Balfour Beatty
Rail

Wi-Fi LaserSweep™ Structure/Platform Surveys

Health and Safety

The unit contains a class 2 visible laser (650nm <1mW) which has no risk to skin and low risk to the eyes.

When the laser is active the operator should take care not to direct the beam into the eye line of their self or other workers.

Assembly

Using the locking handles the telescopic arm is extended and fastened into the head and the foot.

The arm is then secured onto the rails by the spring-operated plunger in the foot.

- To open the shutter slide, twist the shutter knob located at the top of the head unit to loosen.
- Slide to the opposite side and secure the friction washer back in place before tightening
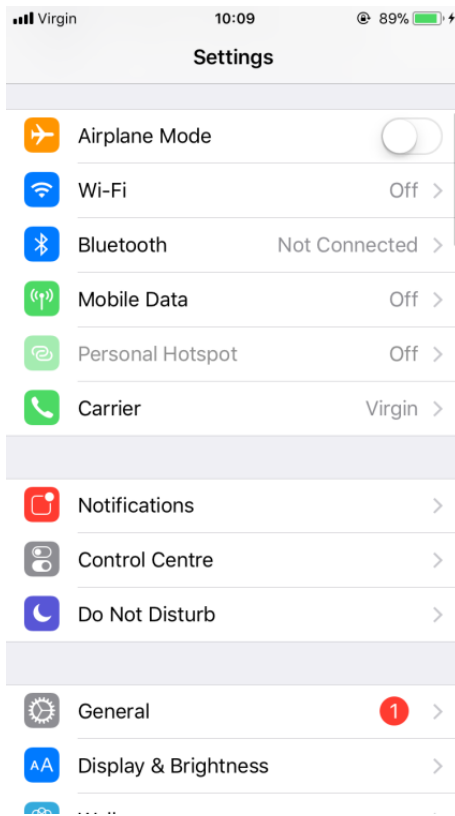- Do not rotate the mirror by hand.
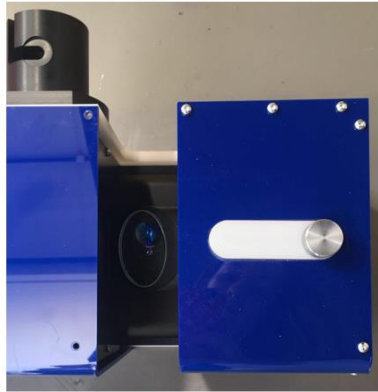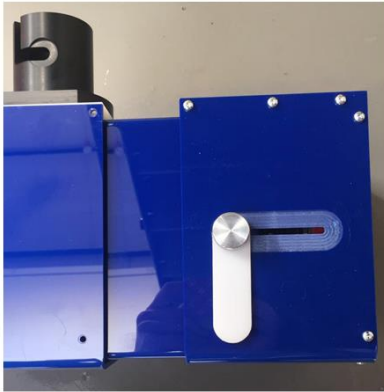
- Switch the LaserSweep on, a blue LED will light up once done so.
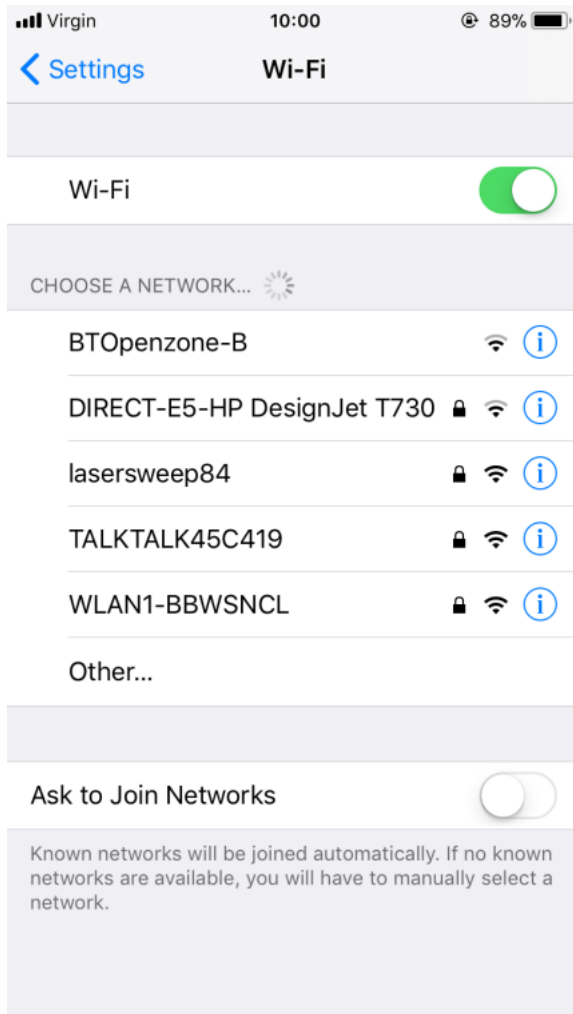- The unit is ready to be connected for use

Establishing a Wi-Fi connection

- Locate the settings button on the mobile device and navigate to the Wi-Fi tab

Step Two

- The respective LaserSweep should be listed in the available Wi-Fi networks to connect

••ll Virgin	10:00	🔵 89% ▪️
‹ Settings	**Wi-Fi**	

Wi-Fi 🟢

CHOOSE A NETWORK... 🔄

BTOpenzone-B	📶 ⓘ
DIRECT-E5-HP DesignJet T730	🔒 📶 ⓘ
lasersweep84	🔒 📶 ⓘ
TALKTALK45C419	🔒 📶 ⓘ
WLAN1-BBWSNCL	🔒 📶 ⓘ
Other...	

Ask to Join Networks ⚪

Known networks will be joined automatically. If no known networks are available, you will have to manually select a network.

Step Three

- The network will require a password to be entered. The password is the same as the Wi-Fi connection name.

.ıll Virgin   10:00   @ 89% ▇

Joining "lasersweep84"...

Cancel   **Enter Password**   Join

Password   ●●●●●●●●●●

You can also access this Wi-Fi network by bringing your iPhone near any iPhone, iPad or Mac that has connected to this network and has you in its contacts.

Step Four

- Open the web browser on the device and type '**http://lasersweep**' into the URL bar.
- In case a Windows device is used to connect with the LaserSweep then the respective IP address needs to be entered i.e. 192.168.100/1
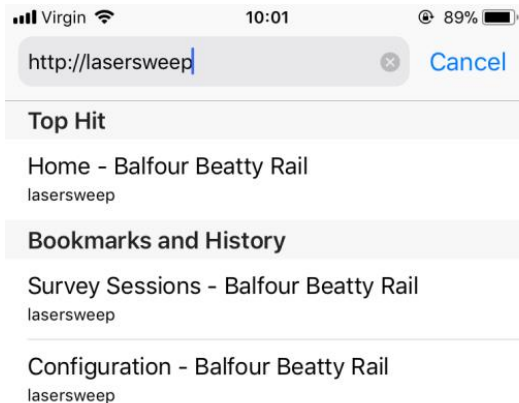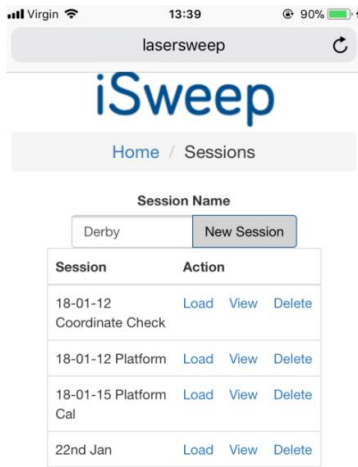

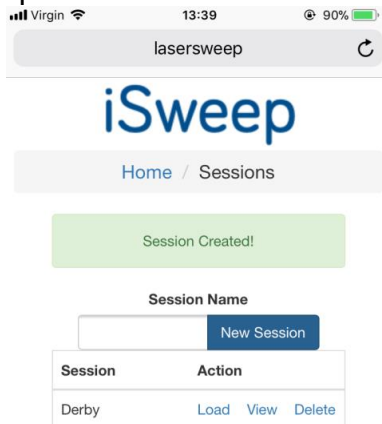- This should display the iSweep home page
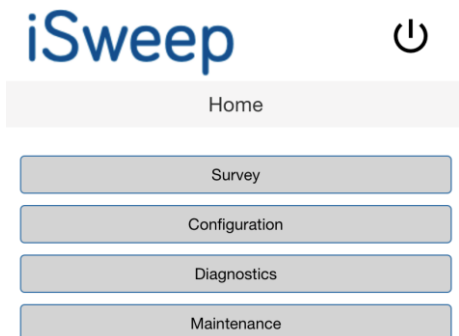
Step Five – **Operation**

- Select the Survey tab this should display all the surveys

- To create a new survey, enter a **'Session Name'** into the box displayed at the top of the screen and select '**New Session**'.

- A confirmation message will be displayed indicating the session was successfully created

- After the session has been created, select '**Load**'.
- Before starting the survey, a tab will be displayed where information such as ELR, Start Distance and Track ID can be set.

Home / Survey / Structure Info

Start Distance

Miles	Chains	Yards
10	12	5

Measurement Interval (m)

5

Site Details

ELR	Track ID
Elr	1100

Survey Details

Survey Date

3 Jan 2019

Orientation

Orientation: Back to High Mileage

Start Structure Survey   Start Platform Survey

- Once completed, select '**Start Structure Survey**'

- The profile page loads up and the "**cant**" value is measured and displayed in mm.

Home / Survey / Derby

BTLM

Cant (mm)

0

| Update | Reset | Measure |

| <<< | << | < |
| > | >> | >>> |

| Scan Point | Auto Scan |
| Pause | Add Datum |
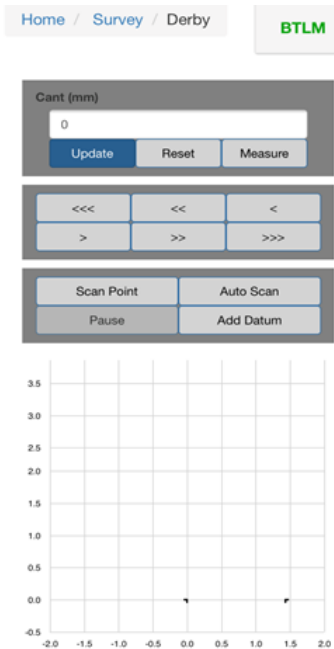
# Step Eight – Modes of Operation

- **Scan point** – Takes an individual reading wherever the laser beam is manually positioned.

<<<	Moves the laser beam backwards in large steps.
>>>	Moves the laser beam forwards in large steps.
<<	Moves the laser beam backwards in medium steps.
>>	Moves the laser beam forwards in medium steps.
<	Moves the laser beam backwards in small steps.
>	Moves the laser beam forwards in small steps.

- **Auto Scan** – takes automatic readings at set intervals
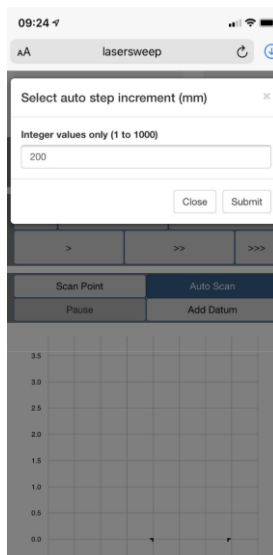
Once a profile has been scanned additional details such as radius can be added along with any comments that can be used to identify the profile during post processing.
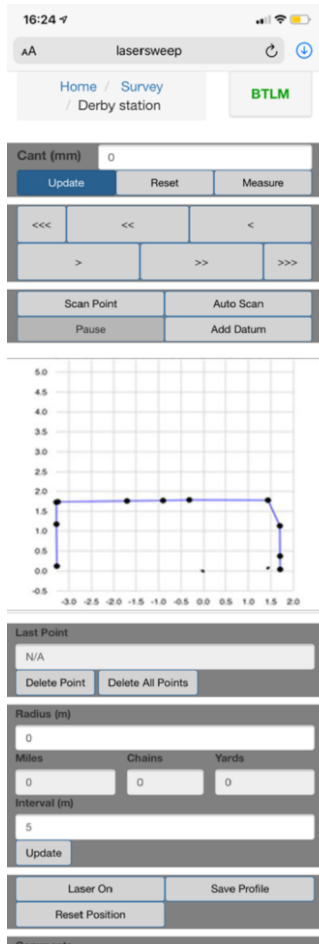
- Once **"Save Profile"** is selected then the LaserSweep automatically updates the chainage and uploads the new profile to start scanning

Platform Surveys

The new design of the adaptor is profiled such that the LaserSweep™ software automatically calculates the platform edge coordinate using a single point measurement on the box section of the adapter.

- After creating and loading a Platform survey
- Select the '**Scan Platform**' option
- Place the platform adapter on the edge of the platform.
- Use the incremental arrows to position the laser beam in the red zone of the adapter.
- Select '**Scan Platform**'; Platform edge coordinates are displayed straightaway.
- If required; other platform features such as coping depth, Z1 and Z2 upright measurements can be manually scanned.
- If the other platform features are not required, then the profile can be saved without them.
- In order to download the profiles or generate the TEF platform gauging spreadsheet; Go to the main profile; Select "**View**" and the select "**Download Profiles**" and "**Platform Report**" .
- For details on Datum Plate functionality please refer to the main manual.

iSweep - Turn OFF Procedure

Once all the surveys have been completed and download, to TURN OFF the unit the following process needs to be followed.

- Navigate to the main iSweep home page
- Select the software "Power OFF" icon / button as shown below

- This would display a "Battery Level NOT CONNECTED" message which confirms that the software is safely turned off internally and all profiles are saved to the internal memory.

- Now, it is safe to TURN OFF the SWITCH on the main unit.

For information on purchasing, hires and demonstrations please contact:

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