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Model # DGPS200
Installation Instructions

The Livorsi 3 3/8" GPS memory speedometer (U.S. Patent # 6353781) also includes a voltmeter, compass and a configurable tachometer display. A momentary open toggle switch (1/2" hole diameter) is supplied with the unit for toggling through the different display modes.

It is imperative that the Livorsi speedo is properly grounded at the same EXACT location as your existing GPS or with the GPS Reciever supplied by us. You must locate the NMEA output from your GPS (orange wire on your reciever) and connect this to the orange wire from the speedo. This is how the speedo gets its information. You will have to contact the GPS manufacturer if you have any questions about the
connector. The gray wire is used for the tachometer function. If you do not want to use the digital tach, leave the gray wire disconnected.

The GPS Antenna is to be affixed by silicone or 2 sided tape and should be removable in case battery goes dead. There is an internal battery in some older antennas that holds the memory and has a shelf life of 3 to 5 years. Antenna must be sent back to the factory for replacement.

There are 4 switches "ganged" together on the back of the circuit board. Access is through the top hole on the back of the gauge housing. One switch is for determining the display modes available to display on the LCD display, another switch for determining the number of active digits and the other two switches are used for determining if you want the tach to be used on a 4, 6, 8-cylinder, or outboard engine.

The following is for the switch 1 in the off (down) position. When power is applied, the voltmeter will momentarily display system voltage. After a few seconds the MPH speedo display will appear.

A. If the speedo displays the letters "ndat" (no data) shown in figure A, this means that the speedo is not communicating with your GPS.

B. If the GPS reads "nsat" (NO satalite) shown in figure B, this means that the GPS and the speedo are communicating, however, your GPS has not fully determined its position yet. This may take up to 10 minutes initially, if your GPS is new.

C. After the GPS figures out where on the planet it is, then it will start to display speed in MPH shown in figure C. After driving your boat, the top speed can be displayed by pressing and holding the switch for 2 seconds. Release the switch when the top speed that your boat reached is displayed. If you were to continue to hold the switch during the displayed top speed recall for 5 seconds or more, then this number will be cleared from memory, so that you can retest your boat. **Note:** The top speed will also clear if the gauge is turned off.

D. To switch to the COMPASS mode shown in figure D, momentarily "Tap" the switch again. To switch to high RPM recall, press and hold for 2 seconds. Press and hold for 5 seconds or more to clear.

E. To switch to TACH mode shown in figure E, momentarily "Tap" the switch again.

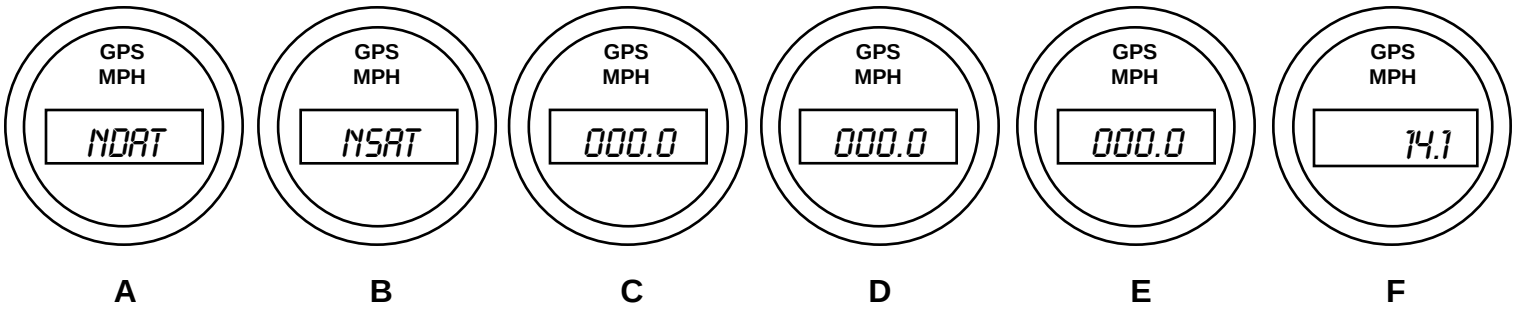
F. To switch to VOLTMETER mode shown in figure F, momentarily "Tap" the switch again.

If switch 1 is in the on (up) position, the display will only show speed and perform a high speed recall (by momentarily pressing the toggle switch). If you were to continue to hold the switch during the displayed top speed recall, then this number will be cleared from memory, so that you can retest your boat. **Note:** The top speed will also clear if the gauge is turned off.

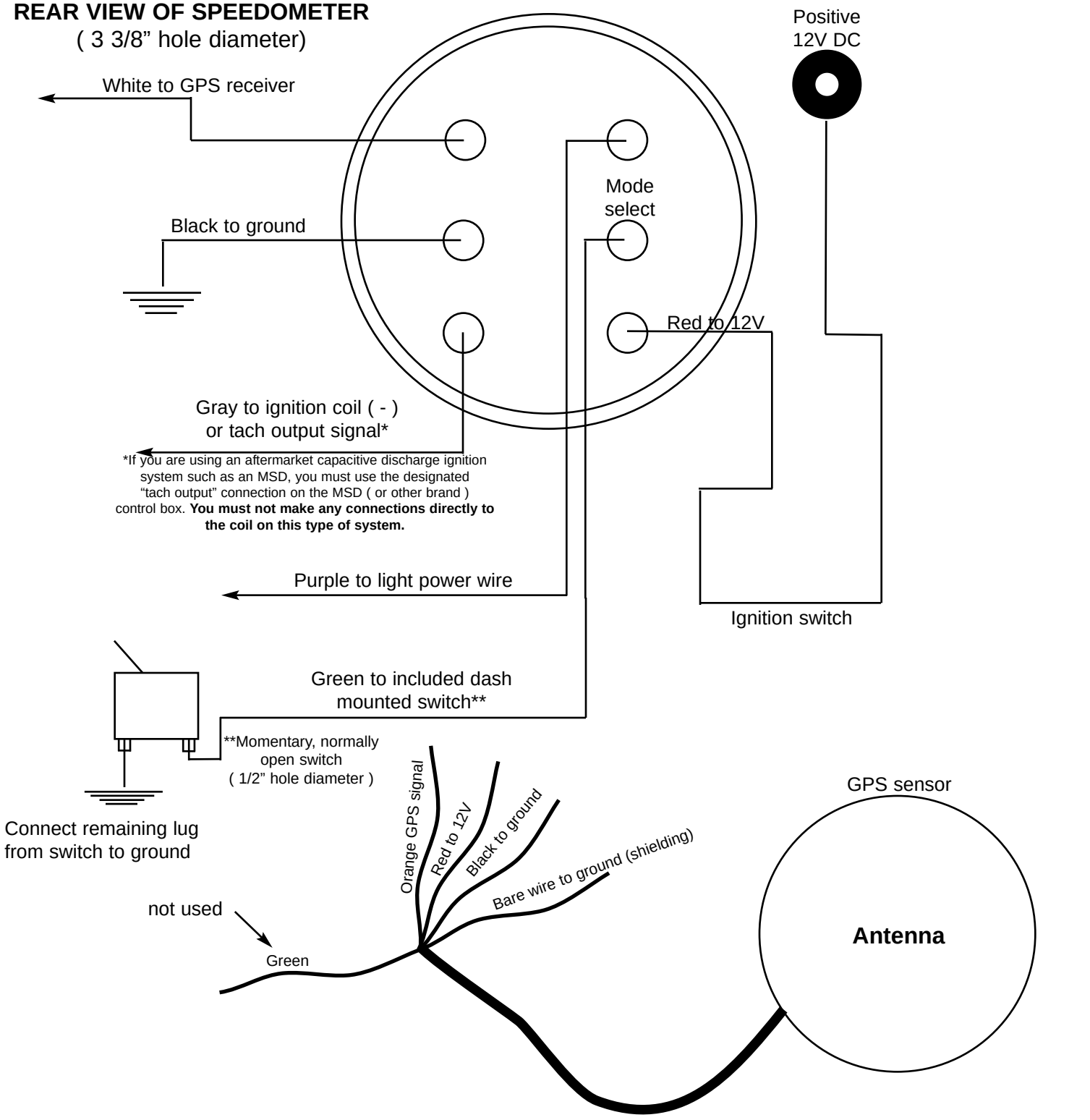
The TACH display has 4 digits. You can program the tachometer, by the use of the internal dipswitches on the back of the housing, to determine how many active digits you want and what the update rate is. If the TACH is used on a high performance race boat, you may want only the first 2 digits displayed to be active and the second 2 digits displayed to remain reading 00. In this mode, the tachometer updates at 100 times per second. If the tachometer is used for synchronyzing, you want to make all 4 digits displayed active and the update rate will only be 1 time per second. If you want something in between, then you can make the first 3 digits displayed active and the last digit read 0. In this mode, the TACH will update at 4 times per second.

Switch 2 controls the number of active digits for the TACH display. If switch 2 is in the on (up) position, then the **thousands and hundreds digits are active.** If switch 2 is in the off (down) position, then the **thousands, hundreds and tens digits will be active.** The units digit will always read zero in either setting.

Switch 3 and 4 are utilized for changing from an 8-cylinder engine to a 6 or 4-cylinder or outboard engine. **If switch 3 is off (down) and 4 is on (up),** then the tachometer will work on an **8-cylinder engine. If switch 3 is on (up) and 4 is off (down),** then the TACH will work on a **6-cylinder engine. If both switch 3 and 4 are on (up),** the TACH will be programmed for a **4-cylinder engine. If both switch 3 and 4 are off (down),** the TACH will work for **outboards.** You may want to try the operation of the TACH in a couple of different modes to see which update rate you like.



REAR VIEW OF SPEEDOMETER
(3 3/8” hole diameter)



715 Center Street * Grayslake, IL 60030 * Office: (847) 752-2700 * Fax: (847) 752-2415
web site: www.livorsi.com * email: info@livorsi.com