

1. Your Omega D2 dash

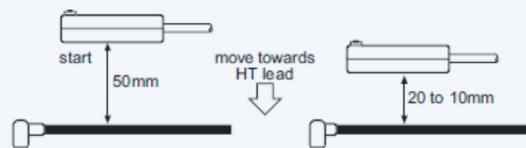
Your Omega D2 dash has been designed and pre-configured to allow you to use it "Out of the Box" as much as possible. However, before you can use your Omega D2-GPS you must perform the following simple steps: (Estimated time: 15 Mins.)

1. Connect your system to a 12V power source using red/black wire and preferably through a 2 Amp fuse.
2. Install your RPM Sensor.
3. Set the RPM input parameters.
4. Fit your GPS Receiver.
5. Set the GPS beacon position.

2. Install RPM sensor

Make sure the dash is powered up. RPM will be displayed top right. With the engine running and RPM displayed on your dash:

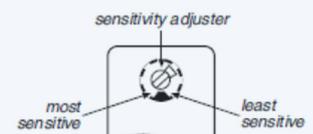
1. Hold the sensor 50mm from the HT lead.
2. Slowly move the sensor head towards the HT lead making sure that all other HT leads are at least 30mm away.
3. Check for an RPM signal on the dash when the sensor is within 20 to 10mm of the seated position on the HT lead.



4. If the first RPM signal response is seen at a distance greater than 20mm, turn the adjuster clockwise to decrease sensitivity.

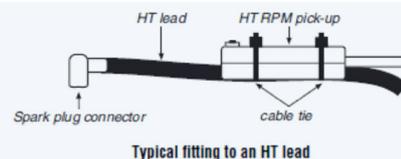
If the first response is seen at a distance less than 10mm, turn the adjuster anti-clockwise to increase sensitivity.

A first response with the sensor between 20mm and 10mm from the HT lead means that when the sensor is fitted to the HT lead, you will get a good response across the speed range of the engine.



HT RPM pick-up sensitivity adjustment

5. After adjustment use cable ties to fix the pick-up to the HT lead. Do not over-tighten.



3. Set the RPM Input Parameters

Before you can use the Omega Dash for an outing, you need to configure the way that engine RPM is detected and displayed on the dash. To set these parameters, Enter Initial Setup Mode:

1. Press and hold the **BLUE** and **GREY** buttons until **INITIAL SETUP** displays on the dash. Then click the **RED** button to enter the Initial Setup menu.
2. Click the **BLUE** button to scroll through the **SETUP** menu items until **RPM** is displayed. Then click the **RED** button to enter **SETUP > RPM**. (The first option displays '**RPM > REDLINE**').
3. Click the **BLUE** button to scroll through the RPM options :-



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RPM option	Description
REDLINE :	Set* a Redline threshold for the RPM display on the Dash.
SCALE :	BAR GRAPH MAX <value>. Set* the maximum RPM of the bar graph displayed.
LAUNCH :	LAUNCH REVS <value>. Set* the optimal launch RPM for your engine. (This setting helps the driver to maintain the optimal RPM level on the start line.)
PULSES :	PULSES / 2 REV <value>. Set* the number of sensor pulses produced for every two engine revolutions.
INPUT TYPE :	Select the input type for the RPM sensor (PuP / Pasiv / Pdown).
FILTER TYPE :	Set the type of filter to be applied to your RPM signal. <input type="checkbox"/> NONE. No filter will be applied <input type="checkbox"/> SP. This filter will remove any unwanted spikes normally found on distributor ignitions. <input type="checkbox"/> DIS. This filter will correct the RPM when used on wasted spark ignitions. Set the filter strength: 0 is least, 3 is most filtering.

- Click the **RED** button to **SELECT** an option,
- Click the **BLUE** button to **SET** the required value.
- Click the **GREY** button to **SAVE** the setting and return to the menu of RPM options.
- When you have configured all of the settings for the RPM channel, click the **GREY** button to **SAVE** the settings and return you to the **SETUP > RPM** menu. You can now navigate to other **SETUP** items.

*** Quick way to set a Value:**

- Click the **RED** button to scroll from left to right through the digits.
- Click the **GREEN** or **BLUE** buttons to increase or decrease the selected digit by 1.

4. Fit GPS receiver

- The GPS receiver has a waterproof polycarbonate body with integrated antenna. It can be used with either a magnetic or a screw down base.
- You should protect the sensor from vibration and make sure that the sensor will not be affected by heat soak.
- Try not to place the sensor near sources of electrical interference i.e. ignition coils, plug leads, ECUs, alternators and telemetry antennas.
- Locate the sensor facing upwards with a clear all round view of the sky.



5. Set GPS Beacon Position

For each track you attend you must MARK your GPS beacon position. This is done as follows:

- Press and hold the **RED** button. Click the **RED** button to confirm.
- Scroll through the menu using the **GREEN** button until you come to SET GPS BEACON. Click the **RED** button to confirm.
- The dash will now display BEACON IS HERE in the bottom display.
- Drive the car until you pass the position where you wish the beacon to be. Click the **RED** button to confirm.
- You have now successfully set the position of you beacon and the dash will display lap times as you pass the beacon.
- You can save the setup on the dash to allow you to use the same beacon position the next time you visit the same track. Please refer to the Toolset quick start guide for information on saving dash settings.

6. Additional Information

If after installation you observe irregularities in the recorded RPM trace for an outing readjust the sensitivity of the RPM sensor.

- If you observe missing pulses then move the sensitivity adjuster anti-clockwise.
- If you observe spurious pulses then move the sensitivity adjuster clockwise.
- Or increase the RPM filter value.

Your Omega Dash can also display the following information:

- Gear Position (Page 47).
- Club Qualifying Mode (CQM) (Page 74).

For information about enabling these features please see the Full Omega User Guide.

If you are still experiencing difficulties in setting up your Pi Omega D2-GPS dash, then please feel free to call us.



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