## 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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