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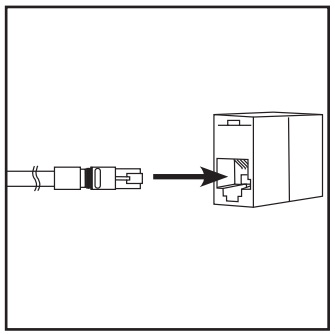
xNAV Quick Start Guide

STEP 1

Installing an xNAV

Use 90° brackets or alternative mounting solution e.g. RT-Strut, to secure xNAV rigidly to vehicle.



Connect Ethernet to the J3 Ethernet port cross coupler.

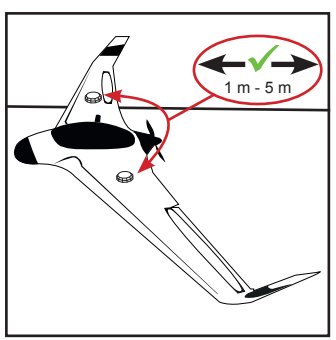
Align red marks on user cable and socket, then push to connect. Apply power (10-31 V d.c).

Green power LED light will appear.

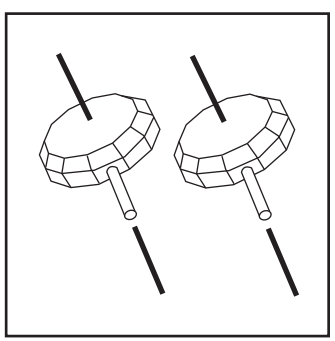
LED States	
PWR	Green when power applied to system. Orange when traffic present on Ethernet.
STATUS	Flashing red while searching for GNSS lock. Solid red when ready for initialisation. Orange after initialisation, outputs not yet real-time. Green when INS running and outputting in real-time.
GNSS	Flashing red while searching for heading lock. Solid red/orange/green for differential/ floating/ integer heading lock.

STEP 2

Positioning the antennas



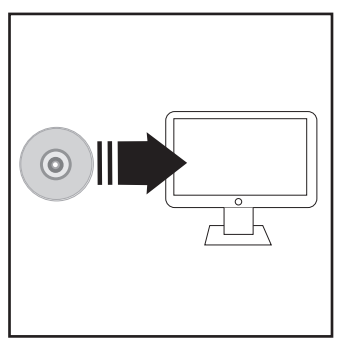
Antenna separation should be between 1 m and 5 m apart. Place the GNSS antennas on a metal parallel surface. Make sure the antennas have a ground plane to prevent GPS signal reflection.



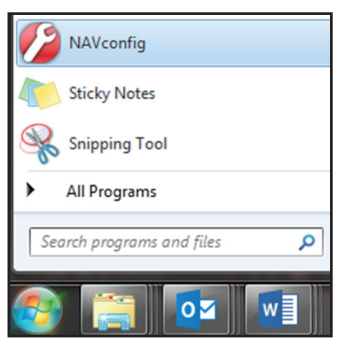
Ensure the orientation of the two antennas is the same.

STEP 3

Configuring an xNAV



Download and install software from link or CD provided. If you have trouble downloading, please contact our support team for more information.



Once installed go to;
Start > All Programs > OxTS > NAVconfig
Allow permission for NAVconfig to use network. This can be changed in windows Firewall.

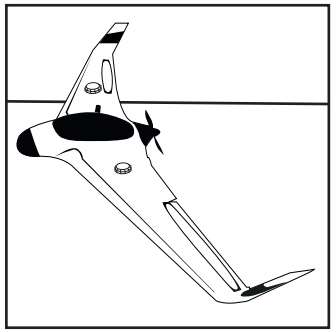
Follow steps in NAVconfig:

1. **Product Selection:** Select relevant xNAV model.
2. **Read Configurations:** Use default settings.
3. **Orientation:** Set the **Y** and **Z axis** points to match your installation.
4. **Primary Antenna:** Measure from the xNAV's measurement points to the primary antenna along the three vehicle axes and enter the measurements accurately.
5. **Secondary Antenna:** Select 'Enable Secondary Antenna' and enter the accurate measurements between the antennas. Measure as accurately as possible but below 5 cm. Static Initialisation can be enabled at this stage.
6. **Wheel Configuration:** Configure for land vehicles only.
7. **Options:** Use default settings.
8. **Commit:** Make sure xNAV is connected and turned on. Select the appropriate IP address and click commit.
9. **Save/Finish:** The data will be stored internally on the xNAV once committed but use the option to store locally if necessary.

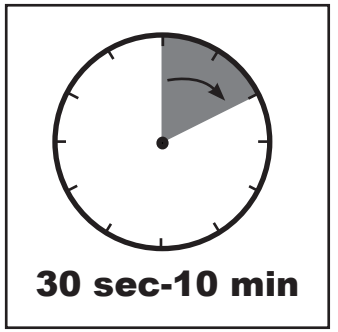
xNAV Quick Start Guide

STEP 4

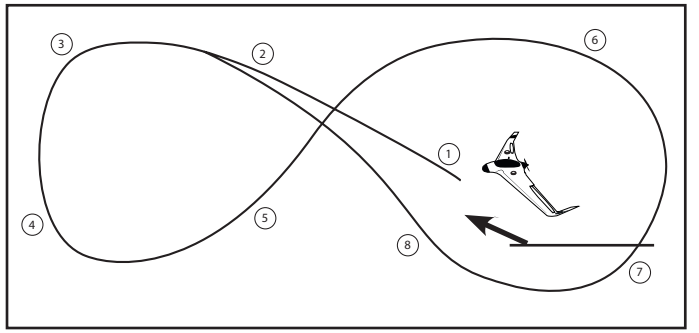
Initialisation and warming up



In aircraft where static initialisation is used, allow aerial vehicle to remain stationary until system initialises.



Static initialisation will take approximately 30 sec-10 mins depending on antenna separation and measurement accuracy. The time can be reduced by optimising the configuration for dual antenna setup.



Aerial vehicles should be flown in figures of eight with some acceleration and braking and with the addition of climbs and dives. After 3-5 mins system will be ready for use.

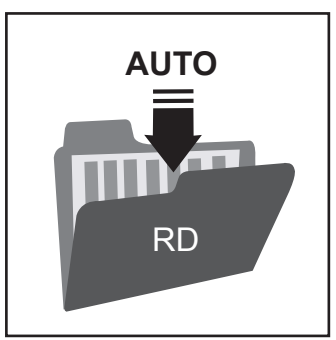
Once warmed up, system should be left on. Turning it off will require the warm up process to be repeated.

Note:
The system can also be initialised by speed.

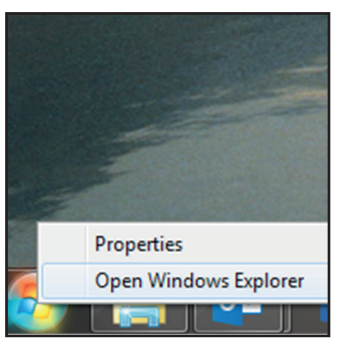
To do so, drive above the initialisation speed (set in NAVconfig) in a straight line.

STEP 5

Downloading and viewing data

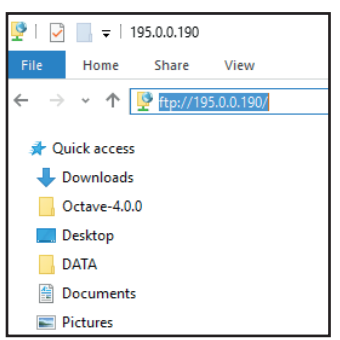


While the xNAV is operating, it saves all data internally to a file with suffix .RD.

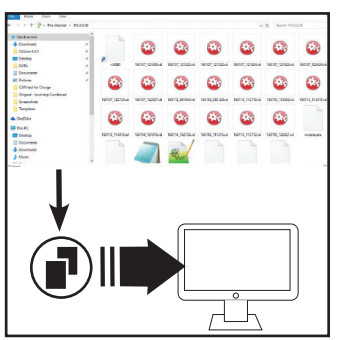


Open Windows Explorer.

RD files can be accessed via FTP either using an FTP client or the Windows Explorer file management tool.



In the address bar, type “195.0.0.nn” where nn are the last two digits of the serial number.



The files on the xNAV will then be listed and the RD files can be copied to your PC for processing.

Complete.

Support:
For further information, please check the xNAV manual.

If you encounter any issues during installation, please contact our OxTS support team via the website.