



GPS Engine For APRS/DPRS

The information in this document relates to GPS units modified and supplied by D-Star Northants. Currently the only supported unit is based on the Motorola Oncore12. Although an older model of GPS, tracking up to 12 channels, the NEMA output is compatible with both newer Icom D-Star radios (running DPRS) and older Analogue radios from Kenwood (running APRS).

These units are designed to run from 9v up to 15v they have a true RS232 output and will send the following NEMA strings @ 4800baud.

\$GPGGA, \$GPGLL, \$GPGSA, \$GPGSV, \$GPRMC, \$GPVTG & \$GPZDA

The unit has been tested on the Kenwood range and has found to work very well, We have also tested the unit against the New Icom D-Star radios and performance here is good as well.

Connections

- Power - Fuse the Red lead with a 2 amp fuse, and connect to a permanent or ignition feed. Connect the Black lead to earth.
- Data - The RS232 NEMA string is available on the RJ-11 connector
- Antenna - The antenna must be connected to the BNC connector. Take care when mounting the antenna that it has a good sky view, with no obstruction from metal part etc. Also check that the windscreen does not have a metal film in it (usually Gold). Normally mounting in the lower corner of the windscreen is on the left or right-hand side is preferred, although mounting on the dash with a similar sky view is acceptable.

6way RJ connector

View from rear of the cable connector

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- 1 – Ground Pin 5 (9 pin RS232 female)
- 2 – +ve switch
- 3 – nc
- 4 – nc
- 5 – RS232 Pin 2 (9 pin RS232 female)Data Out (TX)
- 6 – RS232 Pin 3 (9 pin RS232 female)Data In (RX)