

# Navtech Systems GPS Devices

## CamNav



### GPS encoding for Audio recording

By taking GPS positional data from its internal GPS receiver, CamNav 'attaches' this data to video footage via a single lead into the mic input of a video recorder, audio recorder or similar device with audio input, digital or analogue.

CamNav encodes GPS NMEA RS232 data into FSK audio tones compatible with audio channel recording.



CamNav OSD (On-Screen Display) Module screenshot,

CamNav (black box) with camcorder and GPS antenna,



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GPS data includes an accurate position reading to less than 15 metres anywhere on the planet, along with **Universal Time Coordinated** time, allowing you to note exactly where and when the footage was shot. This data remains with the recorded video for its lifetime and is accessed simply by playing back through the CamNav unit.

CamNav is supplied with its own high specification GPS receiver, GPS antenna, data and audio modulation leads for encoding and decoding. An RS 232 output port allows direct interfacing to a PC or other serial data devices. For recording other RS232 data, an auxiliary port allows for input of ASCII messages at 4800 baud to be similarly recorded.

Please note: this is a low resolution

CamNav integrates seamlessly with many mapping systems - Google Earth, Google Maps etc., for example to plot the position of the footage onto a PC based map.



CamNav can be used in both recording and live transmission\* applications

\* Further CamNav unit required at receiving end of transmission

**Specification:**

- System**            Bi-phase data modulation 4800 baud NMEA 0183/ASCII data messages
- GPS**                12 channel all in view fully dynamic GPS receiver
- Accuracy**        Better than 15 metres RMS unaided, 3metres DGPS.
- Power**             ac/dc PSU or 9 volts PP3 battery, 4 hours continuous use
- Size**                145 X 82 X 32 – robust extruded aluminium case
- Data output**     RS232 NMEA 0183 as input from GPS  
GPS data - real time  
1 PPS from internal GPS receiver – real time
- Connections**    Modulated data input/output - Phono (RCA jack)  
RS232 output, GPS data, 1PPS, etc - 9 way "D" socket  
2mm - DC power jack
- Monitoring**     GPS fix  
Sync Lock  
Bit lock

**1PPS**



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