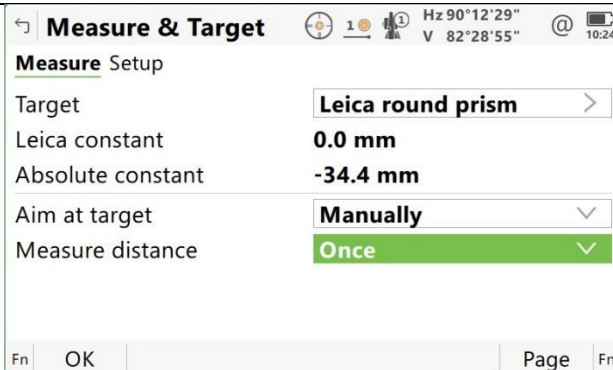
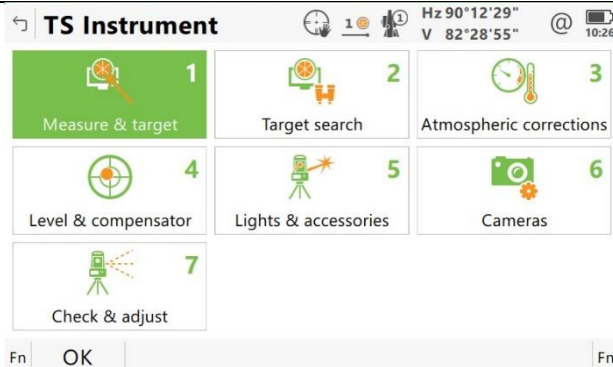
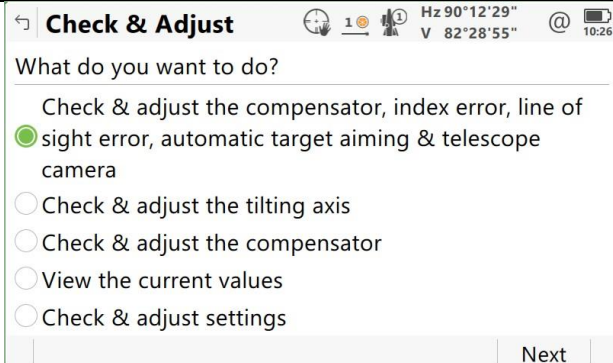


## Leica Captivate: TS16 Check and Adjust

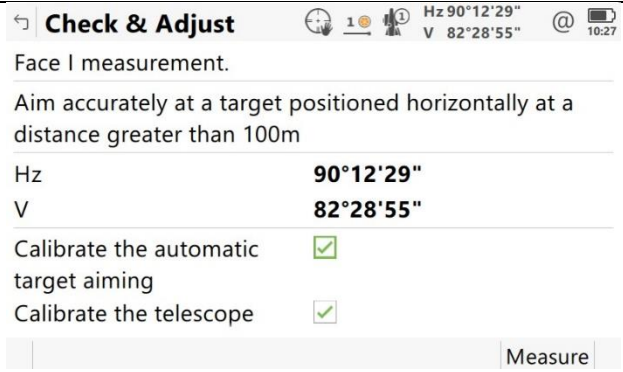
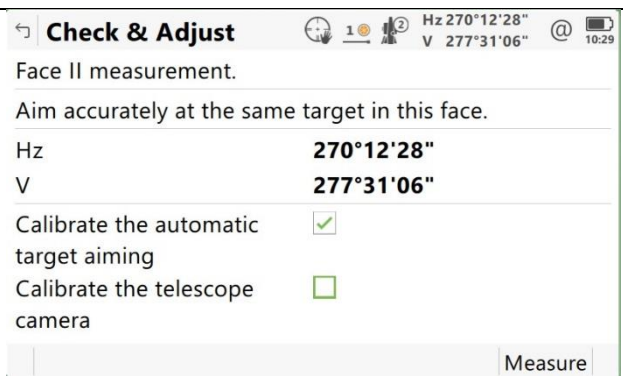
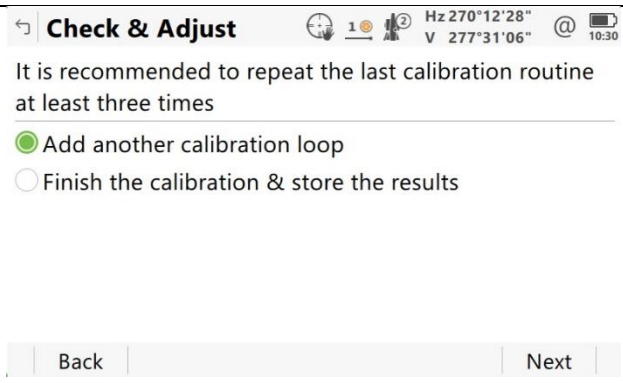

1	For the first step you will need to position a Leica Round prism approximately 100+m away from your total station at roughly the same height as your total station.	
2	Level the instrument and give it 15 minutes to adjust to the temperature outside. In the meantime, go into your Measure and target settings ( <b>Settings\TS Instrument\Measure and Target</b> ) and make sure you've selected the Leica Round Prism, the Measure mode as Single and that your target aiming is set to <b>Manual</b> . <b>OK</b> those	
3	Then from the main menu of the instrument go to <b>Settings\TS Instrument</b> then <b>Check and Adjust</b>	
4	Select <b>"Check and adjust the compensator, index error..."</b>	

### Sunbelt Rentals Survey

3 Orpheus House, Calleva Park, Aldermaston, Reading, RG7 8TA. 0330 678 0181 Support Number: 01293 565565

sales@sunbeltrentals.co.uk www.sunbeltrentals.co.uk

Registered Office: Sunbelt Rentals Ltd. 100 Cheapside, London EC2V 6DT. Registered No. 444569 England & Wales

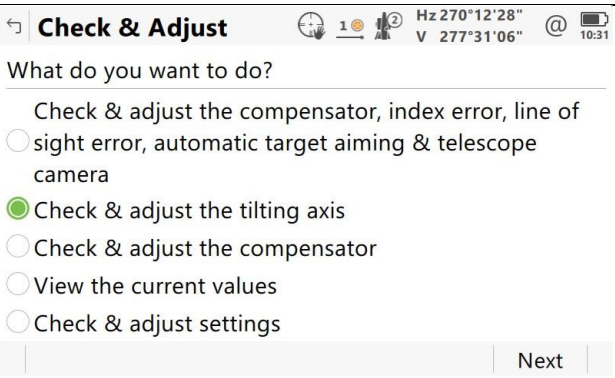
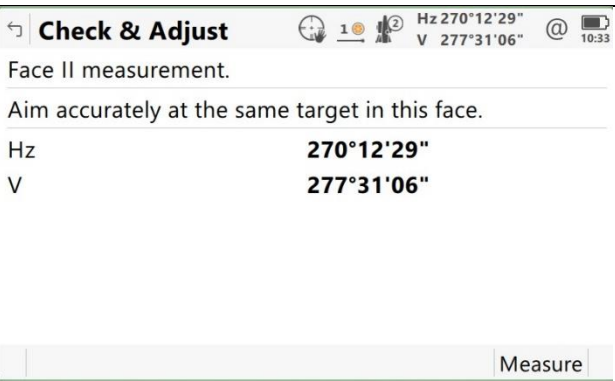
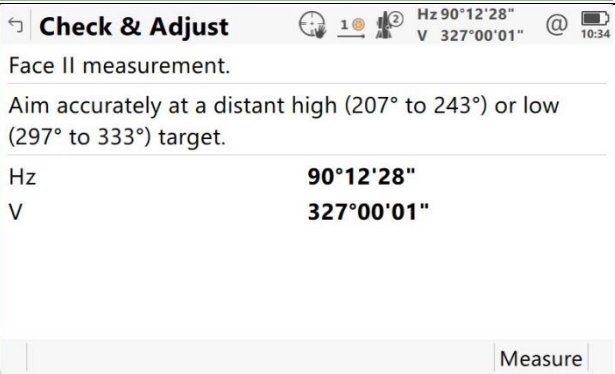
5	<p>Tick the box to calibrate the automatic target aiming (you <b>MUST</b> use a prism, preferably round prism). If you have an Imaging instrument you can also calibrate telescope camera. Then simply manually aim accurately at the centre of the prism and press <b>Meas</b>.</p>	 <p><b>Check &amp; Adjust</b> Hz 90°12'29" V 82°28'55" 10:27</p> <p>Face I measurement.</p> <p>Aim accurately at a target positioned horizontally at a distance greater than 100m</p> <p>Hz <b>90°12'29"</b></p> <p>V <b>82°28'55"</b></p> <p>Calibrate the automatic target aiming <input checked="" type="checkbox"/></p> <p>Calibrate the telescope camera <input checked="" type="checkbox"/></p> <p>Measure</p>
6	<p>If the instrument is robotic it will then change to face 2 and you can manually aim at the same target and press <b>Meas</b> again.</p>	 <p><b>Check &amp; Adjust</b> Hz 270°12'28" V 277°31'06" 10:29</p> <p>Face II measurement.</p> <p>Aim accurately at the same target in this face.</p> <p>Hz <b>270°12'28"</b></p> <p>V <b>277°31'06"</b></p> <p>Calibrate the automatic target aiming <input checked="" type="checkbox"/></p> <p>Calibrate the telescope camera <input type="checkbox"/></p> <p>Measure</p>
7	<p>Repeat the procedure two more times (adding another calibration loop), then finish the calibration and <b>store</b> the results.</p>	 <p><b>Check &amp; Adjust</b> Hz 270°12'28" V 277°31'06" 10:30</p> <p>It is recommended to repeat the last calibration routine at least three times</p> <p><input checked="" type="radio"/> Add another calibration loop</p> <p><input type="radio"/> Finish the calibration &amp; store the results</p> <p>Back Next</p>
8	<p>You will then be presented with the results of the adjustment (hopefully minimal). Then press <b>finish</b> to store the results.</p>	 <p><b>Check &amp; Adjust</b> Hz 270°12'29" V 277°31'06" 10:30</p> <p><input checked="" type="checkbox"/> <b>I Component</b> New 0°00'00" Old 0°00'00"</p> <p><input checked="" type="checkbox"/> <b>t Component</b> New 0°00'00" Old 0°00'00"</p> <p><input checked="" type="checkbox"/> <b>i V-index</b> New 0°00'00" Old 0°00'00"</p> <p><input checked="" type="checkbox"/> <b>c Hz-collimation</b> New 0°00'00" Old 0°00'00"</p> <p><input checked="" type="checkbox"/> <b>ATR Hz</b> New 0°02'10" Old 0°02'10"</p> <p>Fn Back Redo Finish Fn</p>

### Sunbelt Rentals Survey

3 Orpheus House, Calleva Park, Aldermaston, Reading, RG7 8TA. 0330 678 0181 Support Number: 01293 565565

sales@sunbeltsurvey.co.uk www.sunbeltsurvey.co.uk

Registered Office: Sunbelt Rentals Ltd. 100 Cheapside, London EC2V 6DT. Registered No. 444569 England & Wales


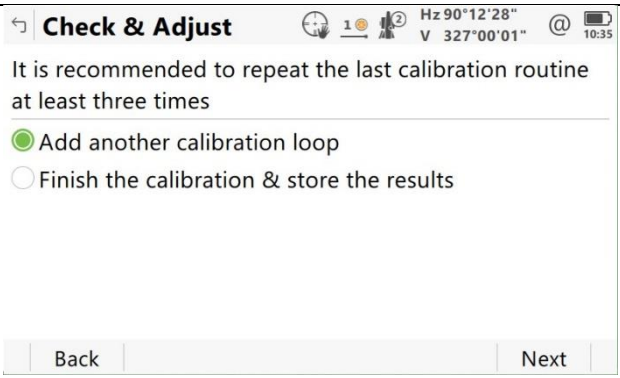
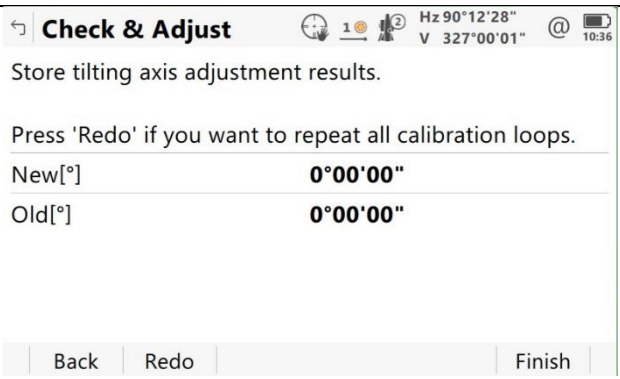
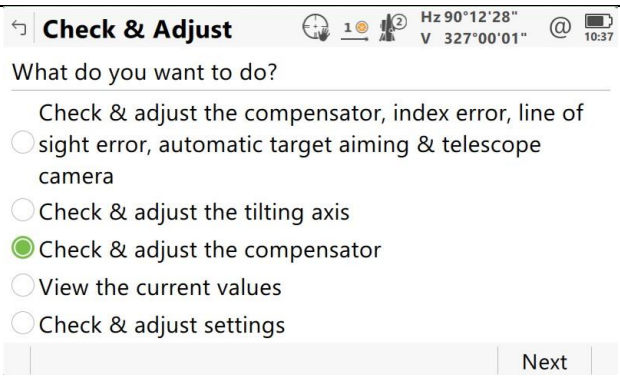
9	Then we can check the tilting axis. For this one we need to position the prism 27° above or below the horizontal plane of the total station.	
10	Select “ <b>Check and adjust the tilting axis</b> ” then press <b>Next</b> .	
11	Manually aim at the prism/target centre and press <b>Meas</b> .	
12	Repeat in face 2.	

### Sunbelt Rentals Survey

3 Orpheus House, Calleva Park, Aldermaston, Reading, RG7 8TA. 0330 678 0181 Support Number: 01293 565565

sales@sunbeltsurvey.co.uk www.sunbeltsurvey.co.uk

Registered Office: Sunbelt Rentals Ltd. 100 Cheapside, London EC2V 6DT. Registered No. 444569 England & Wales

13	Press <b>Next</b> at the next screen	 <p><b>Check &amp; Adjust</b> Hz 90°12'29" V 327°00'00" 10:35</p> <p>Number of measurements <b>1</b></p> <p>a T-axis quality (1 <math>\sigma</math>) -----</p> <p>Next</p>
14	Then repeat the procedure twice more.	 <p><b>Check &amp; Adjust</b> Hz 90°12'28" V 327°00'01" 10:35</p> <p>It is recommended to repeat the last calibration routine at least three times</p> <p><input checked="" type="radio"/> Add another calibration loop</p> <p><input type="radio"/> Finish the calibration &amp; store the results</p> <p>Back Next</p>
15	Then <b>Finish</b> the calibration and accept the results if acceptable	 <p><b>Check &amp; Adjust</b> Hz 90°12'28" V 327°00'01" 10:36</p> <p>Store tilting axis adjustment results.</p> <p>Press 'Redo' if you want to repeat all calibration loops.</p> <p>New[°] <b>0°00'00"</b></p> <p>Old[°] <b>0°00'00"</b></p> <p>Back Redo Finish</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><b>Check &amp; Adjust</b> Hz 90°12'28" V 327°00'01" 10:37</p> <p>What do you want to do?</p> <p><input type="radio"/> Check &amp; adjust the compensator, index error, line of sight error, automatic target aiming &amp; telescope camera</p> <p><input type="radio"/> Check &amp; adjust the tilting axis</p> <p><input checked="" type="radio"/> Check &amp; adjust the compensator</p> <p><input type="radio"/> View the current values</p> <p><input type="radio"/> Check &amp; adjust settings</p> <p>Next</p>

### Sunbelt Rentals Survey

3 Orpheus House, Calleva Park, Aldermaston, Reading, RG7 8TA. 0330 678 0181 Support Number: 01293 565565

sales@sunbeltsurvey.co.uk www.sunbeltsurvey.co.uk

Registered Office: Sunbelt Rentals Ltd. 100 Cheapside, London EC2V 6DT. Registered No. 444569 England & Wales

17	To carry out the adjustment you do not need to aim to a prism, the instrument just needs to be level. Select <b>Check &amp; adjust compensator</b> . Then aim at a specific point and press Meas.	 <p>Check &amp; Adjust</p> <p>Make first tilt measurement in any face</p> <p>Tilt L 0°00'00"</p> <p>Tilt T 0°00'01"</p> <p>Measure</p>
18	If you have a robotic instrument it will turn to face 2 and you have completed 1 measurement run.	 <p>Check &amp; Adjust</p> <p>Number of measurements 1</p> <p>l Component quality (1 <math>\sigma</math>) -----</p> <p>t Component quality (1 <math>\sigma</math>) -----</p> <p>Next</p>
19	Repeat the run twice more then select finish to accept the new compensator values.	 <p>Check &amp; Adjust</p> <p>l Component</p> <p>New 0°00'00" Old 0°00'00"</p> <p>t Component</p> <p>New 0°00'00" Old 0°00'00"</p> <p>Fn Back Redo Finish Fn</p>

For further details on the Check and Adjust procedure please consult the Leica Captivate Technical Reference Manual which covers the subject in detail.

#### Sunbelt Rentals Survey

3 Orpheus House, Calleva Park, Aldermaston, Reading, RG7 8TA. 0330 678 0181 Support Number: 01293 565565

sales@sunbeltsurvey.co.uk www.sunbeltsurvey.co.uk

Registered Office: Sunbelt Rentals Ltd. 100 Cheapside, London EC2V 6DT. Registered No. 444569 England & Wales