1. TSS1 Format

Format TSS1 consists of five fields and contains 27 American Standard Code for Information Interchange (ASCII) characters. Each record begins with a start character and ends with the two-character carriage-return line-feed sequence. All fields contain measurements in real-world units - POS MV supplies acceleration measurements in ASCII coded hexadecimal values and heave, roll and pitch as ASCII coded decimal values. You can use the POS MV Controller program to change the sense of the roll, pitch and heave outputs.

POS MV supplies information in the following format:

XXAAAASMHHHHQMRRRRSMPPPP<CRLF>

Table 22: TSS1 Output Format

Field	Definition	Value	Units (If Applicable)
:	Start of packet character	3A hex	ASCII
XX	Horizontal acceleration	0 to +9.81 (3.83)	cm/s^2
AAAA	Vertical acceleration	0 to +40.96 (0.0625)	cm/s^2
S	Space character	20 hex	ASCII
MHHHH	Heave	-99 to +99 (1 cm)	m

Field	Definition	Value	Units (If Applicable)
Q	Status flag	U = Unaided Mode - Settled Condition u = Unaided Mode - Settling G = GPS Aided Mode - Settled Condition g = GPS Aided Mode - Settling H = Heading Aided Mode - Settled Condition h = Heading Aided Mode - Settling F = Full Aided Mode - Settled Condition f = Full Aided Mode - Settling	
MRRRR	Roll	-90 to +90 (0.01)	Degrees
MPPPP	Pitch	-90 to +90 (0.01)	Degrees
<CRLF>	Carriage return & line feed	0D hex and 0A hex	ASCII

M = space if positive or minus if negative. You can use the POS MV Controller program to change the sense of the roll, pitch and heave outputs.

POS MV sends records using the TSS1 format at an update rate from one to 200 Hz. It updates the TOV at the same rate. The recommended minimum baud rate for use with this format is 9600 baud at 25 Hz.

2. Simrad EM1000 Format

You can use this format with the Simrad EM1000 multibeam sonar. You can use the POS MV Controller program to select the TSS or the Tate-Bryant convention of rotations for the attitude measurement.