

# S80G Real time GNSS - Quick guide

## **Getting started :**

Turning on the tablet and slide finger up to show the main screen. There is no password. Wait while it initializes with its GNSS module.

Tap on the 'Cube A' App in the middle of the screen and **then let it go through its intialisation process.**

If outside in view of satellites it will show how many satellites it is receiving.

It will display **DGNSS, Float** or **Fixed** when it is receiving the RTK signal from a CORS network

H:0.020 means the expected horizontal accuracy is 20mm and V: 0.026 is 26mm accuracy. Example below

The **RTK Icon** gives the amount of time from receiving the RTK / DGPS correction signal.

Using the mobile phone internet is will show between 1 and 15 secs. The battery level is to the right of RTK.

On the main front page at the bottom of the screen are the 6 menu tabs. **Project, Device** and **Survey** etc.

A **Project** name will have been created or it can be done in the Project menu in **Project Manager.**

The **Device** menu is where the communication link is established. It is already setup for the S80G.

## **Surveying:**

On the bottom of the screen you will see **Survey.**

In this menu use **Point Survey** to record a point.

Tap on the bottom right **REC teardrop Icon** to record a point at your location. The point is where ever the GPS antenna is located.

Always remember to keep an eye on **H: & V:** at top of screen to make sure you know the **estimated accuracy**

**List of points** are above REC icon - P1, P2, P3 list. This is where you can select, view and edit points.

The down arrow below the REC icon is where you can **set the antenna height** to the ground. If it is on a pole it will be 2m but always double check.

**Setting out a point** is done in the Survey menu by selecting the **Point Stakeout** menu. This will allow you to navigate to a selected point. The point is selected from a list or from the map.

The **Satellite image** is brought on to the screen by clicking the Map with the Red teardrop on the left side of the screen a couple of times.

To **Zoom Out** and away from your current position; click the two foot steps below the map Icon so that a red cross appears. This will allow you to pan around with finger.

To **Export** your recorded points go to the Projects menu

In the main screen. Then open Export Data. Select Point Id, East, North, Height and Code in the list.

**Also tick the box to share when you export.** This will let you email the data to your personal email. The other way to export data is by the USB C cable connected to a PC. Swipe down with your finger from the top of



the 8" tablet screen and you will see Android System – Charging this device via USB. Tap on this message to bring up other options. Now select **File Transfer**.

On your computer open the **Internal shared storage**, then open **StonexCube**, then open the **Export** folder. Your exported CSV will be in this folder.

Other **useful information** when using the CubeA main menus is as follows.

In the **Configure** menu at bottom of screen you will see the following menu tabs

**Coordinate System** is where **Ellipsoid** is set to **GRS80** when working in Australia

**Projection** is set to UTM and it is here that you select a different UTM zone. The Central Meridian for Zone 50 is 117 degrees and for zone 51 it is 123 degrees. This can be auto selected by tapping the icon to the right.

**Geoid** is where a model of mean sea level is selected to change heights from Ellipsoid to AHD. Import the file for your project area. The latest Geoid is Geoid 2020.

**Local Offsets** is can be enabled to adjust the horizontal and vertical to better match the current grid system.

**Display Settings** – **Display point Name** should be selected to show your points on the map screen.

**Record Settings** is where you can set the acceptable tolerance for the survey points that you collect. The points you collect will be called **Topo points**. Normal settings for GIS type accuracy are as follows  
Solution Limit Float 0.25m Horizontal But when it is fixed

HRMS 0.25 which is 25cm - this is just so you don't get the warning message pop up. Always look at the VRMS 0.50 which is 50cm estimated accuracy at the top left of screen before recording a point.

**Auto Point** in the Record Settings menu allows you to create a track log of points using a time interval or a distance interval (labelled record according to Step).

The **Device** menu at bottom of screen

**Working Mode** is where you can check the S80G settings.

Select **Rover** check that your **Phone Network** is selected and settings for receiving NTrip are correct.

Double check that all the Satellite Constellations have been enabled.

Then press **Apply** to ensure that any changes have been implemented.

The **Project** menu at bottom of Screen

As well as Exporting data the **Import Data** menu allows you to load in your own CSV files. You just need to match the header data for the columns.

**Feature Codes** can be created for your own list of codes. Simply create New and call it Exploration or other suitable title and then put in codes for common features such as drill hole collars.

In this menu projects can be created and previous projects opened.

The Cube A software is **exited** by pressing the return button at the bottom of the Tablet.

**Charging** the S80G – Do this at the end of the day using the USB charger with the USB C connection or with a Cigarette lighter USB during the day from the vehicle.

**Tip.** - To maximise the battery life during the day, the On/Off button can be quickly pressed to turn off the screen. When it is pressed again just swipe the screen and you will be back in the software.

**NTrip Access Points** when using Auscors can be found on <https://portal.ga.gov.au/persona/pa>

Mudgee has a mount point called **MUDG00AUS0** In WA there is Collie, Kattanning, Balingup, Nyabing, Wagin and Ravensthorpe and **MURK00AUS0** near Northam.

Note that the current data link signal has to be stopped before a mount point can be changed.