

GPS Speedo w/ odometer

REAR VIEW OF

P: 847-752-2700 info@livorsi.com

Installation Instructions model # ESS120

WARNING:

Improper installation may damage the instrument and/or cause injury to the installer. If you have installation questions, please concact Livorsi Marine.

www.livorsi.com

Disconnect the battery cables before installing the instrument. Check for obstructions behind the dash panel such as wires and hoses before cutting the mounting hole for the instrument.

Installation:

Secure the instrument into dashboard with mounting "U" clamp, lock washers and hex nuts. Position instrument in dash board prior to tightening clamp nunts to recommended torque. Maximum recommended tightening torque for all hardware: 6 lb-in. Caution: Over tightening mounting hardware may damage the instrument.





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Calibration Instructions

1. Determine expected pulses per mile of speedometer signal.

PULSES PER MILE =

AXLE RATIO X TIRE REVS/MILE (NOTE 2) X NUMBER OF PULSES/REV OF PULSE GENERATOR

- Ex. AXLE RATIO = 3.9:1 TIRE REVS/MILE = 491 PULSES/REV OF PULSE GENRATOR = 16 PULSES PER MILE= 3.9 X 491 X 16 = 30638.4
- 2. Determine N in the expression:



- 3. Round N to the nearest whole number (Example 825.536 to 826)
- 4. Close all switches (See switch setting detail).
- Subtract largest possible number in switch table from N which does not result in a negative remainder. Table number = 512.....OPEN SWITCH 3 Example: 826 (N) - 512 (Table number) = 314 (Remainder)

= Hertz @ 60 MPH

- 6. Repeat step 5 using the remainder until the result is zero.
- 7. Remainder from step 5 = 314, table number = 256.....OPEN SWITCH 4
- 8. Remainder from step 7 = 58, table number = 32.....OPEN SWITCH 7
- 9. Remainder from step 8 = 26, table number = 16.....OPEN SWITCH 8
- 10. Remainder from step 9 = 10, table number = 8.....OPEN SWITCH 9
- 11. Remainder from step 10 = 2, table number = 2.....OPEN SWITCH 11
- 12. Remainder equals zero. Switch code is 3, 4, 7, 8, 9, 11.
- 13. End of calibration check.
- 14. Calibration check: PULSES PER MILE

60

PULSES PER MILE 57.93

= Hertz @ 100 km/h

NOTES:

1. Switch code is only read during speedometer power up. Changes to the switch code while power is applied will have no effect until power is removed and reapplied.

2. Contact tire manufacturer for tire revolutions per mile.

SWITCH TABLE	
Switch Position	Table Number
1	2048
2	1024
3	512
4	256
5	128
6	64
7	32
8	16
9	8
10	4
11	2
12	1

