

DoDash >>> GPS setting <<<



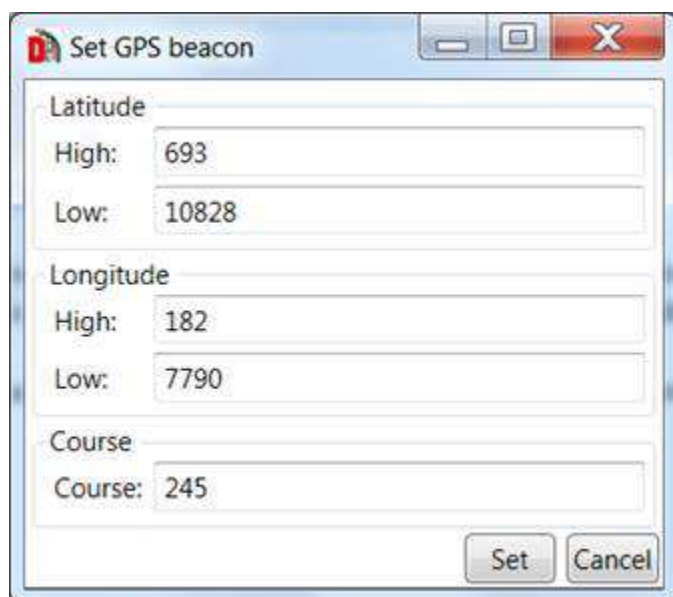
Requirement:

- DoPe 2.0
- **FW 16.008** or latest
- DoPe 2.0 software, **release DoPe_2_01_16** or latest

Please check that the MAT table contains the GPSC_xxx channels. Should you not see them, please contact DELLORTO (moto3@dellorto.it), we'll send you a .tam file, then rename it in .mat, open it in MAT realtime, copy all the channels to your current acquisition table, send it to the ECU and you should see the latitude and longitude values.

We suggest you to log these values for a couple of laps in order to identify the finish line GPS coordinates.

Open DoPe, select the ECU and click on "DoPe ECU\Set GPS beacon". Please enter the finish line coordinates values* into the box:

A screenshot of a Windows dialog box titled "Set GPS beacon". It contains input fields for Latitude (High: 693, Low: 10828), Longitude (High: 182, Low: 7790), and Course (245). There are "Set" and "Cancel" buttons at the bottom right.

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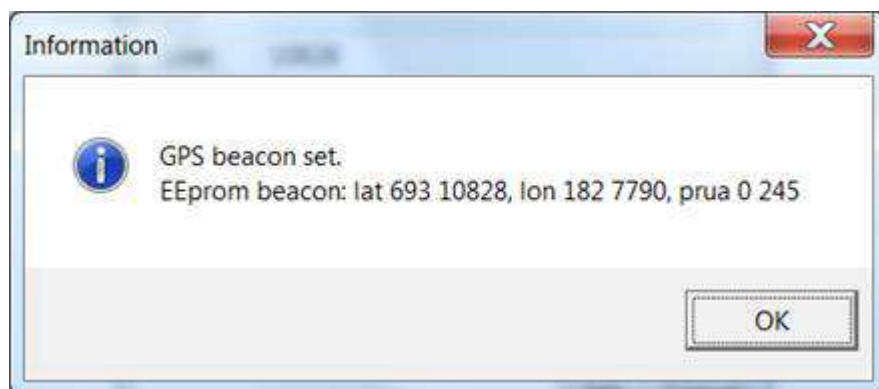
Sede Legale:
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The values to enter are those already acquired (from the top to the bottom):

- GPSC_LAT_H
- GPSC_LAT_L
- GPSC_LON_H
- GPSC_LON_L
- GPSC_COURSE

Once entered, select "Set". After a couple of seconds the following confirmation message will appear:



From the next time, when opening the beacon setting windows, DoPe will read the coordinates values previously set.

There is no calibration for enable/disable the GPS; when in a new circuit it is NOT necessary to disable the set coordinates in the previous race because they will be so far that won't be considered by the device.

The coordinates of the beacon in memory are logged in the GPSC_xxx channels at the beginning of the telemetry data. This is marked with GPSC_NSAT = 65535.

If you go back to race in a circuit where you have already set the beacon, just open the telemetry, look for GPSC_NSAT = 65535: you will find the coordinates to set to the ECU; you do not need to wait a couple of laps for having the coordinates.

After you used the GPS beacon system you desire to use the official X2 transponder in the same track, set all 0 in the box to avoid double beacon activations.

(*) Channels details:

Should you have DoData software, the math library to compute the coordinates is in the download section of our website www.dellorto-pe.com.

For those who has not our software, the latitude in degrees (north positive) and longitude in degree (east positive) are:

GPSC_LAT = (IFGT(GPSC_LAT_RAW,2147483647)*(GPSC_LAT_RAW-4294967295-1)+IFLE(GPSC_LAT_RAW,2147483647)*GPSC_LAT_RAW)/1000000

GPSC_LAT_RAW = GPSC_LAT_H*65536+GPSC_LAT_L

GPSC_LON = (IFGT(GPSC_LON_RAW,2147483647)*(GPSC_LON_RAW-4294967295-1)+IFLE(GPSC_LON_RAW,2147483647)*GPSC_LON_RAW)/1000000

GPSC_LON_RAW = GPSC_LON_H*65536+GPSC_LON_L



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To see it in googlemaps:

- export in ASCII (txt) format the GPSC_LAT, GPSC_LON (mathematics) and GPSC_NSAT to 20Hz, no interpolation on DoData.
- open using excel, remove the first rows until the column value is: $3 < GPSC_NSAT < 65535$
- remove GPSC_NSAT column
- write "T" in a free cell and copy
- select all the values in the first column(shift + ctrl + arrow) and paste
- heading (first row): insert "type" in the first column, "latitude" in the second, longitude in the third
- save as CSV file (say YES in the popup)
- upload the file on <http://www.gpsvisualizer.com/>

Should you have any problem/doubt get in touch with DELLORTO's team (moto3@dellorto.it).



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