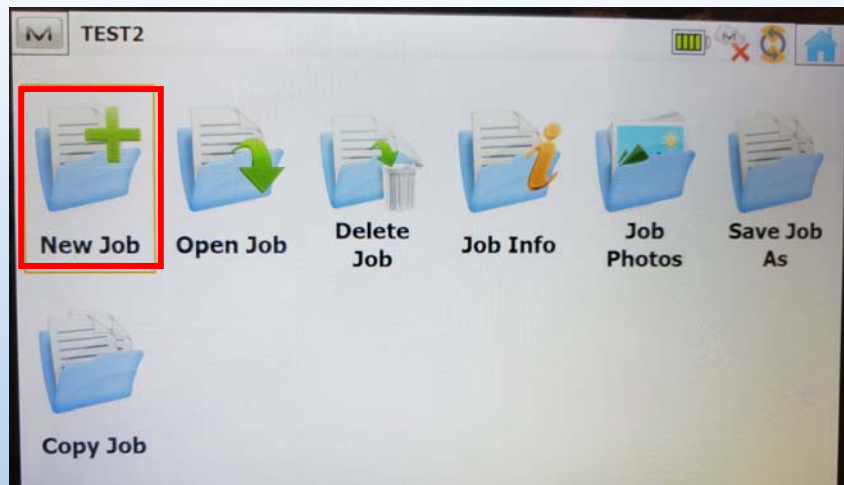


Setting up a new survey using Optical (Total Station) module on the TopCon FC-5000

Magnet Software V5.0
2018

These directions are used **AFTER** you have set up the connection between the Data Collector and Total Station. It also assumes that you have set all the defaults. These directions will show you how to occupy over a point elevation that you create (El. 100 or El. 50) and backsite to a TBM or HUB set of an unknown elevation.

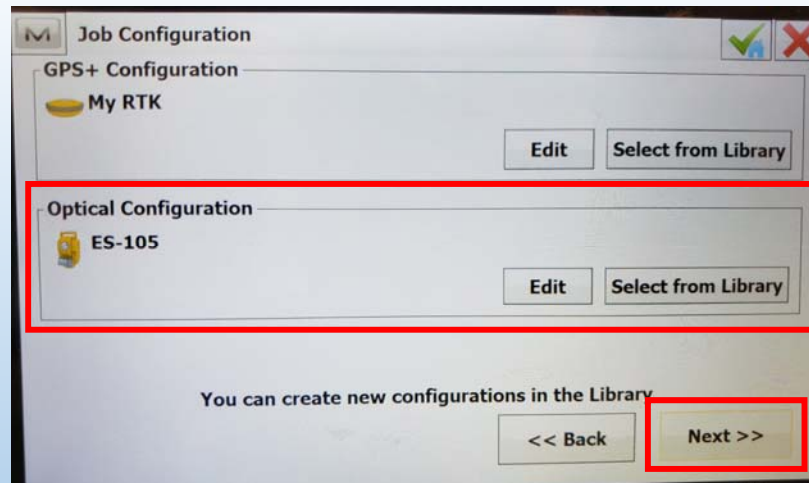
- Open up **MAGNET** on the data collector
- Create a new job



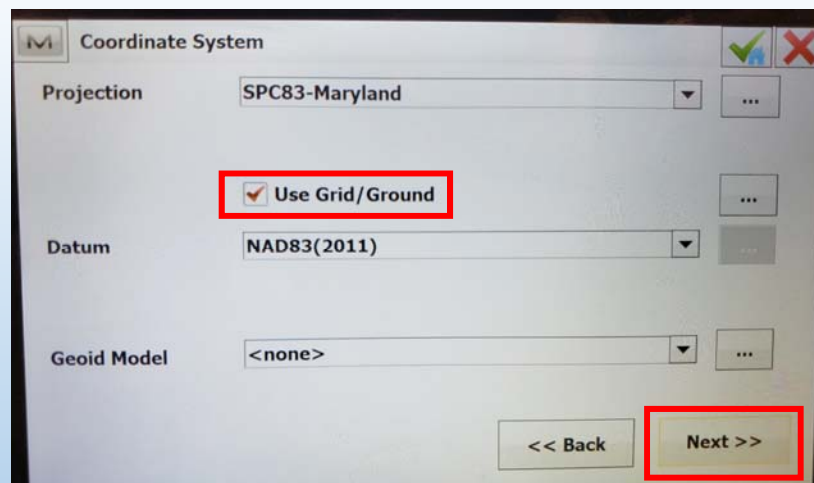
- Select **NEW JOB**

A screenshot of the 'New Job' form. The window title is 'New Job'. The path shown is 'C:\Users\USDA\Documents\MAGNET Field PC\Jobs'. The 'Name' field contains the text 'TEST3' and is highlighted with a red box. Below the 'Name' field are fields for 'Created by' and 'Comments'. The 'Current Date' is displayed as '8/24/2018 15:30 PM'. At the bottom right, there are two buttons: 'Browse' and 'Next >>'. The 'Next >>' button is highlighted with a red box.

- Name your **JOB**
- Click **NEXT**



- Select the Instrument you want to connect to
- Click **NEXT**



- Make sure **Use Grid/Ground** is selected
- Click **NEXT**

Units

Distance Angle Coordinate Other

Distance unit US Feet

Distance precision 0.1234

Area unit Square USFeet

Volume unit Cubic USFeet

<< Back Next >>

- Change any Units for the job as required, otherwise leave them as shown above
- Click **NEXT**

Display

Coord Type Ground

Plane Coord Order Northing, Easting, Height

Geod. Az. Origin North

Direction Azimuth

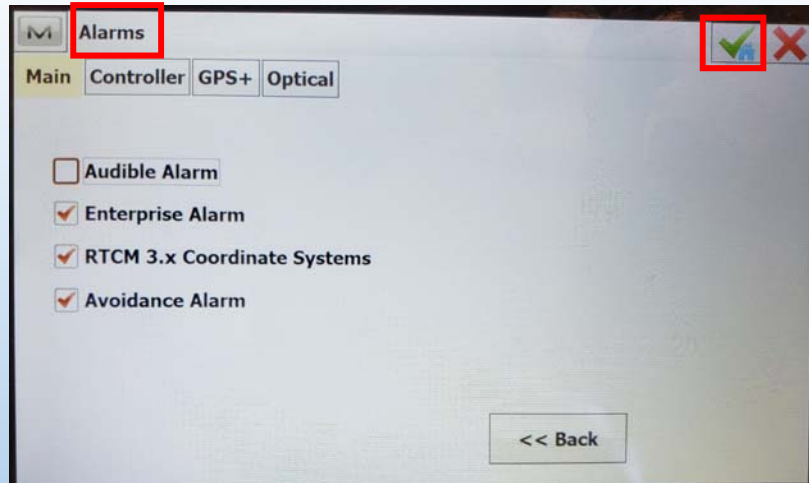
Display Slope As Percentage (%)

Station Prefix <None>

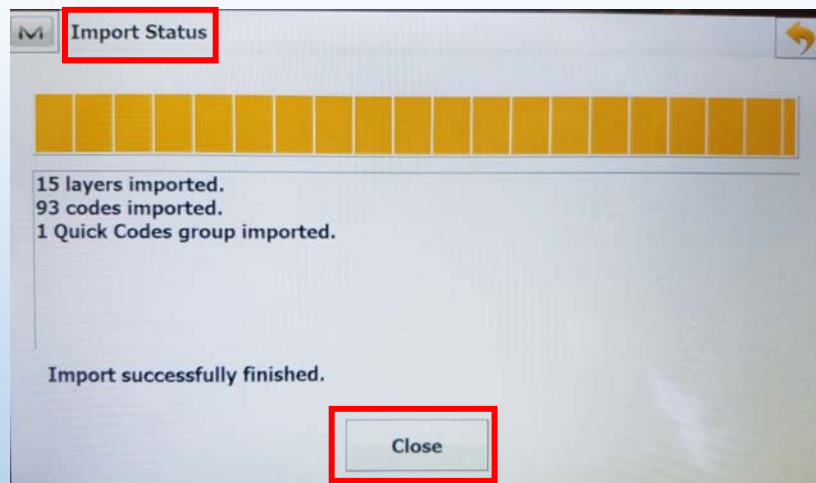
CL Position 12+34.0000

<< Back Next >>

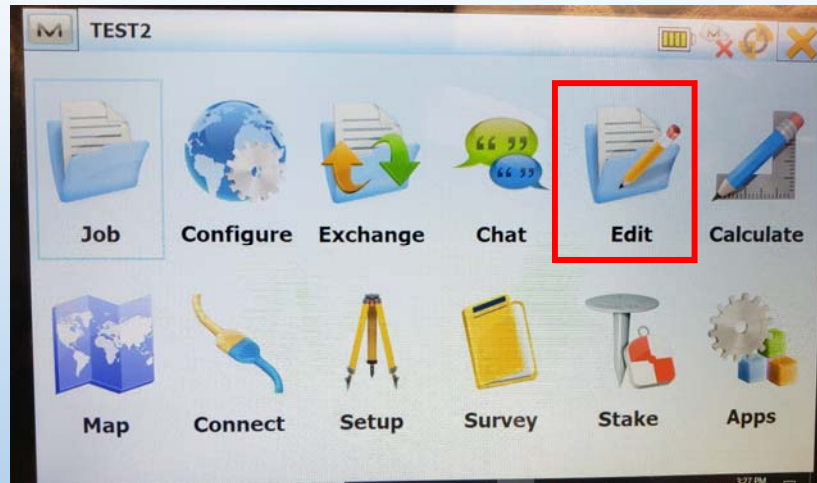
- Change any **Display** for the job as required, otherwise leave them as shown above
- Click **NEXT**



- Change any **Alarms** for the job as required, otherwise leave them as shown above
- Click **Green Checkmark/Home button**

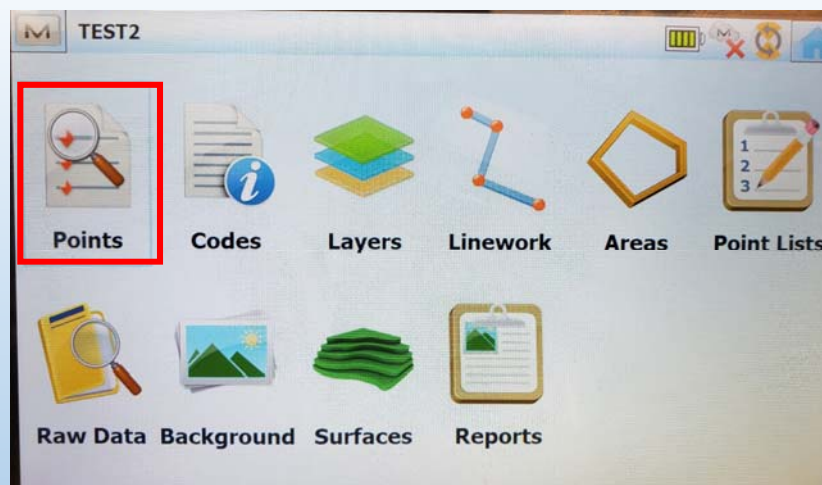


- Click **CLOSE**

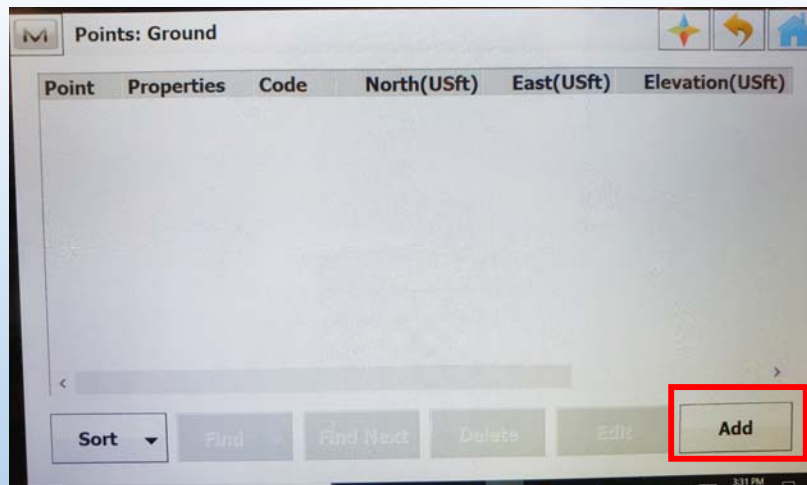


You now need to add the point you are set up on

- From the **Home** screen, select **EDIT**

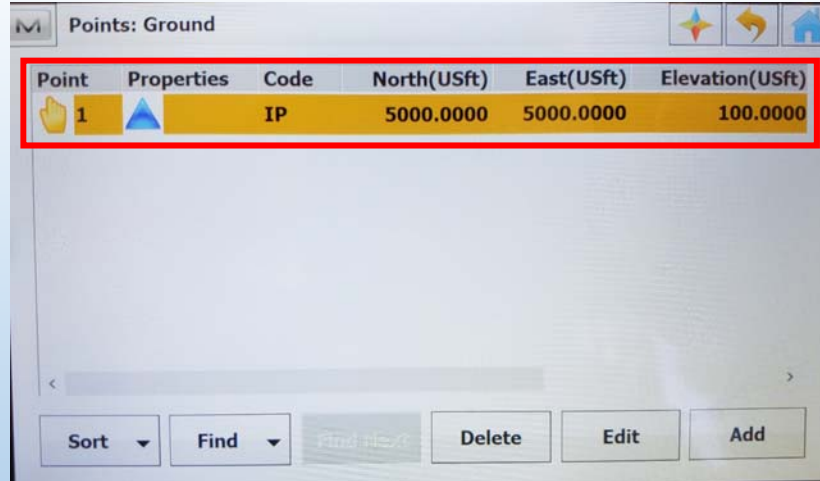


- Select **POINTS**



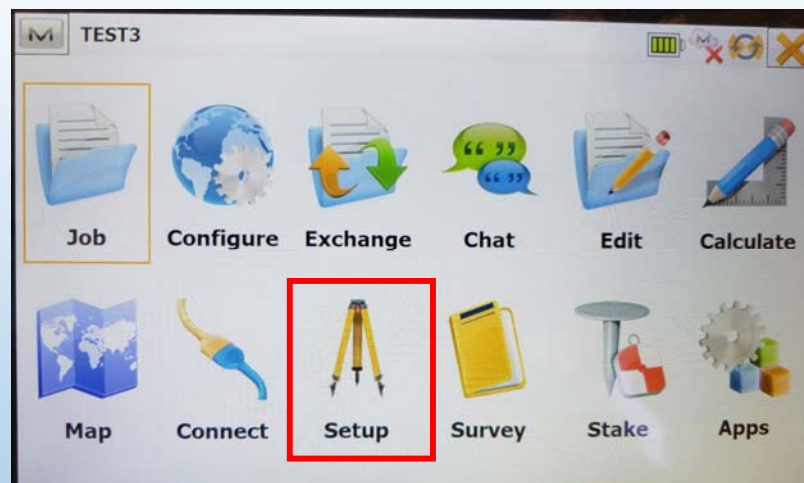
- Select **ADD**

- Under **POINT** tab > Enter Point <1>
- Check **Control Point**
- Select **Code** to be **IP, HUB, or TBM**
- Enter the North **5000** East **5000** Elevation **100** or **50** (Depending on your elevation change)
- You can place on a certain **Layer** and also take a **Photo** if you want to (the other tabs)
- Click the **Checkmark**



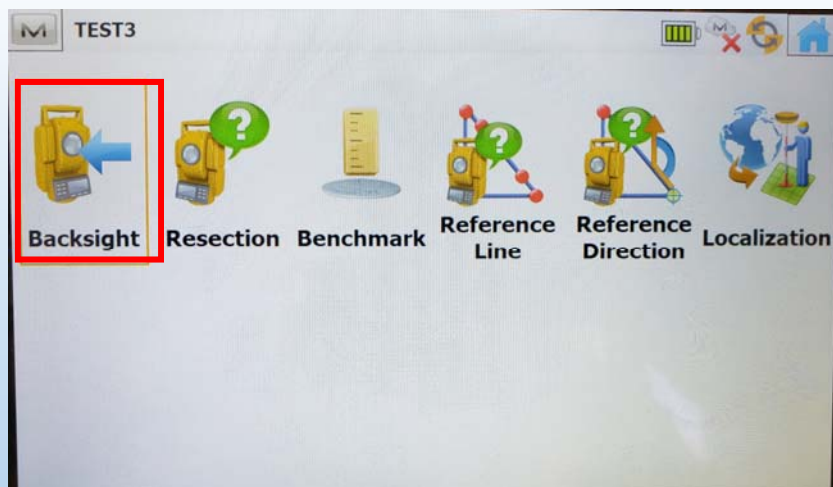
Point	Properties	Code	North(USft)	East(USft)	Elevation(USft)
1		IP	5000.0000	5000.0000	100.0000

- You will see the point you just created, make sure everything looks correct and then click the **HOME** button



You now need to add the Backsight Point

- Click **SETUP**



- Click **BACKSIGHT**

The screenshot shows the 'Bacsight' configuration screen. The 'Occupation Point' section is highlighted with a red box, showing fields for Point (1), HI (5.3300), and Scale (1.000000000000). The 'Bacsight Point' section shows a field for Point and a field for HI (6.0000). There is also an 'Observation info' checkbox and a 'Next >>' button.

- **Occupation Point**
 - Point <1>
 - HI <Enter Instrument Height>
 - Scale <Leave as default>

Occupation Point
 Point: 1
 HI: 5.3300 USft
 Scale: 1.000000000000

Bacsight Point
 Azimuth: 0°00'00"
 -30 6.0000 USft

Observation info Next >>

- **Bacsight Point**
 - Azimuth <Set to 0>
 - Prism Height <Enter Prism Height >
- Click **NEXT**

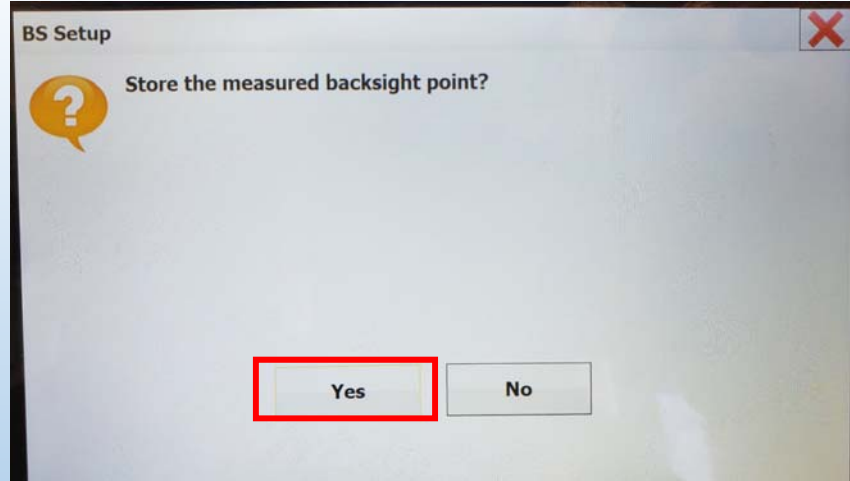
Bacsight: Normal

Occ	1	5.4300 USft
BS	---	6.0000 USft
Azimuth	0°00'00"	

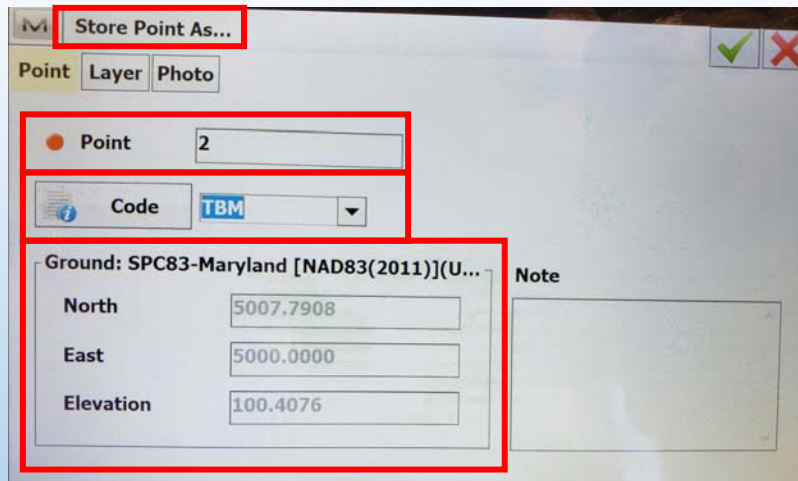
Set Circle to: 0°00'00"

Meas Distance Set

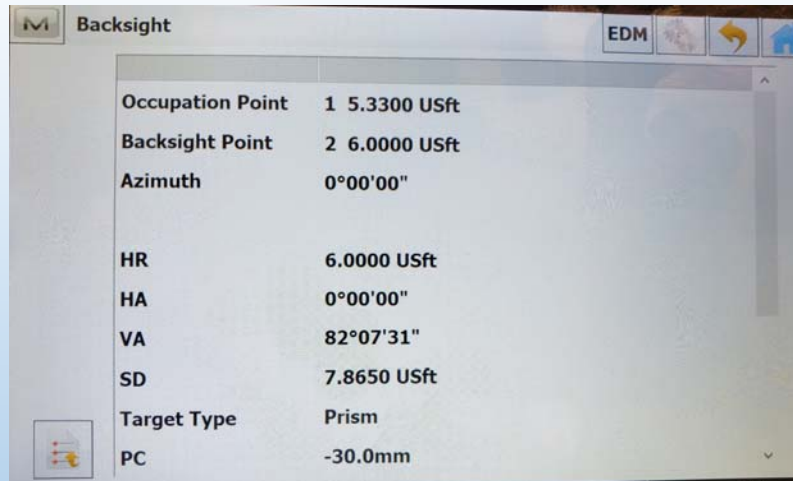
Verify all the information is correct and Click <SET>



- Select **YES**



- Select **STORE POINT AS....**
 - Select Point <2>
 - Select Code <TBM> This could be HUB also
 - Click **CHECKMARK** button



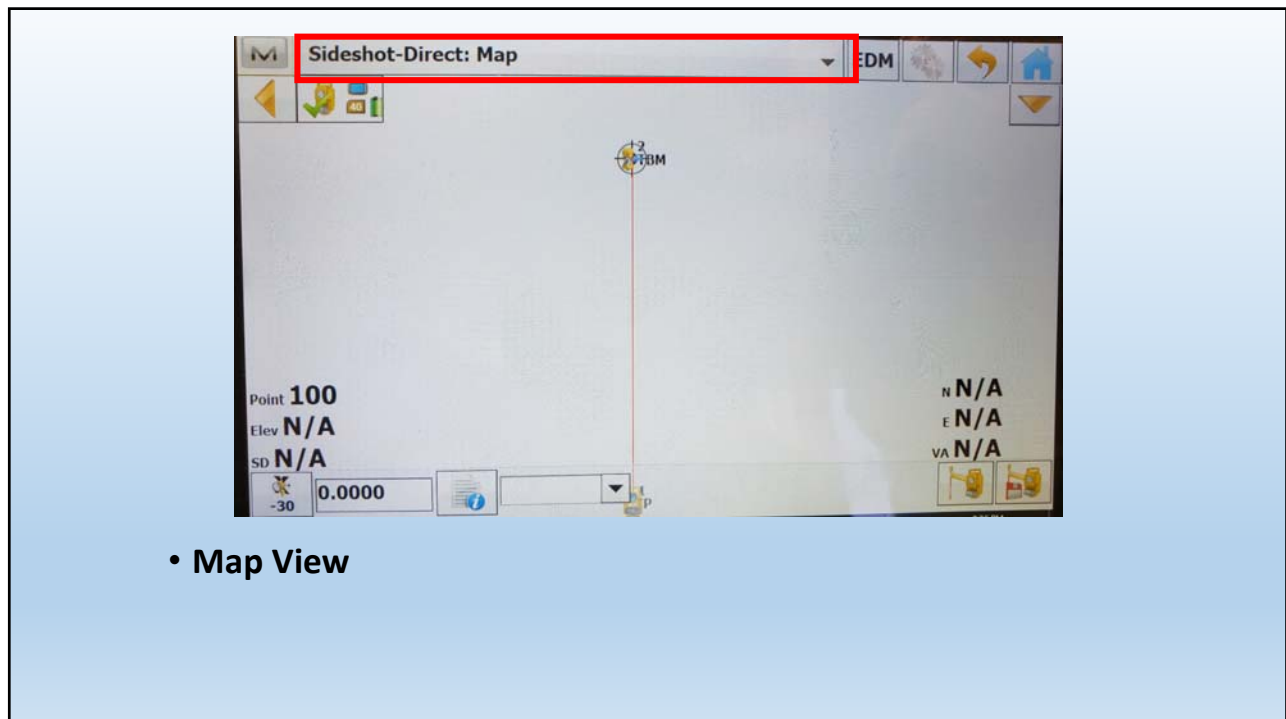
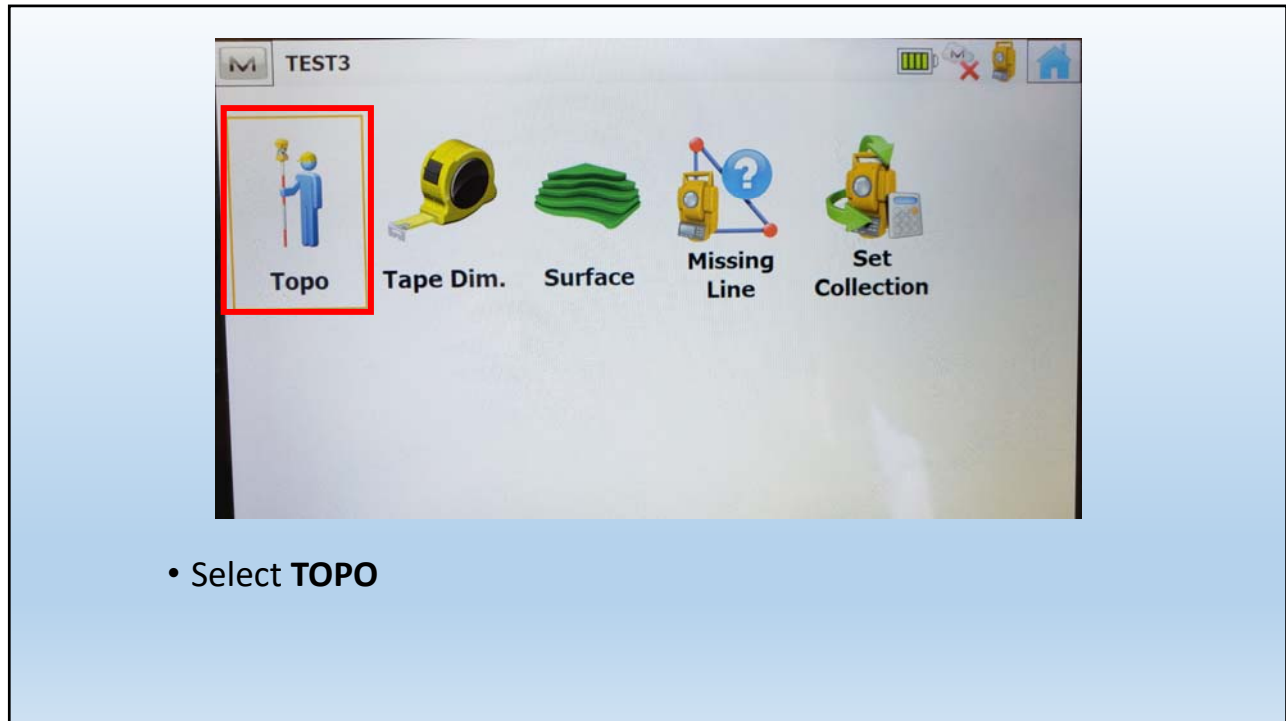
Backsight	
Occupation Point	1 5.3300 USft
Backsight Point	2 6.0000 USft
Azimuth	0°00'00"
HR	6.0000 USft
HA	0°00'00"
VA	82°07'31"
SD	7.8650 USft
Target Type	Prism
PC	-30.0mm

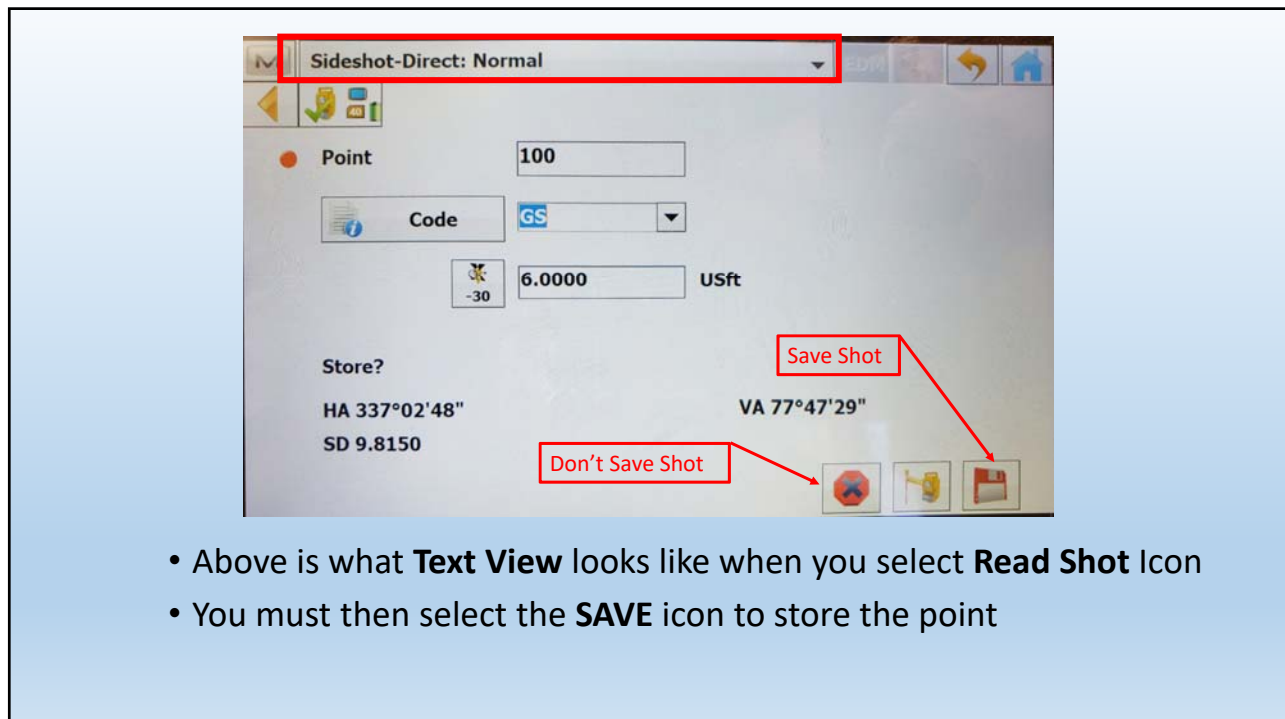
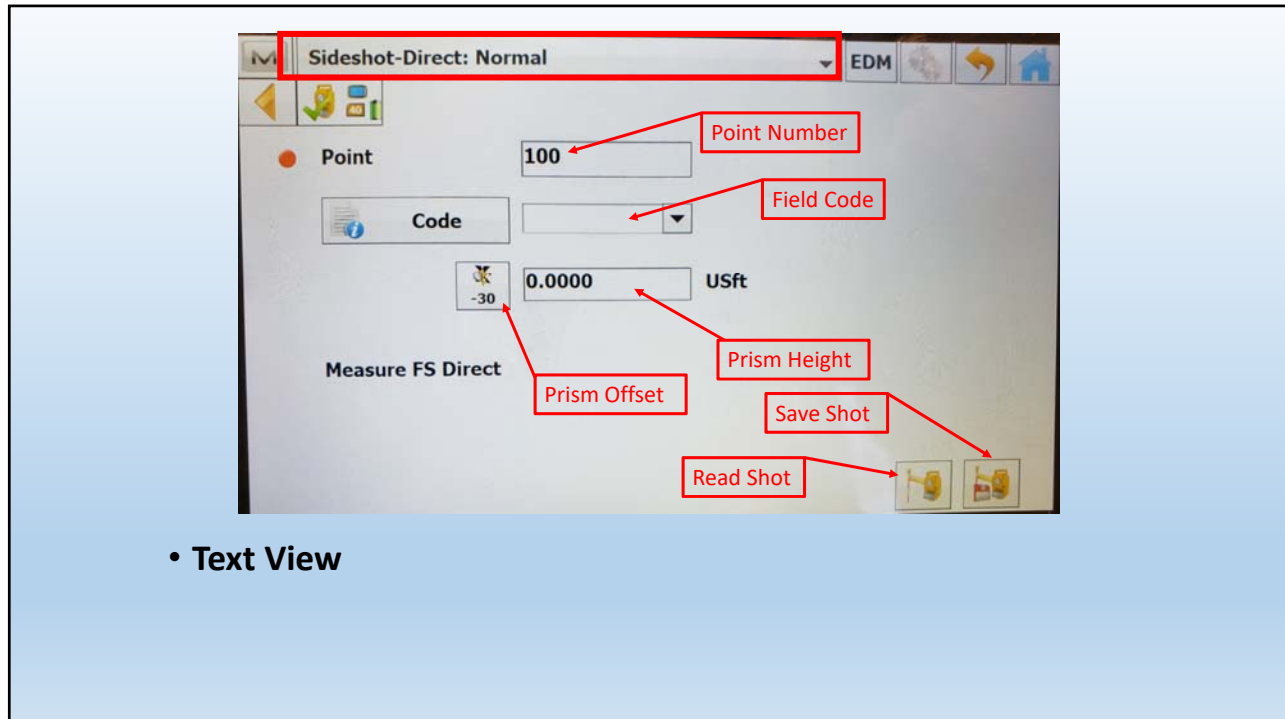
- The next page will give you a preview of the point
- If satisfied, click the **HOME** button

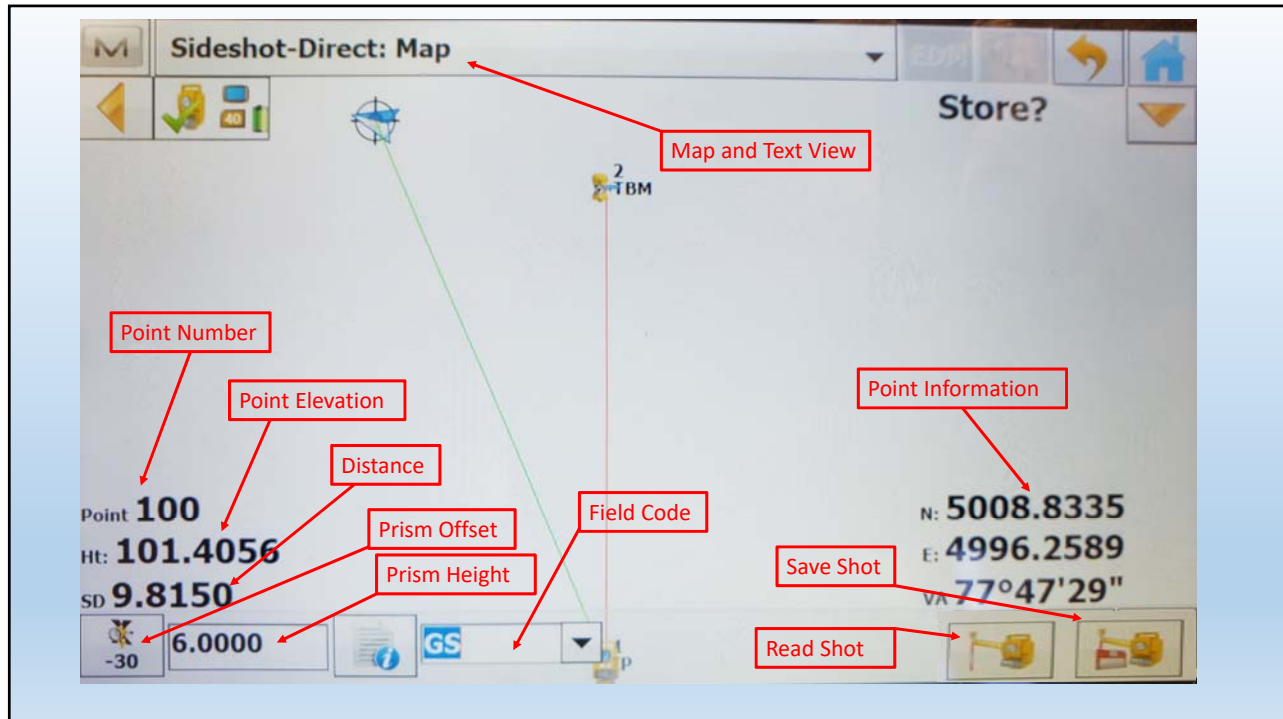


To start taken shots:

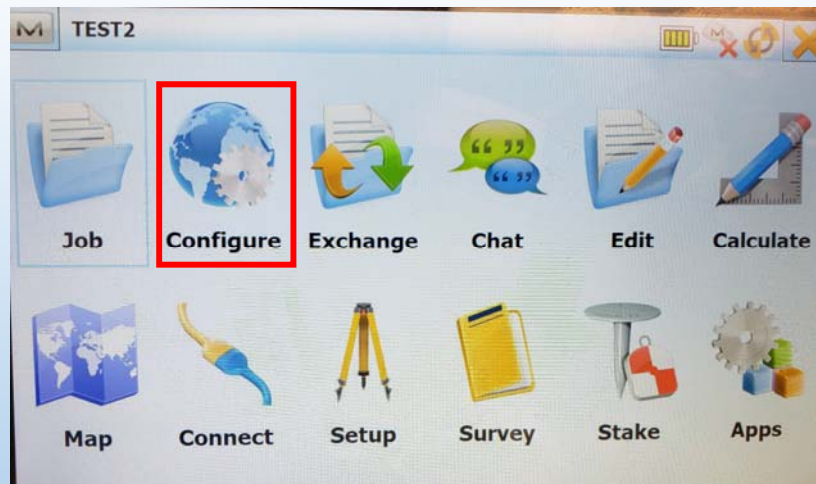
- Select **SURVEY**







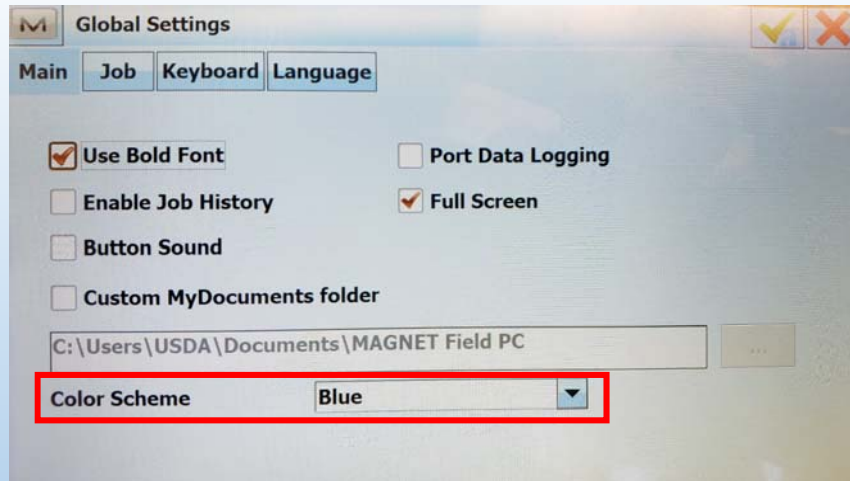
Adjusting the display on the TopCon FC-5000 Magnet Software V5.0 2018



- Select **CONFIGURE**



- Select **GLOBAL**



- Select **COLOR SCHEME DROPDOWN**