Trimble 5700/R7 - How to configure for RTK - OLD

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Trimble 5700/R7 - How to configure for RTK (real time kinematic) surveys

RTK surveys provide centimeter level precision coordinates without post-processing. Surveys must be conducted within a 5 km range of a RTK correction broadcasting base station. If you think you may travel more than 5 km away from such a base or lose line of sight communication with it, choose RTK and infill. When using RTK and infill the base broadcasts 1 sec corrections, and logs data at 5 sec intervals (see manuals for details).

1. Insert memory card in slot in the TSC1 controller.
2. Connect the controller to the receiver (Port 1) and set it up on the range-pole, or in the backpack.
3. Turn on the controller, which also powers up the receiver.
4. Select "Files/Job Management" on the controller display main menu.
5. Create "New" or select an existing job. To create a new job, enter a job name and set “File Location” to "PC card". Select "No projection/no datum" as the coordinate system, and set reference elevation to the local average.
6. Choose survey -->TRIMBLE RTK.
7. Choose edit (F5) --> Rover Options.
8. Set up should look like this (modify if needed)

Survey type	RTK
Broadcast format	CMR+
WAAS	off
INS positions	RTK only
Use station index	any
Prompt for station index	no
Elevation Mask	13 degrees
PDOP Mask	10

Antenna height	?
Type	Zephyr

9. Choose Topo Point and configure

You choose step size (usually 1)	
Quality control:	QC1&QC2
Auto store:	yes
Occupation time:	5s
Measurements	5
Choose precisions for auto store (e.g. 0.015 m horizontal 0.02 m vertical)	

10. Choose precisions continuous points if you like.

    = Continuous data is logged as long as precisions are met.

11. Push Enter -->Push ESC --> Push Enter.

12.

    Choose Start Survey -->Choose Measure Points.

13. When you encounter a point of interest:

    Enter a point name or number and antenna height- then push Measure (F1) to enter static mode.

14. **WAIT- DO NOT MOVE!! It is critical to that the antenna does not move while in static mode - from the time you press "Measure" until you receive the "Point stored" confirmation.**

15. Continue to measure points as appropriate throughout survey.

16. Do not end the survey until the survey has initialized, indicated by **"RTK=Fixed"** on the survey status screen.

17. Press "Esc", then "End Survey" to end the survey. If an “Abandon Changes” warning is encountered, choose **NO**.

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