>									
18	<p>If you have a robotic instrument it will turn to face 2 and you have completed 1 measurement run.</p>	 <p>Check & Adjust Wizard ↻ No. of measurements: 1</p> <p>σ I Comp: _o_-'_-'_'" σ t Comp: _o_-'_-'_'"</p> <p>Hz: 0°00'00" V: 333°00'00" Fn abc 14:50</p> <p>Next </p>									
19	<p>Repeat the run twice more then select finish to accept the new compensator values.</p>	 <p>Check & Adjust Wizard ↻</p> <table border="1"> <thead> <tr> <th>Component</th> <th>New</th> <th>Old</th> </tr> </thead> <tbody> <tr> <td>I Comp</td> <td>0°00'00"</td> <td>0°00'00"</td> </tr> <tr> <td>t Comp</td> <td>0°00'00"</td> <td>0°00'00"</td> </tr> </tbody> </table> <p>Press Finish to accept new values Fn abc 14:50</p> <p>Finish Redo Back</p>	Component	New	Old	I Comp	0°00'00"	0°00'00"	t Comp	0°00'00"	0°00'00"
Component	New	Old									
I Comp	0°00'00"	0°00'00"									
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