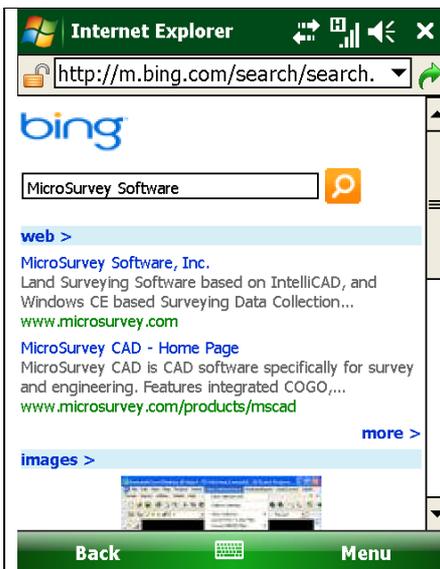# Altus APS3 – Configure Rover for Local Internet RTK Link

You must be using FieldGenius 2010 v4.4.1.1 or EVR 7.2.1.1 or newer.
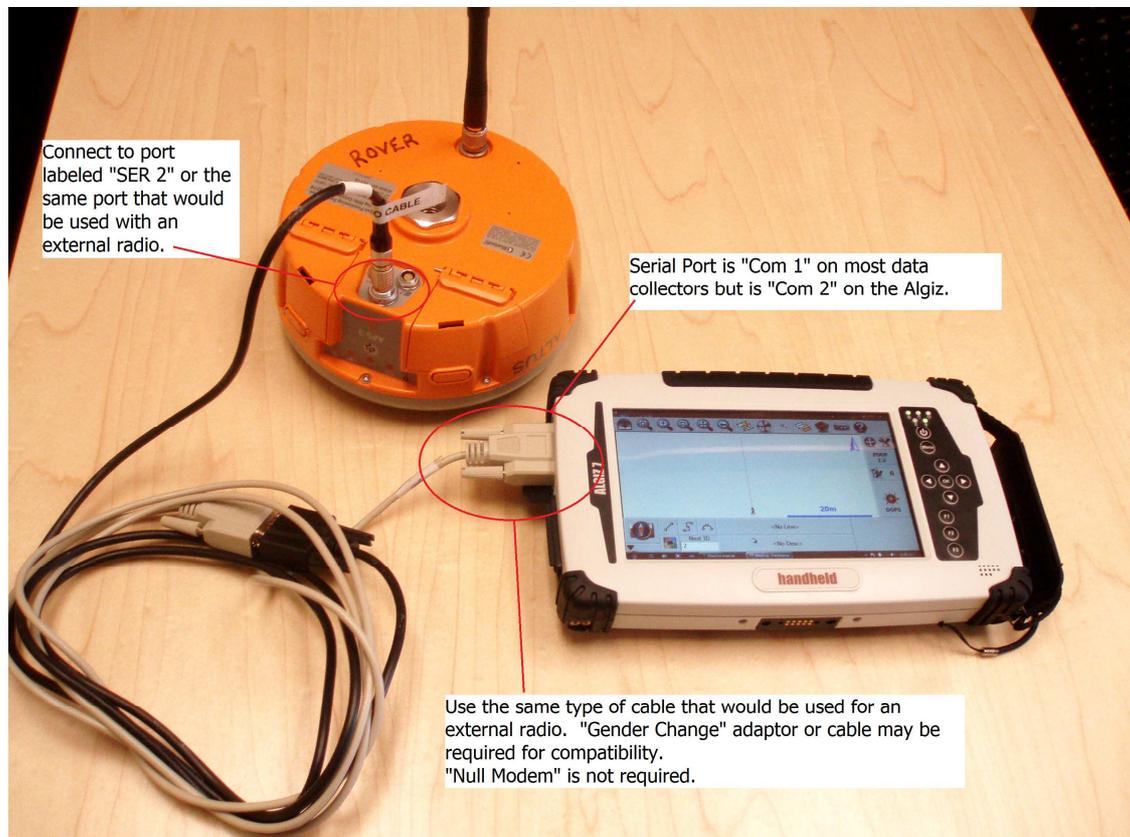This document was written using FieldGenius 2010 v4.4.1.1

To use the "Local Internet" feature you need to arrange to connect your data collector directly to the internet by wireless means.

This can be done by connecting to a Wi-fi hotspot or by using a sim card in the data collector. Follow the steps in your data collector documentation to establish a network connection.

Before starting FieldGenius, confirm that you are "surfing the net" by opening Internet Explorer on your mobile device and entering a search string as shown on the left.
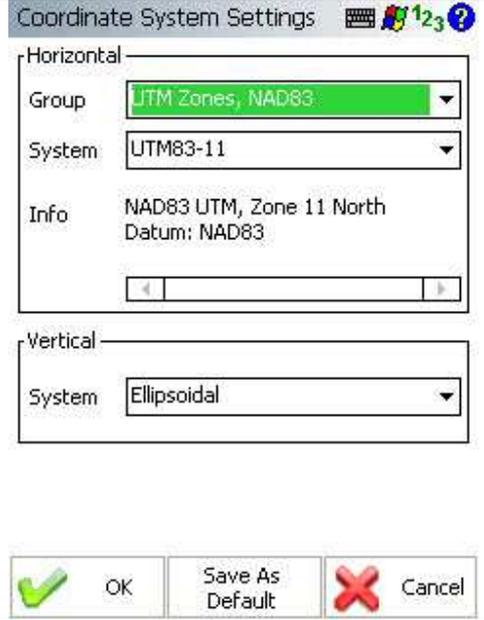
Next, connect your hardware together as shown below.

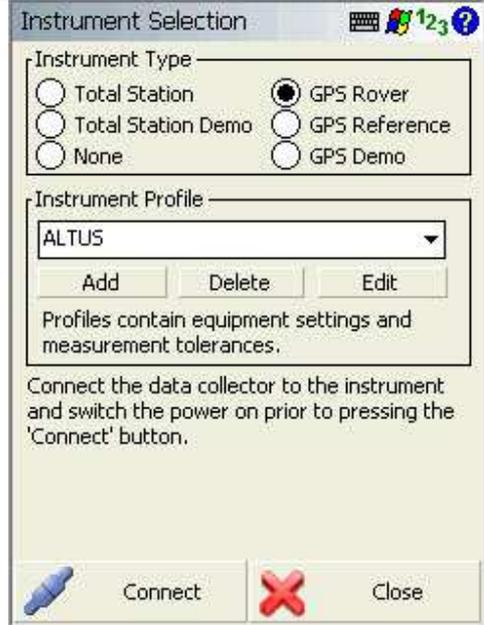Now you are ready to launch FieldGenius or Evidence Recorder.

Connect to port labeled "SER 2" or the same port that would be used with an external radio.

Serial Port is "Com 1" on most data collectors but is "Com 2" on the Algiz.

Use the same type of cable that would be used for an external radio. "Gender Change" adaptor or cable may be required for compatibility.
"Null Modem" is not required.

Coordinate System Settings

Coordinate System Settings

Access this screen by going to Start | Settings | Coordinate Systems.

Choose the datum settings for the area the GPS receiver is in. Note: You usually need to extract the grid (geoid) files for your area before using FieldGenius.

To do this, use the Datum Grid Editor that is available on the FieldGenius CD that was shipped with FieldGenius or download it from our Support Helpdesk.

Instrument Selection Settings

GPS Reference Profile

Access this screen by going to Start | Settings | Instrument Selection.

Add a GPS Rover profile, give it a name and and pick "Save."

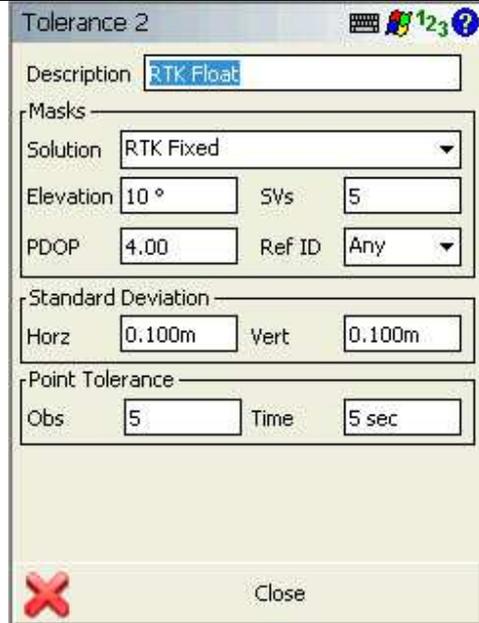Press "Edit" to access the profile settings.

GPS Profile

GPS Profile Settings

In the following menus you will be able to setup or modify your Model and Communication settings, the three various Tolerance Setting Modes, your Antenna Height and the Auto recording feature.

You can return to this menu after each individual selection by tapping the "close" button

To begin editing your profile, tap on the Model and Communication

Model and Communication

Check your Altus Serial Number.
Choose the APS-3 model if your serial number is lower than 20XXX
Choose the APS-3 Rev 2 model if your serial number is higher than 20XXX

Choose Bluetooth connection. If you have not already done so you can initiate a Bluetooth connection search by tapping "Bluetooth Search". This will allow you to find all active devices within connection range.

Chose **"Connect"** to establish your connection. When prompted for a passkey you may leave it blank and pick OK or enter any passkey you may have assigned in the Altus configuration software.

Some data collectors, such as the Algiz, require a passkey.

Once connected it will skip to the instrument settings menu below taking you directly into the "Link Configure Menu"

Tolerance Modes 1-3

Tolerance 2 Description: RTK Float **Masks** Solution: RTK Fixed Elevation: 10 ° SVs: 5 PDOP: 4.00 Ref ID: Any **Standard Deviation** Horz: 0.100m Vert: 0.100m **Point Tolerance** Obs: 5 Time: 5 sec Close	There are three different tolerance modes that can be set. Configure the three tolerance modes based on your needs. Once connected you can switch between them on the GPS Control menu.

Active Tolerance Mode

Select Tolerance ✓ Autonomous RTK Float RTK Fixed Cancel	Under the active tolerance menu you can set the default tolerance mode when you first connect to the rover. Once connected you can switch between them on the GPS Control menu.

Antenna Height

Select the correct antenna model from the list.

You should always confirm the antenna offsets to those published for your receiver.

Select User Defined to enter your own offsets if required.

Correction Link

Configure the Link Device Screen as shown here.

From this menu you can also choose the Message type/Data Format you wish to use such as RTCM, CMR or other.

Press the **Setup** button to set the **Network Settings**

Mobile Settings

The Data Port defines the port that you have connected your cable to on the data collector. It will be Com 1 on most devices but Com 2 on the Algiz.

Choose NTRIP or Network as the Source Type.

All settings in the Data Source Section will be provided by your correction service provider.

Close this dialog and Pick "Connect" when done:

NTRIP Caster Options 🖮 🪟 123 ❓	Pick "Request Source Table" if this is the first time you have connected or select the option to connect to an existing mountpoint if you have connected before.
Request Sourcetable Request Mountpoint 'CMR+' ❌ Cancel	

NTRIP Sourcetable 🖮 🪟 123 ❓	Choose a mountpoint and pick "Select."
Mount Point / Identifier / Format	It is important to select a Mountpoint that is physically close to you in order to obtain a good quality RTK solution.
RTCMDGPS RTCMDGPS RTCM 2.3	Wait while the mountpoint is contacted and communications are established.
RTCMRTK RTCMRTK RTCM 3.0	
CMR+ CMR+ CMR+	**NTRIP Caster** ▮▮▮▮▮▮▮▮▮▮ Selecting mountpoint
✔ Select ❌ Close	

Once you are connected your RTK solution button will cycle from "Autonomous" to "RTK Float" and then "RTK fixed."

You may start measuring.