



## HOW TO GUIDE: Base Station Fixed Position Input

This document describes the setup and usage of the Fixed Position Input feature, which can be enabled by entering an unlock code. Its intended audience is a Leica approved Value Added Reseller.

### Description

- The mojoRTK base station determines its location each time it is powered up. Providing it is within 50m of its last location it will snap to that position
- Unlocking the fixed position feature allows the known permanent location of the base to be entered and used

### Benefits

Using a fixed position input allows the user to achieve a more repeatable position in the field.

### Limitations

If a fixed position is used and the base station is then moved the position will not automatically be updated. This may result in the tractor position being offset.

### Required Items

- Unlock code to unlock the fixed position feature on the mojoRTK base station. **The unlock code can only be generated by Leica Geosystems if the base station serial number has been provided.** Once this is done, the unlock code can be obtained directly from Leica or by logging onto [www.mojoRTK.com](http://www.mojoRTK.com) and viewing the information for the particular base station which is uniquely identified by its serial number.
- If you wish to use a surveyed position for the base station you will need to have the position information ready to enter into the base station (latitude, longitude and altitude). Otherwise you can let the base station fix its own position which will not give an accurate absolute position but when used will provide a repeatable relative position on the ground (**provided** the base station antenna is always in the exact same spot).



## Configuration

### Installing the fixed position code manually on the mojoRTK base

1. Switch on the mojoRTK base station
2. Use the up/down buttons to select 'Service' and press OK
3. Use the up/down buttons to select 'Add Features' and press OK
4. Enter the 16 digit code by using the up and down buttons to select the value for a digit and pressing OK or Escape to move between digits
5. After the code has been accepted the mojoRTK base station will restart and the Position Mode menu will be available. The instructions below describe how to then configure the Base to use the Fixed position mode

**Note:** Expiry times can be set for all unlock codes. This allows features to be activated over short time periods for trial purposes.

### Setting up a fixed position on the mojoRTK base station

1. Switch on the mojoRTK base station
2. It is recommended that you first select the **Averaging** position type. You will be prompted to select a time period over which to average. A longer time period will result in a more reliable position. For a fixed installation it is recommended that the averaging time be set to 24 hours. If you do not wish to use an averaged position then skip to step 10
3. Use the up/down buttons to select 'Settings' and press OK
4. Use the up/down buttons to select 'Position Mode' and press OK
5. Use the up/down buttons to select 'Averaged' and press OK
6. Use the up/down buttons to select the time period to average over and press Ok
7. Restart the mojoRTK base station
8. Once the base starts averaging it will display a countdown on the main screen until the averaging is complete. The base will not output a position until the averaging has been performed
9. The averaging must be allowed to complete for it to provide a usable position
10. Once the averaging has completed switch the base station to the Fixed position mode. The location will be pre-populated.
11. Use the up/down buttons to select 'Settings' and press OK
12. Use the up/down buttons to select 'Position Mode' and press OK
13. Use the up/down buttons to select 'Fixed' and press OK
14. You will be prompted to enter the latitude, longitude and altitude. If you have performed the steps above this information will already be populated. If desired the values can be changed, use the OK and Escape buttons to select the digit and the arrows to change a digit. Press OK once you have entered the last digit.
15. Repeat step 13 for longitude and altitude
16. Once you have finished entering the latitude, longitude and altitude you will be asked for a Station ID which you should not change unless required by third party systems using alternative base station output formats. These alternative output formats are only available through the use of unlock codes.



17. Each time the base station starts up it will use the fixed position unless you change the position mode or the entered position.