

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

The LD8 WebUI terminal, accessed by navigating to **Tools > Terminal**, can send the commands detailed below to the LD8. Users can find further information on connecting to the LD8 receiver using the WebUI within the [LD8 Setup Quick Guide](#).

Procedure - Loss of corrections

Make a note of the current L-band settings of the LD8 before starting the trial; enter the following command into the WebUI terminal:

```
LOG L BANDTRACKSTAT
```

The terminal will display a response similar to the following:

```
LBANDTRACKSTAT WCOM1_30 0 50.5 FINESTEERING 2062 457753.000 0a000020 29e3 15441
3
'IOR' 1545865000 1200 974c 00c2 0 -91.416 43.052 3.6091 15658.910 298176 2330 746
38166528 290966 0.0000
'25E' 1545825000 1200 974c 00c2 0 -223.267 43.704 3.8057 78985.820 1504384 5 5 192561152
515 0.0000
'AORW' 1545845000 1200 974c 00c2 0 -280.645 40.858 2.8379 78986.523 1504448 607 571
192569344 68081 0.0015
```

The above example shows the LD8 in auto beam mode, simultaneously tracking multiple L-band beams. Only one beam will be displayed within the terminal output when tracking L-band in manual mode. Make a note of the tracking mode and the selected beams.

To simulate the loss of L-band:

1. Enter the following command into the WebUI terminal:

```
ASSIGNLBANDBEAM IDLE
```

2. The LD8 will no longer be locked to an L-band beam.
3. DGNSS solutions (Standard) are valid for 120 seconds, and PPP Solutions (Apex, Ultra) are valid for 360 seconds, so allow these to timeout in DP.
4. Once the test is complete, enter either of the following commands within the WebUI:

```
ASSIGNLBANDBEAM AUTO (sets to Auto beam)
```

or

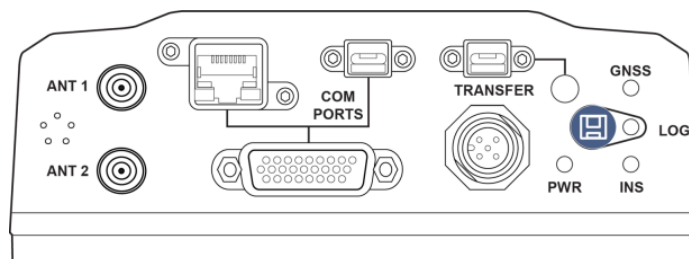
```
ASSIGNLBANDBEAM MANUAL BEAMNAME (if using manual beam mode, replace 'BEAMNAME' with previously noted beam)
```

5. Wait for the PPP solution to re-converge before conducting the next part of the trial.

Procedure - Loss of position

To simulate the loss of position:

1. On the rear of the LD8 unit, disconnect the 'Ant 1' SMA connector from the Interface Panel:



2. DP will almost instantly detect the loss of position.
3. After the simulated failure, reconnect the 'Ant 1' connector to the LD8 unit and allow time for the position to recalculate. A DGNSS calculation will take around 120 seconds, but a PPP calculation will take up to 30 minutes to fully converge.

Contact Hexagon | Veripos

For further guidance, download the *Quantum User Manual* from www.veripos.com

Alternatively, for expert 24/7 advice via phone or email, raise a request for assistance via support@veripos.com.