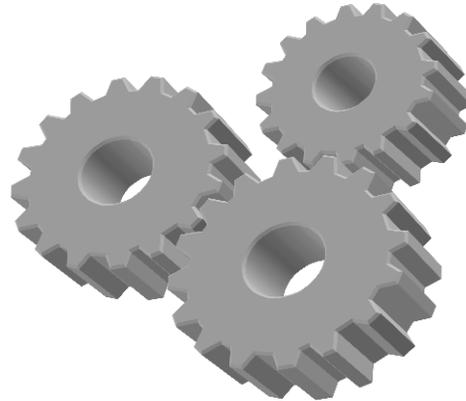


**OREGON
DEPARTMENT
OF
TRANSPORTATION**



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Inspector Tablet GNSS/ORGN Setup

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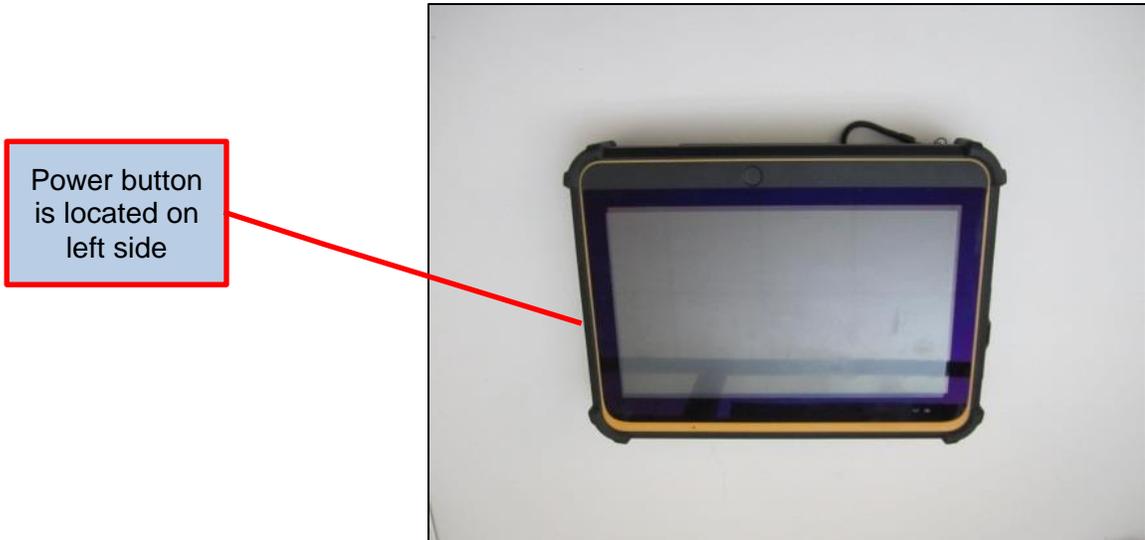
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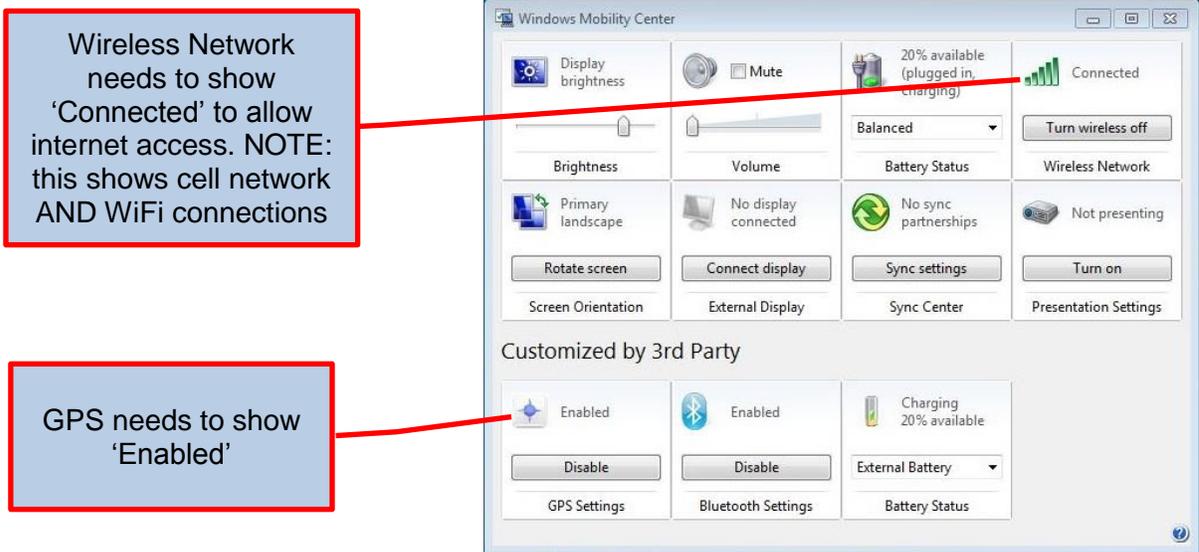
| | |
|--|------------------|
| Title | GNSS/ORGN Setup |
| | FieldGenius 8.1 |
| Model | DT391-P303 |
| Date | November 6, 2015 |
| Author | Chris Pucci |
| Overview This document will give instructions for setting up the GNSS and connecting the tablet to the ORGN. | |

Initial setup

- Turn the unit on and flip up the internal antenna.

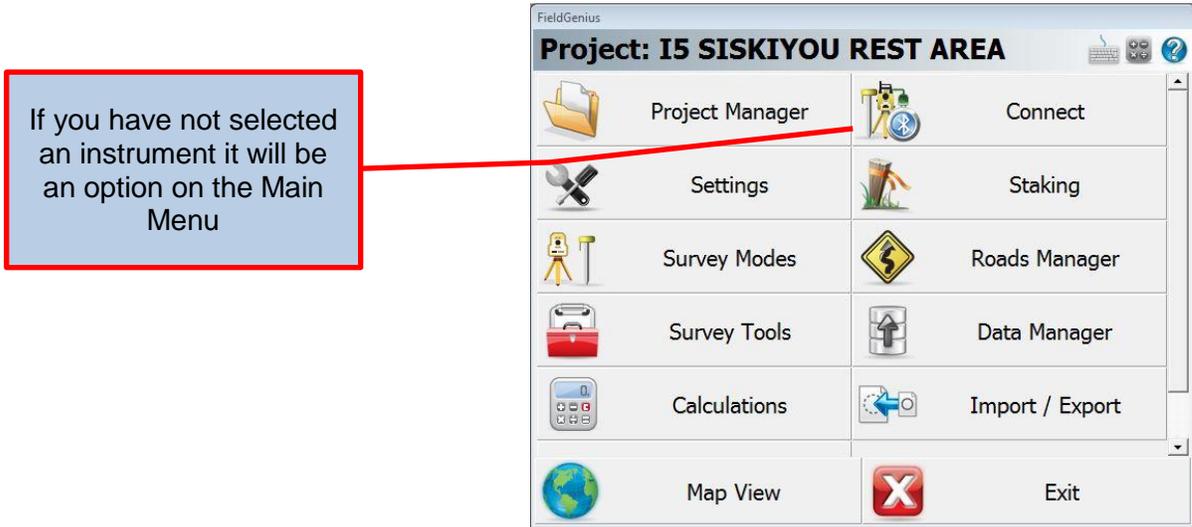


- From the Windows desktop you need to make sure that the internal GNSS unit and internet access is enabled before continuing to FieldGenius. In the Windows Control Panel open the **Windows Mobility Center** to check their status.

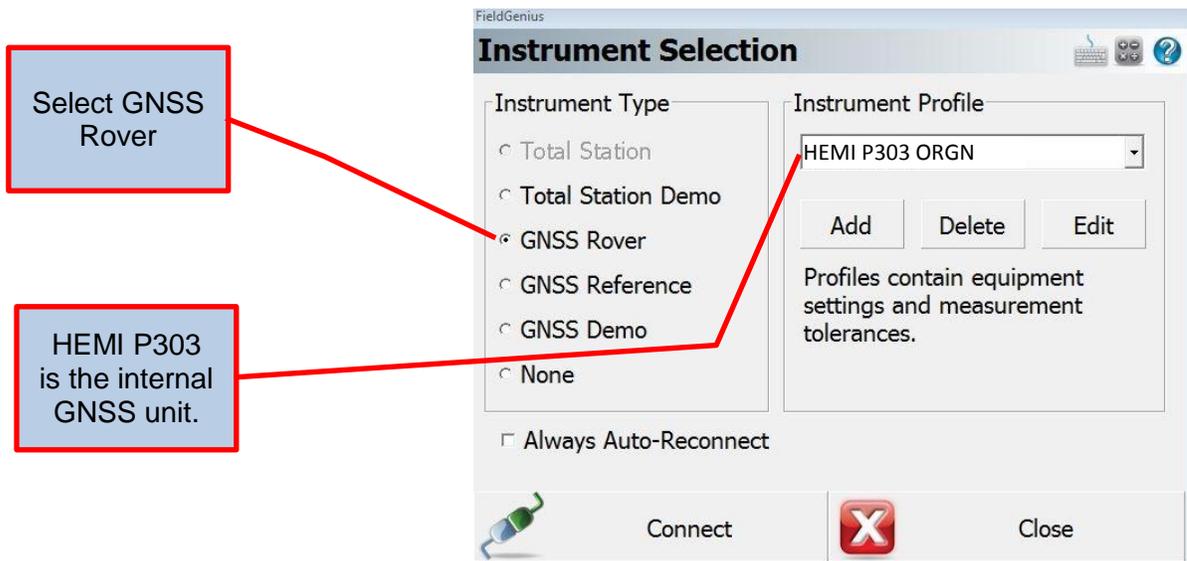


FieldGenius GNSS setup

- From the Windows desktop tap on the FieldGenius 8 icon. FieldGenius will open.
- You can get to the Instrument Selection menu in many ways. Either as a step in setting up a job or if you did not connect to an instrument when setting up the job, Connect will be an option on the Main Menu screen. Tap Connect to select an instrument.



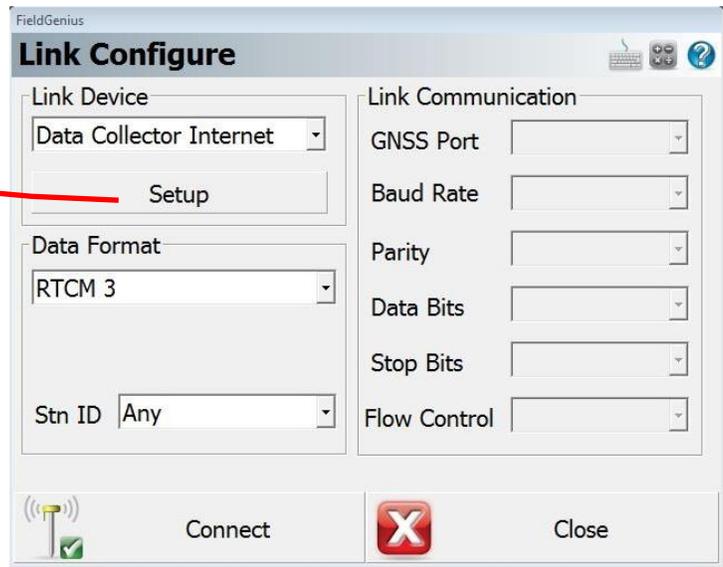
- From the Instrument Selection screen, select “GNSS Rover” and select the HEMI P303 ORGN from the drop down in the Instrument Profile menu. Tap Connect to start the HEMI P303 ORGN Connection.



FieldGenius ORGN setup

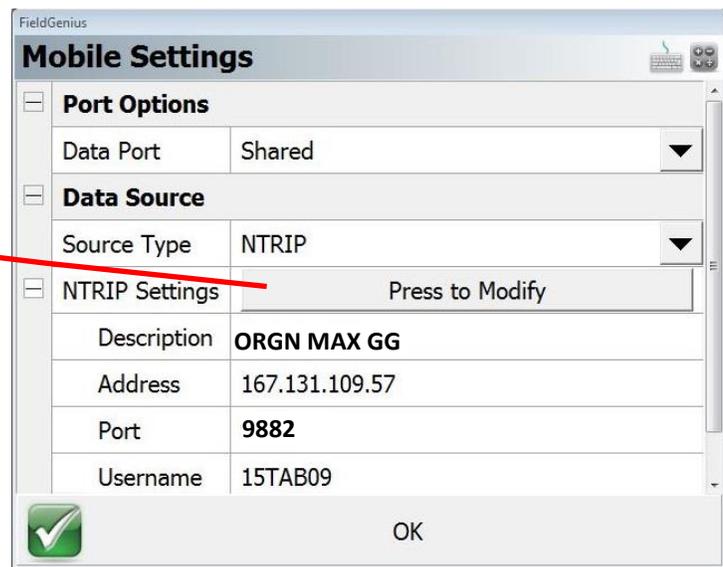
- The Link Configure screen will popup automatically after you have connected the GNSS unit. The Link Configure screen will allow you to connect to the ORGN via the internet to get a real time corrected GNSS position. You will use the Data Collector Internet with a Data Format of RTCM 3 to make the connection.

Tap Setup to access the Mobile Settings menu shown below



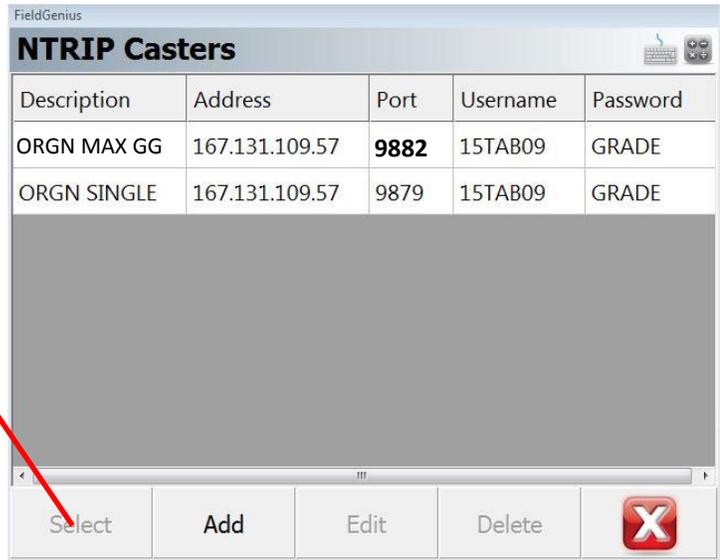
- If you select Setup from the Link Configure menu you can select how you use the ORGN. There are two main choices, a Network solution (ORGN MAX GG) or a Single Base solution (ORGN SINGLE). Depending on your location one may work better than the other.

Press to Modify will allow you to select ORGN MAX GG or ORGN SINGLE



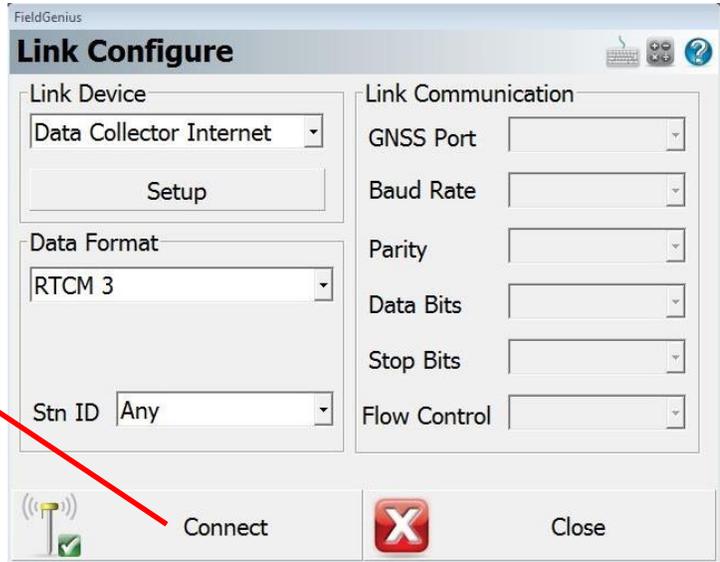
- If you Press to Modify from the Mobile Settings menu the NTRIP Casters menu will popup. This is where you select the type of solution that will be used.

Highlight your choice and tap Select

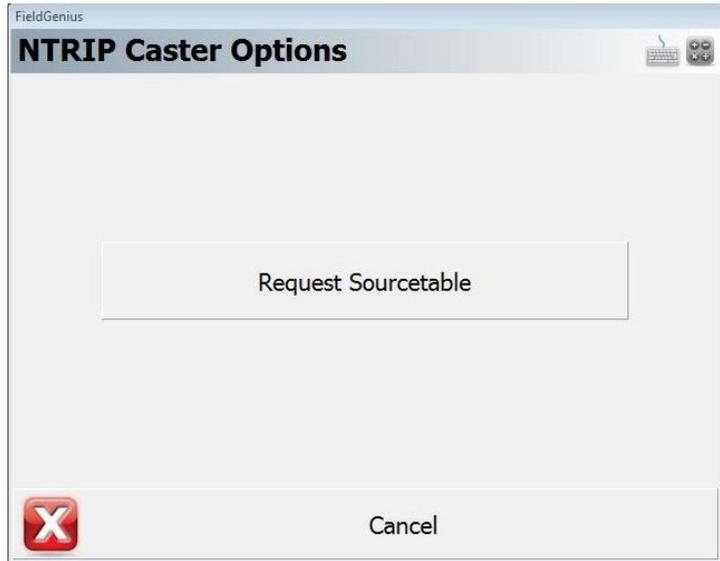


- The Mobile Settings menu will return and if your selection is listed correctly tap OK to continue. The Link Configure screen will then popup.

Tap Connect to establish an internet connection with the ORGN



- The NTRIP Caster Options menu will then appear. Tap Request Sourcetable to continue.



- The NTRIP Sourcetable will then appear. For an ORGN MAX GG solution, highlight MAX_GG_RTCM3 and tap Select.

ORGN MAX GG
Sourcetable

| Mount Point | Identifier | Format | Format Details | C |
|-------------------|-------------------|--------|----------------|---|
| GIS_Nearest | GIS_Nearest | RTCM 2 | | R |
| MAX_GG_RTC... | MAX_GG_RTC... | RTCM 3 | | R |
| IMAX_GG_RTC... | IMAX_GG_RTC... | RTCM 3 | | R |
| IMAX_GG_CM... | IMAX_GG_CM... | CMR+ | RTCM 2.3 | R |
| IMAX_GG_CMR | IMAX_GG_CMR | CMR+ | | R |
| Nearest_Single... | Nearest_Single... | RTCM 3 | | R |

- You will then be prompted to confirm the settings for MAX_GG_RTCM3. They should appear as below. Tap Select to continue.

ORGAN MAX GG
Mountpoint Settings

FieldGenius
NTRIP Sourcetable

Please confirm the settings for the selected mountpoint (MAX_GG_RTCM3).

Correction Format:

NMEA Required:

Select Cancel

- If you had selected ORGN SINGLE your NTRIP Sourcetable would show you all of the available ORGN stations and you would need to select the one most appropriate for your location. Highlight your choice and tap Select.

ORGAN SINGLE
Sourcetable

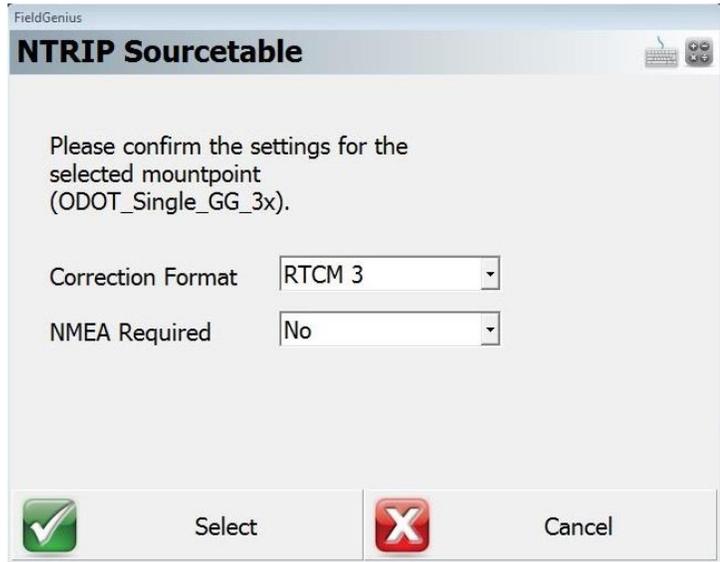
FieldGenius
NTRIP Sourcetable

| Mount Point | Identifier | Format | Format Details |
|-----------------|-----------------|--------|----------------|
| P412_CMR | P412_CMR | CMR+ | |
| JIME_Single | JIME_Single | RTCM 2 | |
| VCWA_Single | VCWA_Single | RTCM 2 | |
| ODOT_Single_... | ODOT_Single_... | RTCM 3 | |
| WAMC_CMR | WAMC_CMR | CMR+ | |
| TDLS_CMR | TDLS_CMR | CMR+ | |
| GRAS_CMR | GRAS_CMR | CMR+ | |

Select Cancel

- The ORGN SINGLE settings are slightly different, NMEA is not required. Tap Select to continue.

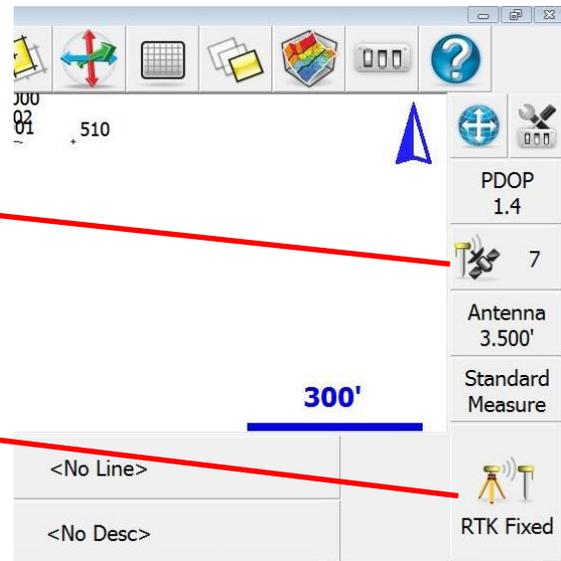
ORGN SINGLE
Mountpoint Settings



- You should now be connected. If you are outside and receiving enough GNSS signals you should have an RTK FIXED solution.

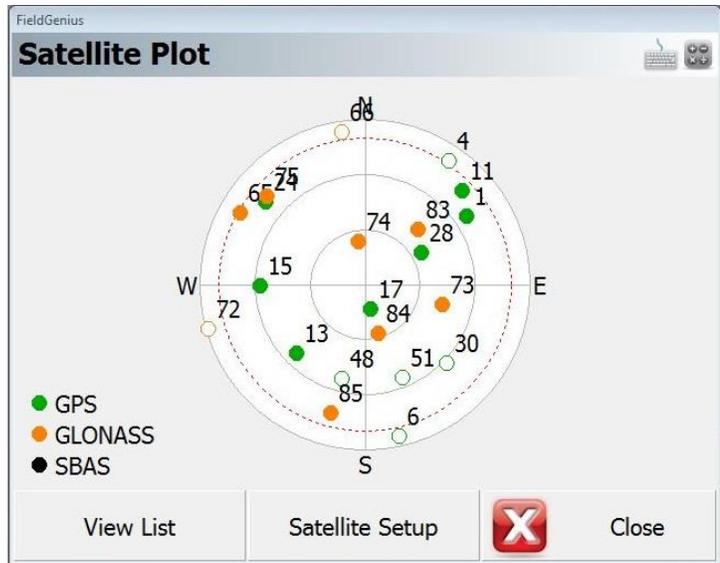
Satellite icon

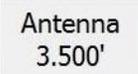
Icon showing you have an RTK Fixed solution



- Tapping the Satellite icon  will bring up the Satellite Plot menu showing how many satellites are being tracked. Only GPS satellites are counted on the small icon, but all satellites are shown on the Plot screen.

Filled circles are satellites locked and used. Empty circles are tracked but not used in the solution.

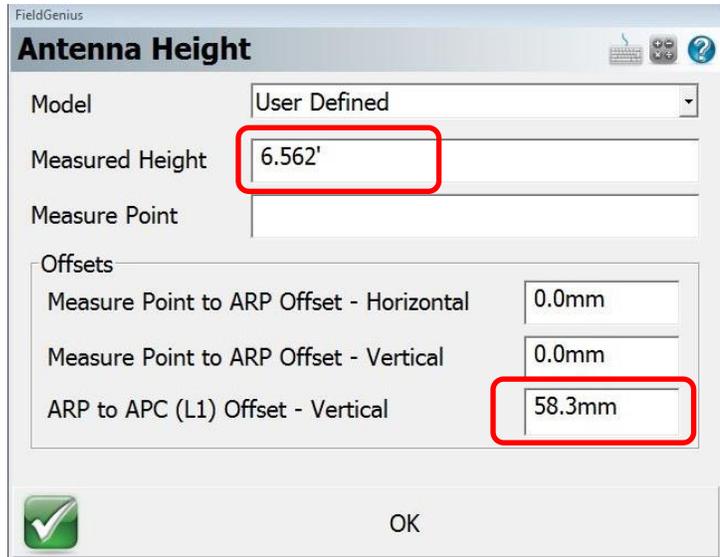


- Tapping the Antenna Height icon  will bring up the Antenna Height menu allowing you to change your antenna height which is the height the GNSS antenna is above the point you want to measure. It is critical to enter the correct antenna height if you wish to get an accurate vertical reading.

If you are using the P303 internal antenna, the Measured Height is how far above the ground you are holding the tablet

- If you have attached the external Leica AS10 antenna and mounted it to the fixed length rod you need to change the antenna model and height to get correct readings. You do not need to make any other changes in the unit. It automatically switches to the external antenna when the cable is connected.

Select User Defined for the Model, 6.562' for the Measured Height and set the ARP to APC offset to 58.3mm



- Once you have everything setup and you are working in a job you will not need to go through all of the steps each time you turn on the unit. After starting FieldGenius and selecting a job you will be prompted with the Reconnect menu. You can tap Reconnect and it will connect the GNSS unit and jump you to the Link Configure menu where you can tap Connect to use the ORGN settings from the previous session.

Reconnect using the previous settings

