



SPECTRA[®]
GEOSPATIAL

ORIGIN FIELD SOFTWARE TUTORIALS



FOCUS 50 Total Station Set Up



About this Tutorial

In this tutorial, you will learn how to create a conventional survey and connect to a Spectra Geospatial® FOCUS 50 total station.

This tutorial will take about 10-20 minutes to complete.

Using a FOCUS 50 Total Station

The [FOCUS 50 Robotic Total Station](#) is Spectra Geospatial's newest total station. The FOCUS 50 and Origin were designed together to make it an easy workflow. Similar to other total stations, you will need to start a conventional survey and create a survey style for the FOCUS 50. The FOCUS 50 connects to Origin via bluetooth, making a smooth connection process.

What You Will Need

- **Origin Field Software:** Origin Max or Origin Total Station
- **Device:**
 - Computer or data collector
 - FOCUS 50 Total Station





Step 1: Open a Project and Create a Job

Note: If you have a project folder in Trimble Connect, open the project and create a new job.

1. On the **Projects** page, tap **New**.
2. In the **New project** screen, fill in the project details (not all of the details are required). **Name** the project “*Connecting to a Total Station*”
(Optional) Provide a **Description** “*start a conventional survey with a total station*”
3. Tap **Enter** and **Create**
4. In the **New Job: Connecting to a Total Station** screen, use **Create from Template**:

Job name - “*FOCUS 50*”

Template - *Metric Scale Only*

Tap **Coord. Sys.**

Tap **Select from Library**

System - *United States/State Plane 1983*

Zone - *Colorado North 0501*

Project height - *1524m*; **Tip:** If you know the project height in US Feet, type height XX sft, and it will automatically adjust to meters.

Units (Dist.) - *Meters*

Feature Library - *GlobalFeatures*

Leave all of the other properties to the default (or empty) value.

5. Tap **Accept**.
The properties for that job will be carried over.
6. Once you have opened the project, you are brought to the **Map** screen and you can see the data in the map view.





Step 2: Select and Create a Survey Style

1. Tap 
2. Scroll down to **Settings** and tap **Survey styles**.
In the **Survey styles** screen, you will see a list of previously used survey styles and the date it was last modified.
3. At the bottom of the screen, tap **New** to create a new survey style.
The **Style details** screen will appear and there is a location to provide a **Style name** and **Style type**.
4. Change the **Style name** to *Focus50* and the **Style type** to **Conventional**
Tap **Enter** and **Accept**
5. The **FOCUS 50** page will appear, where you can configure settings for the survey style.
6. Tap **Instrument**. This is where you will define the instrument and change the instrument settings.
7. Change the following settings to fit the Focus50 total station:
Manufacturer to **Spectra Geospatial**
Model to **FOCUS 50**.
We will accept the other default settings.
Tap **Accept**.
8. You will be brought back to the **FOCUS 50** screen.
Tap **Esc**.
9. Tap **Connections** where you will set up the connection between your controller radio settings to connect to the conventional instrument.
10. Navigate to the **Bluetooth** tab.





Step 2. Select and Create a New Survey Style

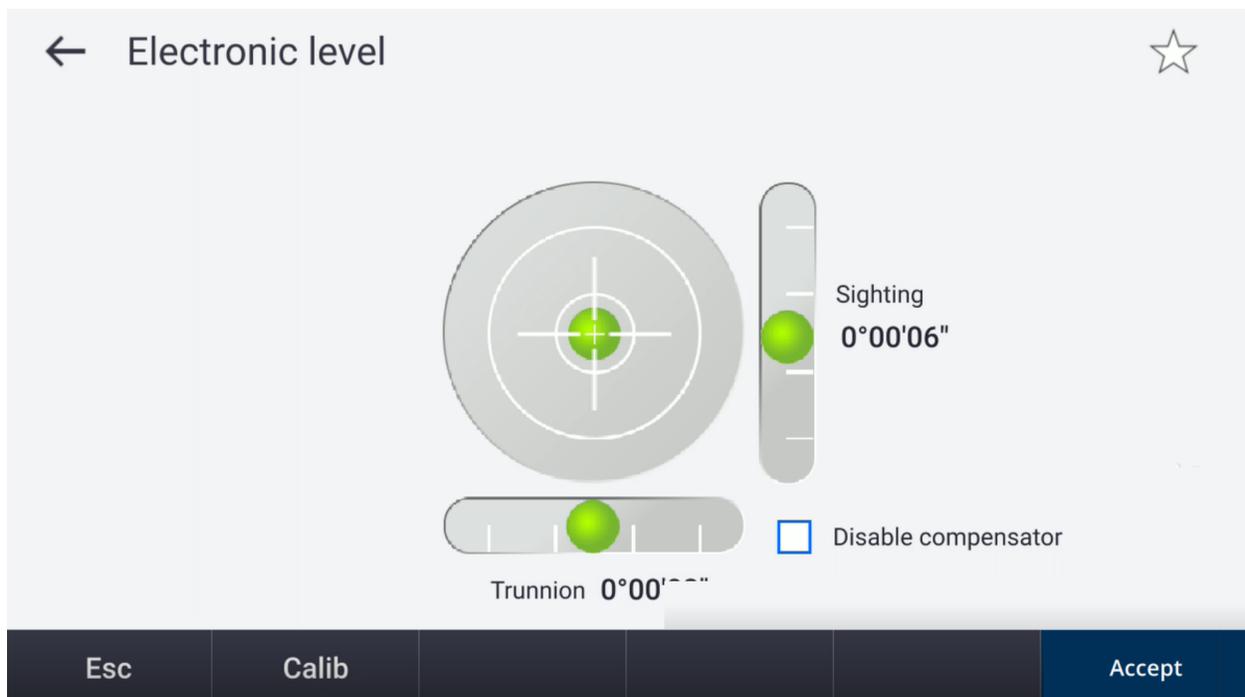
11. Tap the dropdown menu for **Connect to conventional instrument**, if your device is not there, tap **Search**.
12. A list of **Discovered** and **Paired devices** appears.
Wait until your device number appears and tap the number and **Pair**.
13. An **Establishing connection...** pop-up will appear.
14. Once paired, another pop-up will appear "**A new device has been paired**". Ensure your device name is correct and the **Device type** is set to **Connect to conventional instrument**.
Tap **Accept**
15. Navigate to the **Auto-connect** tab and Check **GNSS Receiver and FOCUS 50**.
Tap **Accept**.
16. Navigate back to the **Map Screen**.





Step 3: Level the Total Station

1. Tap the **Total Station** icon at the top of the screen and the **Instrument functions** screen will appear.
2. Tap **Level** and the **Electronic level** screen will appear.
3. Level the total station to an acceptable level.





Step 4: Start the Survey

1. Tap  and then tap **Measure**.
Tap **Focus 50** and **Station Setup**.
2. A pop-up will appear showing that Origin is connecting to the total station via bluetooth and radio.
3. Then, the **Electronic level** screen will appear where you can level the instrument and define your corrections.
Tap **Accept**.
4. You will be brought to the **Corrections** page.
Fill in the information with your current conditions.
Tap **Accept**.
5. You are now ready to begin your survey.

You have completed this tutorial.

