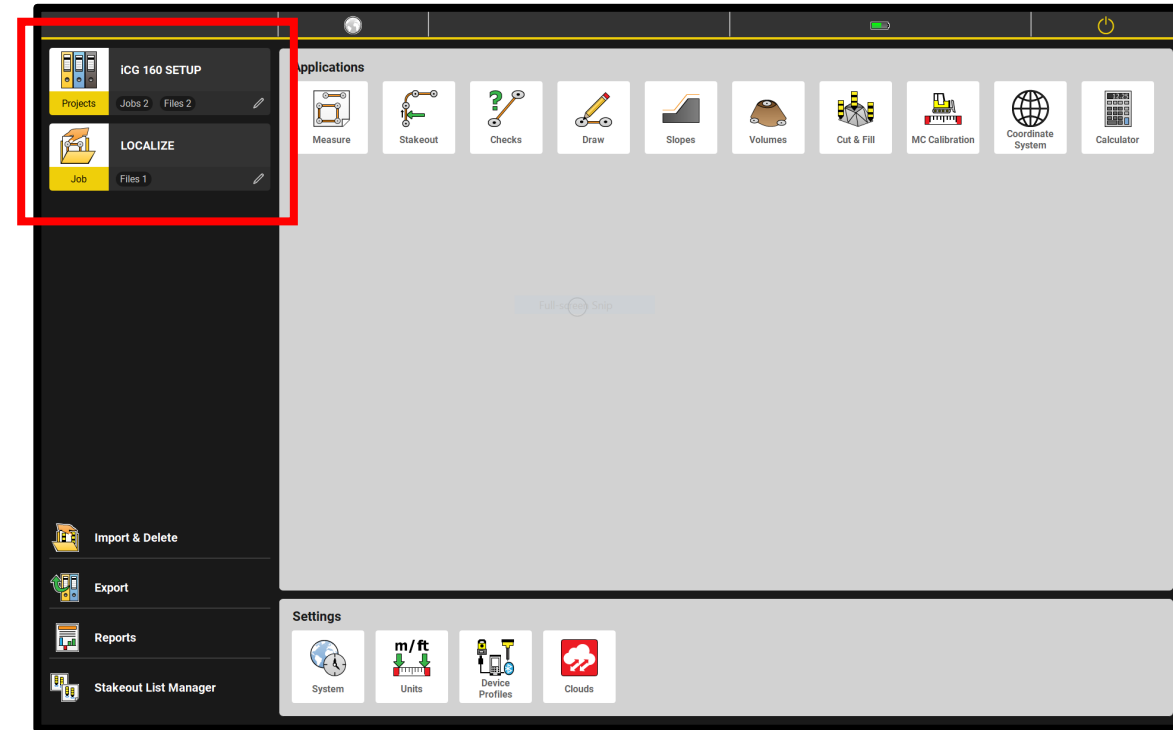


Leica iCON GPS 160 Base Station Setup





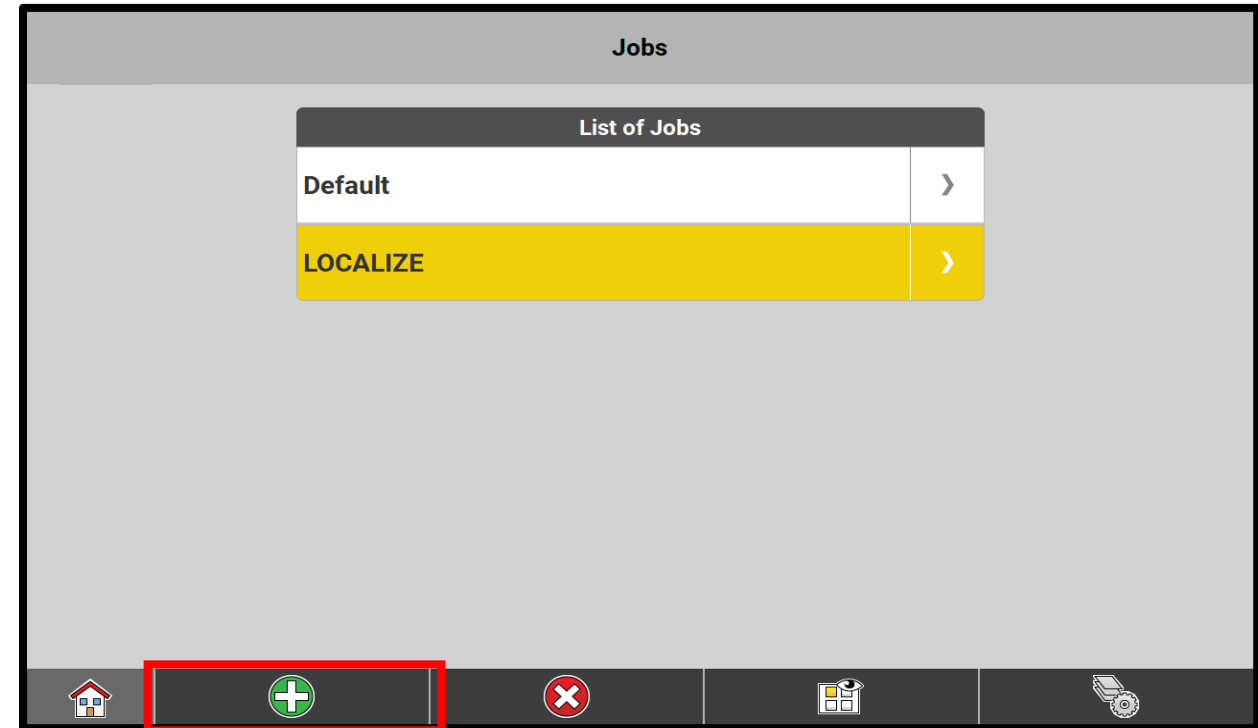
Setting up a Base Station

- Insert battery into Base unit and Tablet
- Turn on Base unit with red power button on faceplate
- Turn on Tablet with black power button on top right corner
- Create new Project and Job (see previous guide)




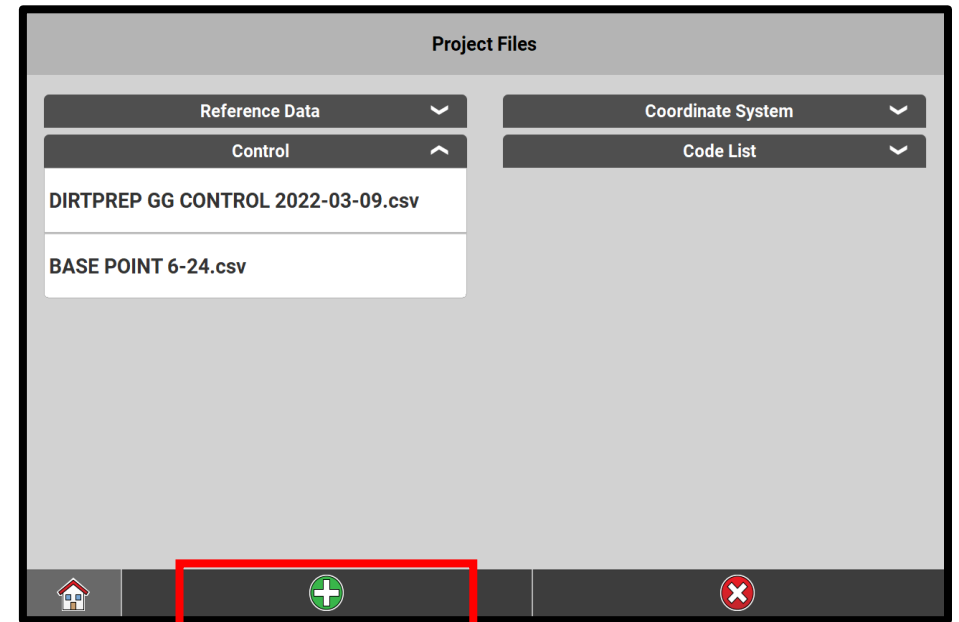
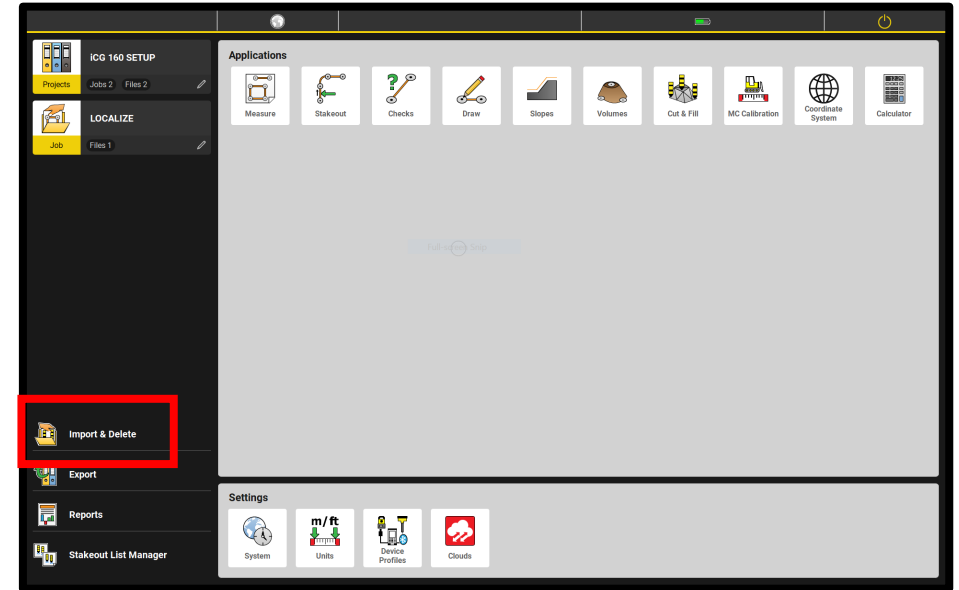
Setting up a Base Station

- On Home screen, select **Job**, press 
- Name the job "**Localize [YY-MM-DD]**", press 




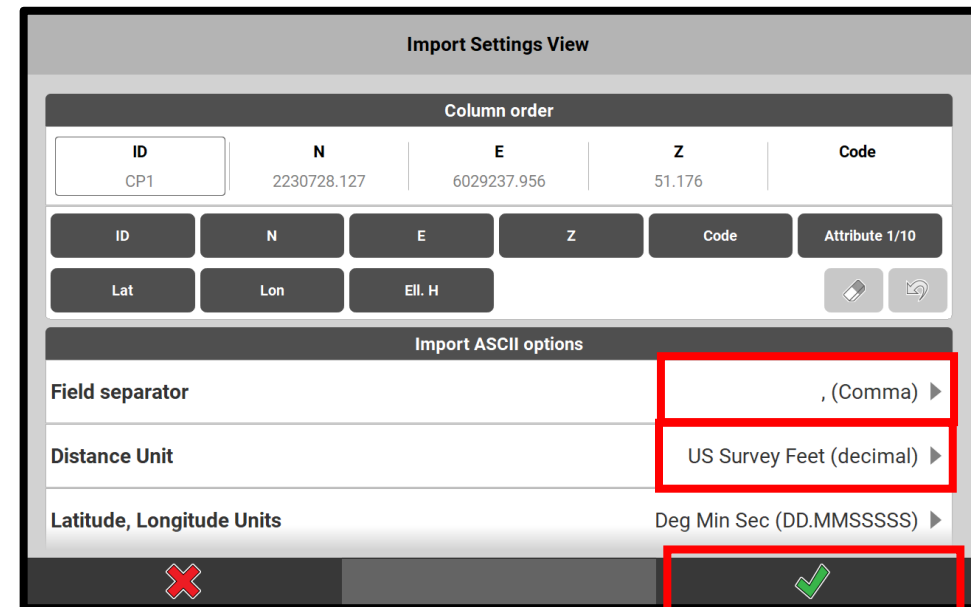
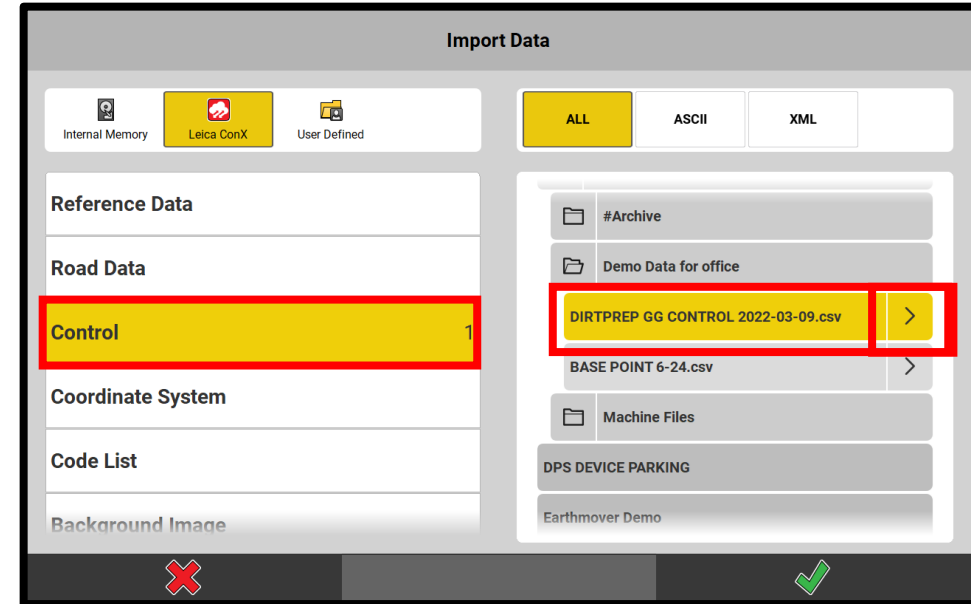
Setting up a Base Station

- After creating the job, load in the control points from USB or ConX
- Select Import and Delete
- Press 





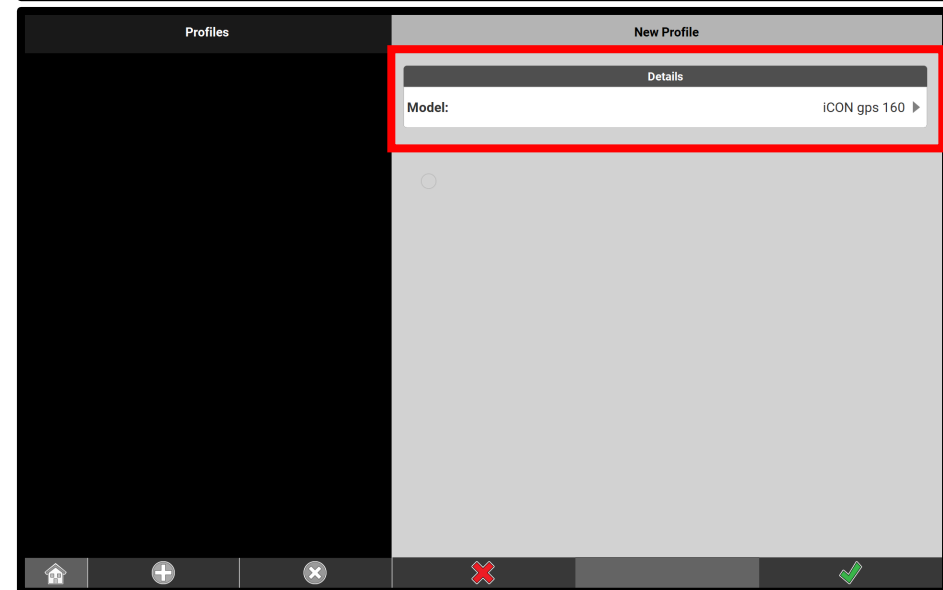
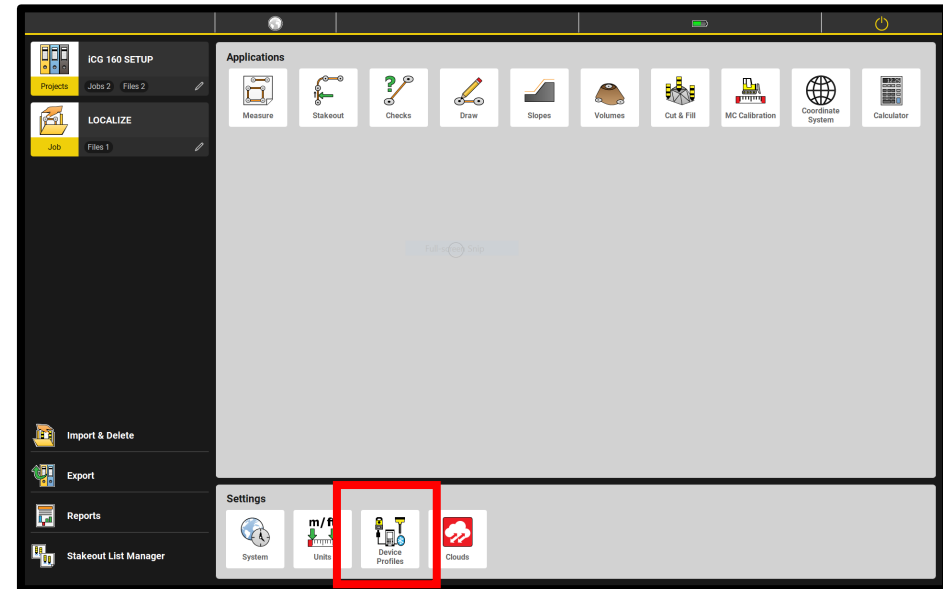
Setting up a Base Station

- Select **Control**
- Choose the control point file, pressing the **right arrow**
- Check that field separator is **comma** and distance unit is **US Survey Feet**
- Press 




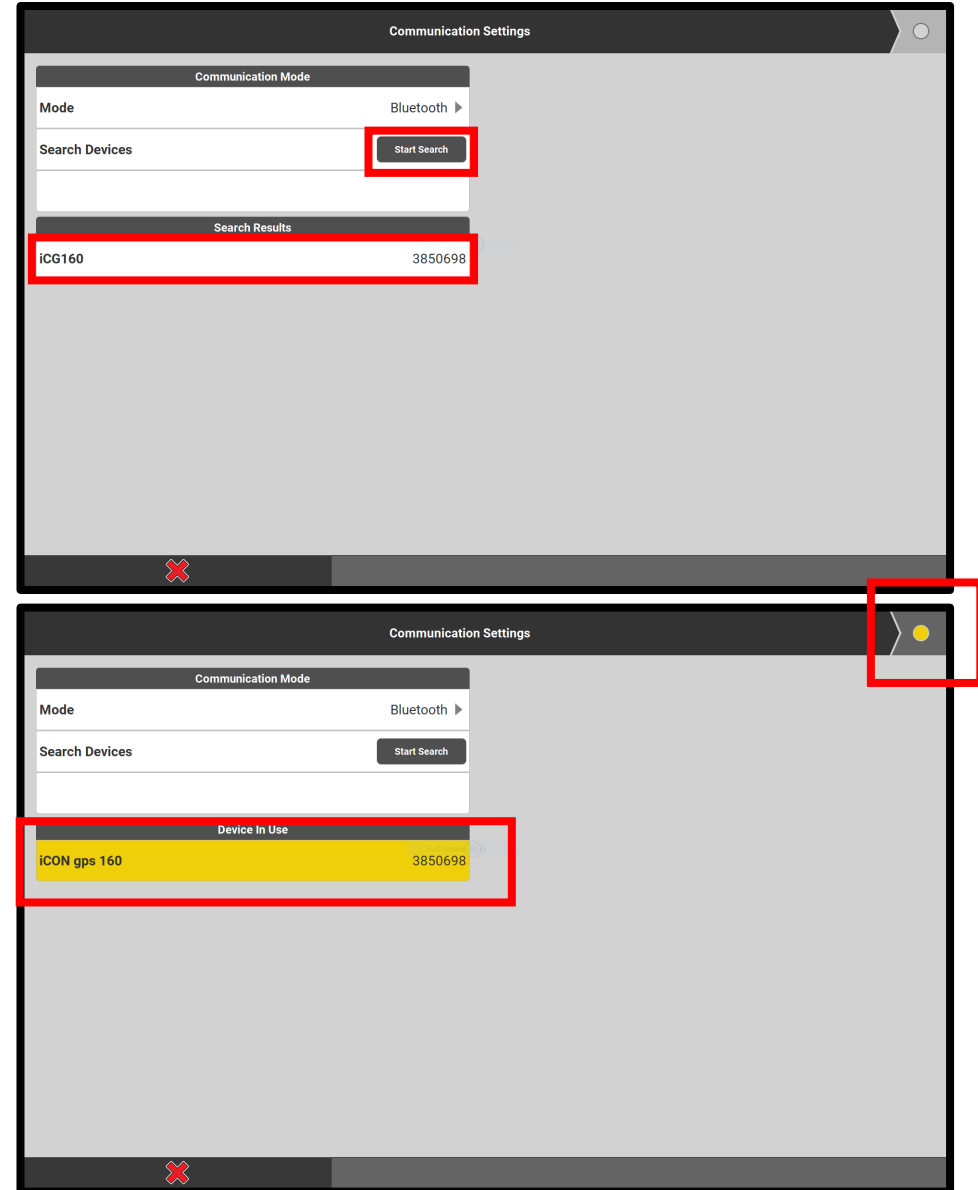
Setting up a Base Station

- On Home screen, Select Device Profiles
- Press  to add a device
- Change Model to iCON gps 160
- Press 




Setting up a Base Station

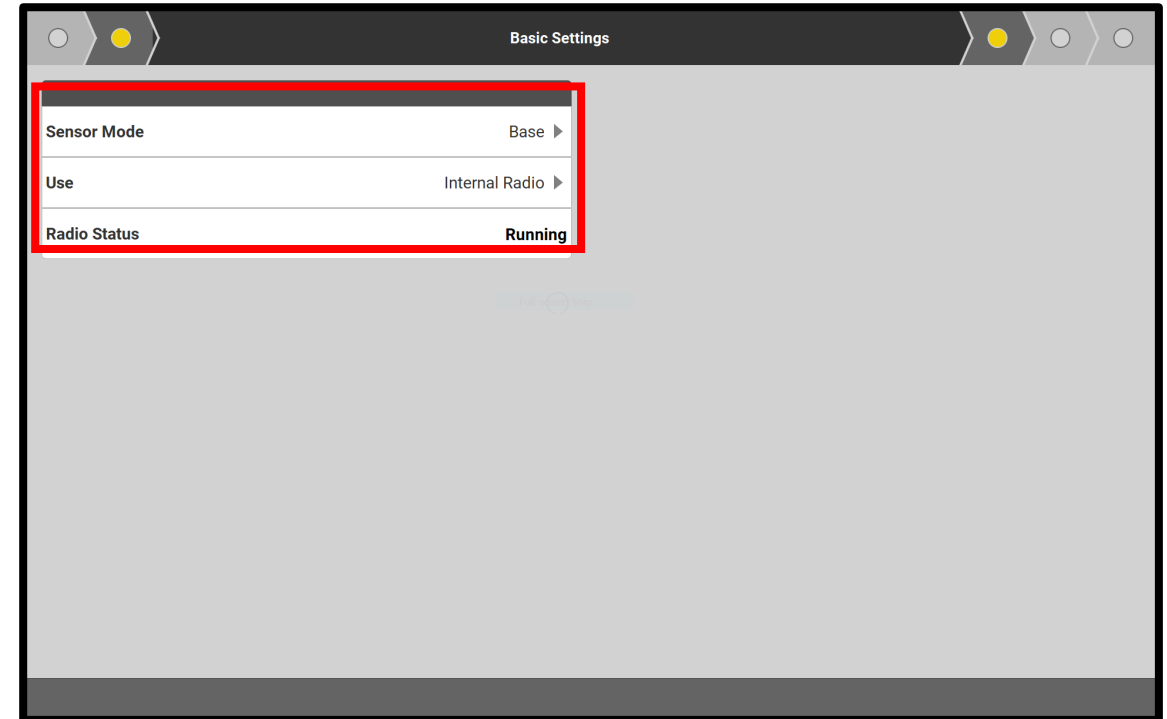
- Select **Communication**
- Mode: **Bluetooth**
- Press **Start Search**
- Select available iCG160 by tapping only once
- The start button will change to 'stop connecting' - this means it's trying to pair to the device
- Wait until device turns yellow (meaning connected), press  to continue




Setting up a Base Station

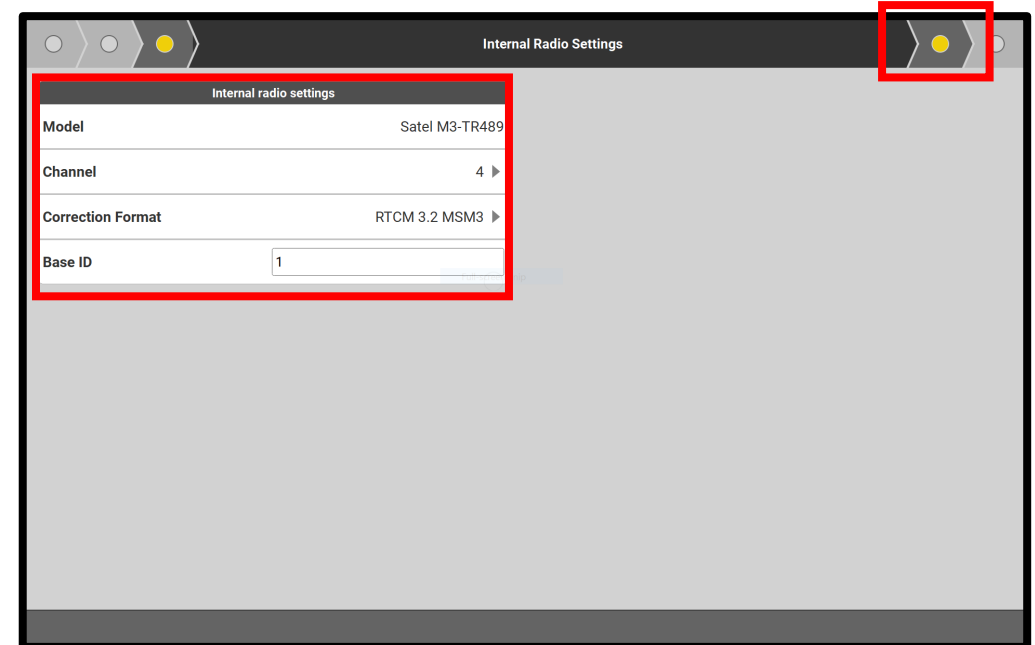
- Select the following

- Sensor mode: Base
- Use: Internal radio
- Radio Status: Running
- Press  to continue



Setting up a Base Station

- **Model**: Model of Radio used in 160
- Enter desired **Channel** (enter number between 0 and 9)
- **Correction Format**: RTCM v3.2 MSM (3-Compact)
- Press 




Internal Radio Settings

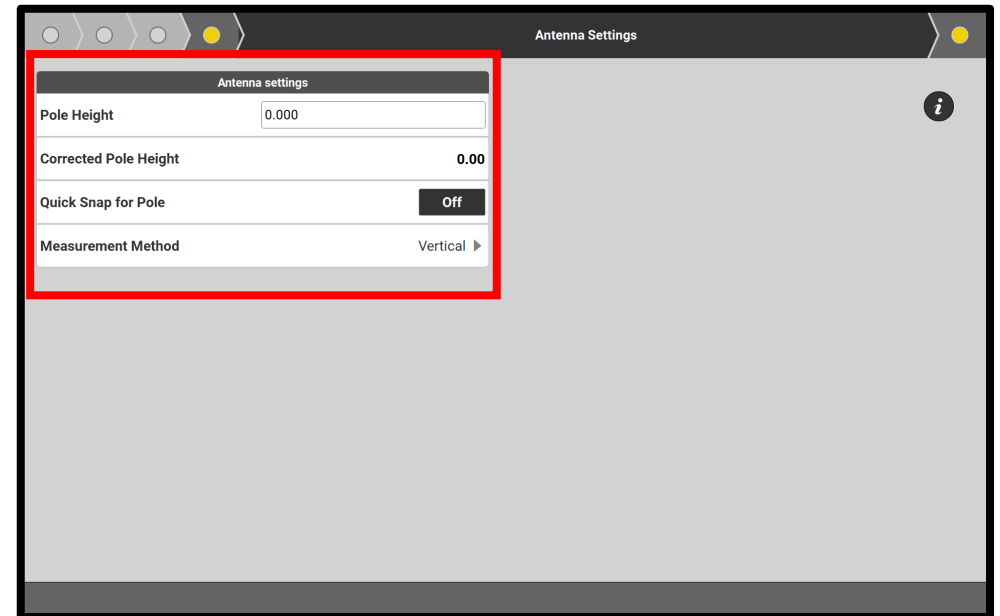
Internal radio settings	
Model	Satel M3-TR489
Channel	4 ▶
Correction Format	RTCM 3.2 MSM3 ▶
Base ID	1



Setting up a Base Station

Antenna Settings

- **Pole Height**: set to 0.0 when on a base post, or 6.56 when on a GPS tripod
- **Quick Snap**: If using a quick snap connector, change to **Yes**
- Press 

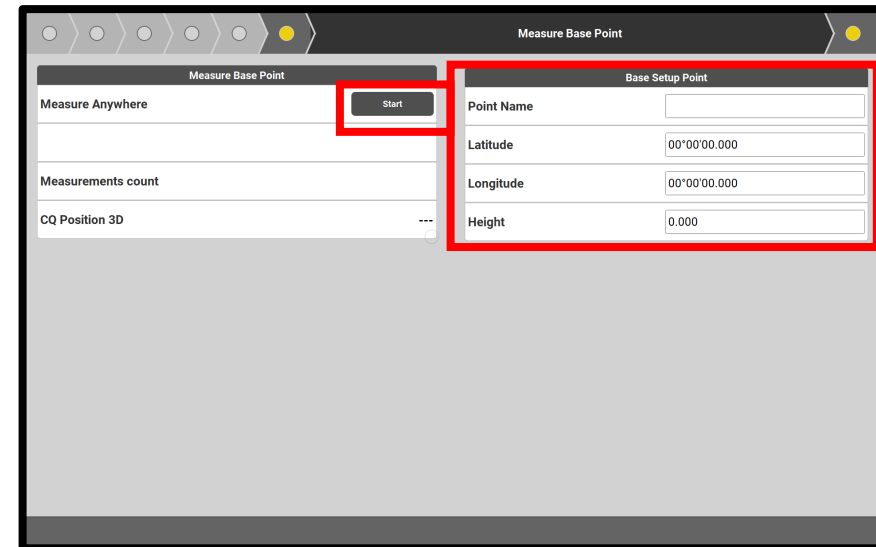
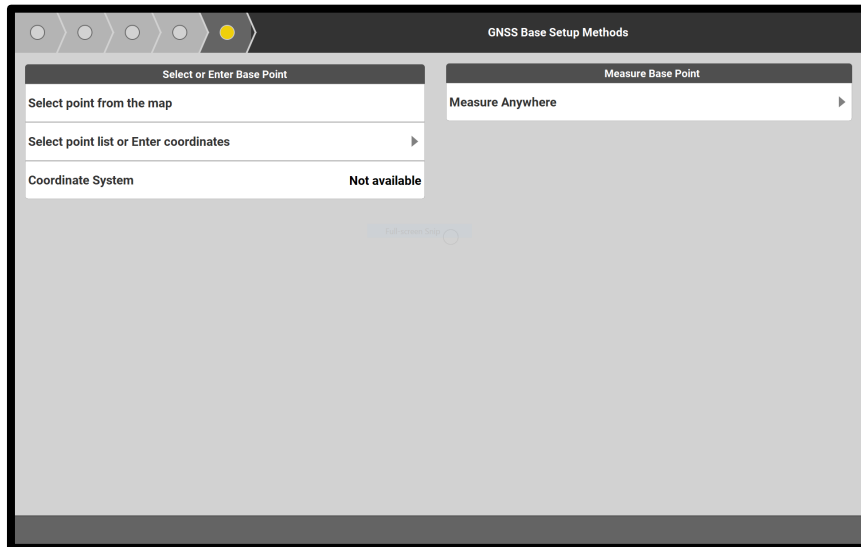


Setting up a Base Station





Base Setup Methods:

- If you have previous point measured, Select from map
- If no previous point, select Measure anywhere

- Press Start to record base position
- Press Stop to stop recording the data
- Enter in the Point Name for the base point



Setting up a Base Station

- Once finished, press 
- Name the new Device Profile
- Press 
- You are now ready to Localize
- Base icon should appear on base station screen 
- Radio should emit waves and display radio channel 

Measure Base Point

Measure Base Point	Base Setup Point
Measure Anywhere <input type="text"/> Start	Point Name <input type="text" value="BASE"/>
Measurements count	Latitude <input type="text" value="33°46'35.279"/>
CQ Position 3D ---	Longitude <input type="text" value="118°00'06.97"/>
	Height <input type="text" value="-36.361"/>

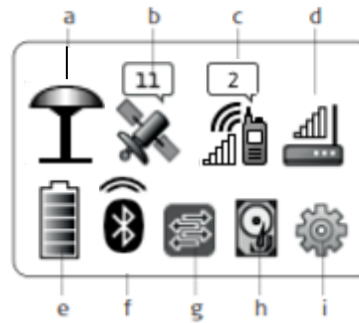
Status Page

Status information	
Profile Name	<input type="text" value="TEST BASE"/>
GPS Mode	RTCM 3.2 MSM3
Radio Channel	4
Correction Format	RTCM 3.2 MSM3
ID	1
Point Name	BASE
Corrected Antenna Height	0.00
E/Lat	33°46'35.27956"N
N/Long	118°00'06.97979"W
Z	-36.36

12



Setting up a Base Station



- a) Position icon
- b) Satellite icon
- c) Radio icon
- d) Modem icon
- e) Battery/Power icon
- f) Bluetooth icon
- g) iCON telematics/Port Summary icon
- h) Memory and logging icon
- i) Settings icon

GP600_003

The menu icons on the display provide additional information related to basic instrument status.

Base Station screen icons

Icon	Description
○	Instrument has not obtained a position.
⊕	<ul style="list-style-type: none"> • Navigated position has been obtained. • Error ≤ 10 m.
⊕	<ul style="list-style-type: none"> • Float position has been obtained. • Error ≤ 0.5 m.
⊕	<ul style="list-style-type: none"> • xRTK position has been obtained. • Error < 0.05 to 0.10 m.
⊕	<ul style="list-style-type: none"> • High accuracy position has been obtained. • Error ≤ 0.05 m.
⊕	iCON gps 60 SmartAntenna is operating as a base .
⊕	BasePilot setup in progress.
⊕	BasePilot setup failed.

