

TM50 Setup Procedure

This document outlines how to setup your TM50 for automated monitoring using GeoMoS.

- 1. Ensure that GeoMoS is not trying to control the instrument you are setting up during this process. The best way to ensure this is to stop GeoMoS from running or de-activate GeoMoS in the "Sensor Manager" before you begin.
- 2. Screw the tribrach down on the 5/8th thread that protrudes from the top of the pillar through the hole in the aluminum instrument housing. Ensure it is screwed down tightly as this is what locks the instrument housing to the pillar.
- 3. Once it is fitted tightly, use the foot screws on the tribrach to make it level with the bubble built in to the tribrach.
- 4. Now place the instrument into the tribrach and use the locking clamp to lock it down. Check that you can access the Lemo connecter in the TM50 when you do this and then connect the Leica cable aligning the red dots.
- 5. Turn the TM50 on by pressing and briefly holding down the power button on the keyboard which

looks like this.

6. Now you must fine tune the TM50 using the electronic bubble. This is more precise than the bubble on the tribrach. The arrows on the screen show the direction to turn the foot screws. Once it is perfectly level, select "Next". See below.



7. Next you will be prompted to enter the atmospheric conditions. This is not necessary as GeoMoS uses a dedicated weather station however, you will need to ensure that the atmospheric ppm" is set to zero.

SmartWorx StartU Enter the current tem	p Wizard		+/- 1 ÷ 2 3 ↔ → ABC ⊕ 3 DEF ⊕ ↔ → 4 5 6 □
Temperature: Pressure: Humidity: Atmospheric ppm:	12.0 1013.3 60.0]°C mbar]%	F7 • • • • • • • • • • • • • • • • • • •
□ Don't show this pa	nel during StartUp Fn abc	21:47	
Next	F3 F4 F5	Back	

8. Next you need to point the telescope at the reference prism and set the Azimuth to zero. Please ensure that you are aiming at the correct reference prism and take note of the name/number of that prism as you will need to select it in the GeoMoS software when you set the orientation later. When you have done this select 1 (Go to Work) as shown on the following screen.



9. Now select number 1 (Setup) followed by "Set orientation" from the pull down menu and press F1 (OK) to continue to the next screen where you will set the station point as the "Last used station" from the pull down menu.



10. Enter a point number for the reference prism. This can be any number, for example, number 2. When the TM50 is pointed at the REF prism select F2 (Distance) to confirm that the reference prism can be measured. A distance will be shown in the "Horiz distance" field if successful. Finally, enter the "Direction" value as 0°00'00" and press F1 (Set).

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Set Station Oriental		
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Backsight ID:	2	
Target height:	0.0000 m	7 8 9 PQRS TUV WXZY
Direction:	0°00'00"	0
Horiz distance:	0.0000m	
Height difference:	1.5000m	
Hz: 0°00'00" V: 0°00'		
Set Dist	More Page	

11. Leave the TM50 pointed at the REF and complete the orientation procedure using GeoMoS.

