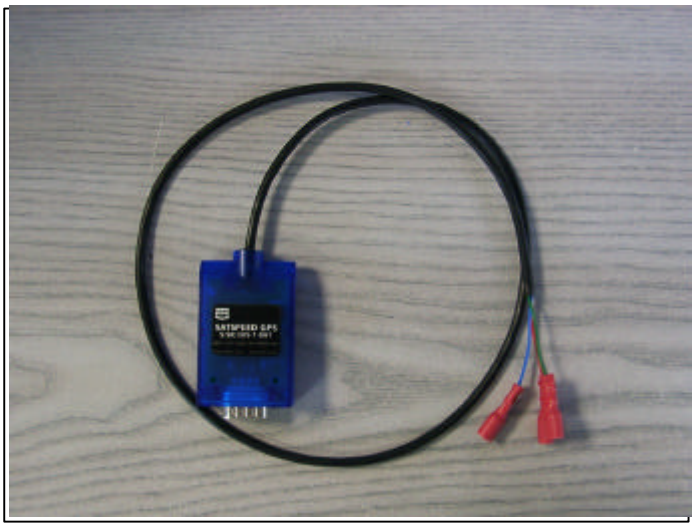
Part No.	Description	Qty
S/SR/385-1-001	Satspeed Interface	1
S/CBL/TIE/001	Cable Tie	25



Application

The Satspeed Interface converts GPS data to a pulse signal compatible with a radar sensor. It is suitable for any instrument that cannot accept a GPS input directly, but which uses a pulse input for the forward speed signal.

Input: Any GPS receiver that outputs an NMEA VTG message via serial RS232, 9-way D connector.
1Hz – 5Hz ; 4800, 9600 or 19200 baud,

Output: 128.16 pulses/metre (3.255 pulses/inch)
0.0078 metres/pulse (0.307 inches/pulse)

Limitation

This unit should not be fitted in situations where speed measurement <1km/hr is required, or there is consistent poor quality GPS reception.

Installation

Connect to the system junction box / Terminator, Forward Speed input terminals, as for a radar sensor i.e.

Wire Colour	Function
Red	+V (10 – 30V supply)
Blue	0V
Green	Signal
Yellow	Antenna Power Supply

The 9-way D connector (pin 9) also provides a power supply (Vss) for the GPS antenna/receiver, fed through the yellow wire. The 'RDS GPS-16 Satspeed' antenna/receiver can use this power supply.

Ensure that the GPS antenna/receiver is wired to accept a voltage supply on pin 9 of the D connector. Connect the yellow wire together with the red wire to a +V supply.

Pin Out	Function
1	-
2	Rx
3	Tx
4	-
5	0V
6	-
7	-
8	-
9	Vss (10 –30V)

Calibration

Most instruments will require a Speed Sensor Factor ('SSF') of **0.0078** (metres/pulse) as for a TGSS radar sensor.

Depending on the instrument and software, this will either be a simple preset option for a Radar Sensor, or otherwise you may need to manually programme the factor. If unsure how to programme the factor, please refer to the calibration manual for the instrument in question.

*NOTE 1: For accuracy, some instruments with 4-digit displays are best programmed with the factor in inches i.e **0.307** (inches/pulse).*

*NOTE 2: If the speed reading is found to be half what it should be, the likely reason is because certain (earlier specification) instruments require a SSF of **0.0156** (metres per **2** pulses) for a radar sensor.*

Operation

The unit will automatically find the baud rate and depending on GPS reception status, provide a forward speed signal on power up.

NOTE: The forward speed reading will default to zero below 1km/hr.

Status LEDs

There are two LED's indicating the unit's status as follows,

LED 1	**LED 2**	**Unit Status**
Off	Off	No power
Fast Flash	Off	Power but no GPS signal (No forward speed reading)
Slow Flash	Flash*	Power + Standalone GPS (should result in forward speed reading)
On	Flash*	Power + Differential GPS (optimal performance)

* Flashes @ VTG message frequency e.g. 1Hz or 5Hz.