# INTRODUCTION

This guide details how to configure the LD8 receiver to simulate the following FMEA trial requirements: -

1. Loss of Differential Corrections
2. Total Loss of GNSS Satellites

LD8 configuration described within this guide is performed using Quantum version 6. Further information on how to connect to the LD8 receiver using the Quantum can be found at the following link:

To access the LD8 receiver management menu within Quantum, perform the following steps: In the Quantum home screen enter the configuration menu by selecting the 'three lines' icon, followed by the 'Settings Cog':
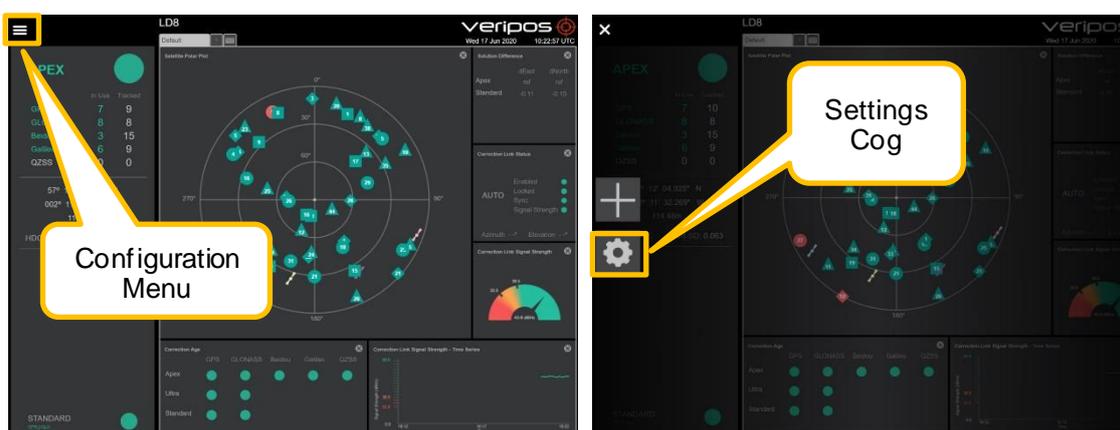
Then select 'System Configuration' and when the 'Receiver Management- Overview' sub menu is displayed, select. the 'Receiver Management' menu option and then select 'Edit'
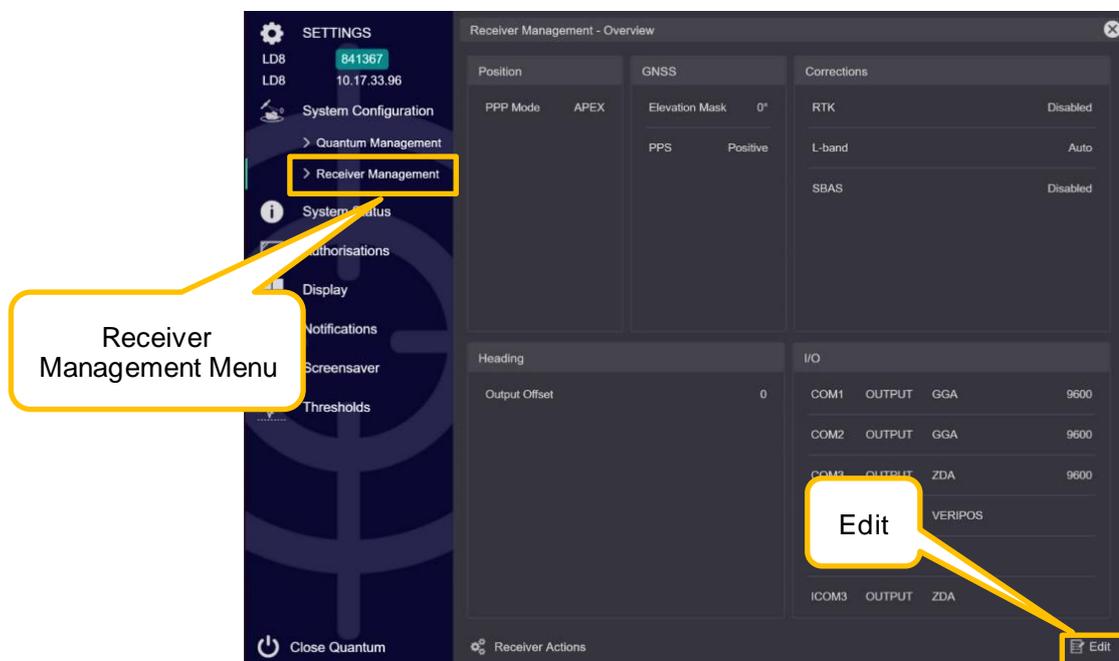
LD8 FMEA TRIAL PROCEDURE – LOSS OF CORRECTIONS

Before starting the trial, record the L-band settings by selecting the 'Correction' tab on the menu and note down the current settings.

To simulate the loss of L-band:

1. Select 'Manual' mode on the 'Mode' option of the Corrections tab of the receiver management menu.
2. Select 'User' mode on the 'Beam types' option.
3. This will now allow for an input of a user beam frequency. Please assign a suitable name to the user beam (ie FMEA Test) and enter the frequency value: 1539.000Mhz. Then select 'Apply' at the bottom right of the screen.
4. The LD8 will no longer be locked to an L-band beam.
5. DGNSS solutions (Standard) are valid for 120 seconds and PPP Solutions (APEX, Ultra) are valid for 360 seconds, so allow for these solutions to timeout in DP.
6. Once test is complete, set the L-band configuration to its previous configuration as recorded previously and select 'Apply'.
7. Wait until the PPP solution is fully restored before conducting the next part of the Trial.

LD8 FMEA TRIAL PROCEDURE – LOSS OF POSITION

To simulate the loss of GNSS:

No configuration changes are required, the procedure is straightforward:

1. On the rear of the LD8 unit disconnect the 'Ant 1' SMA connector from the Interface Panel:
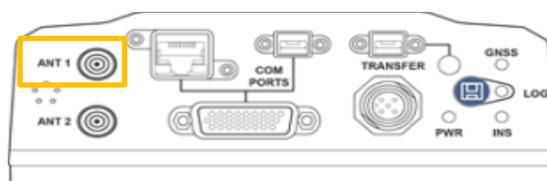
2. The loss of position will be almost instantly detected by DP.

3. After the failure reconnect the 'Ant 1' connector to the LD8 unit and allow time for the position to recalculate. A Standard calculation will take around 120 seconds, but PPP may take considerably longer (up to 30 minutes for convergence.