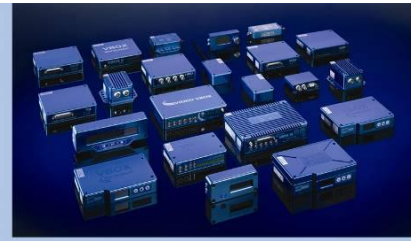


VBOX Lane Change Manual



Installation

The software must be installed onto the hard drive of a computer; it cannot be run from the installation CD.

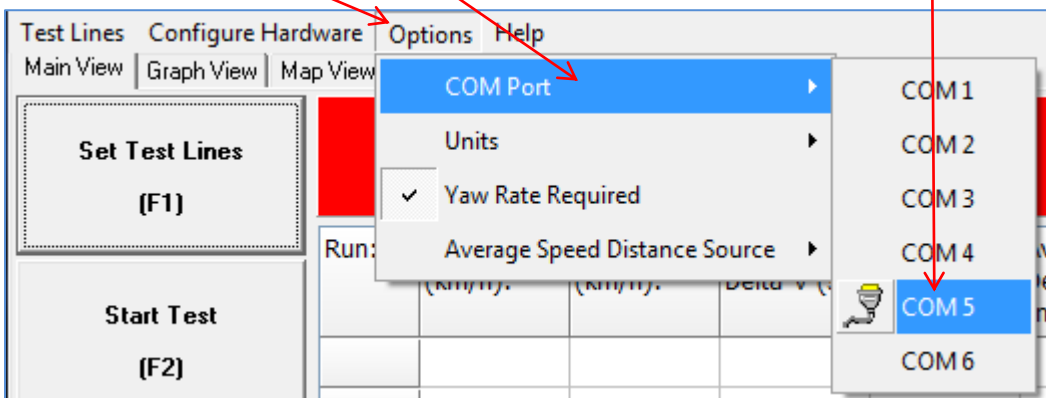
To install the software insert the CD into the CD drive of your computer. Then follow the onscreen instructions to complete the installation.

NB: Currently the installation process is only in English, please contact Racelogic to find out when other languages become available.

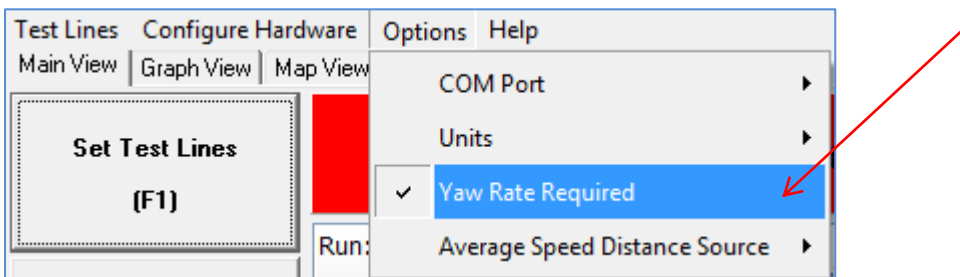
The Centreline Deviation software is not limited to one user or computer; it can be installed on more than one computer.

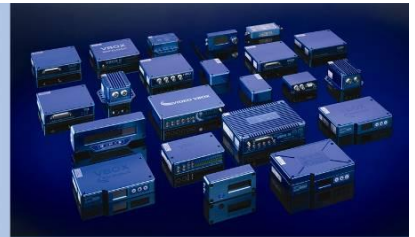
Software Set-up

Open the Lane change program and connect the VBOX making sure you have the correct COM port selected. This is done by selecting Options > COM Port > then selecting the COM Port your computer has assigned the device to.

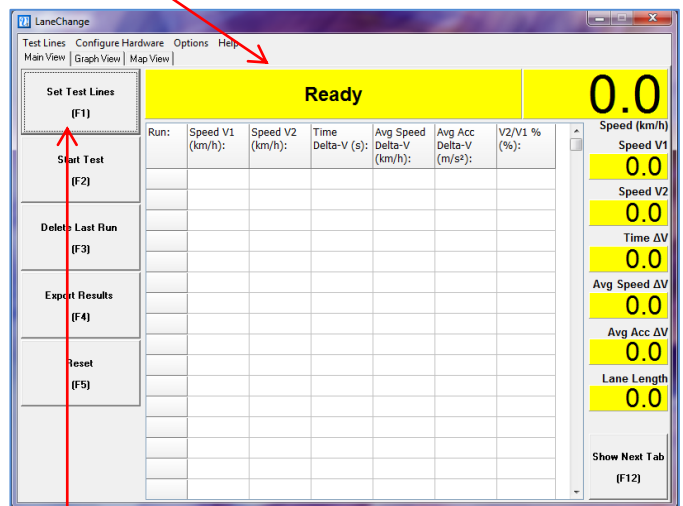
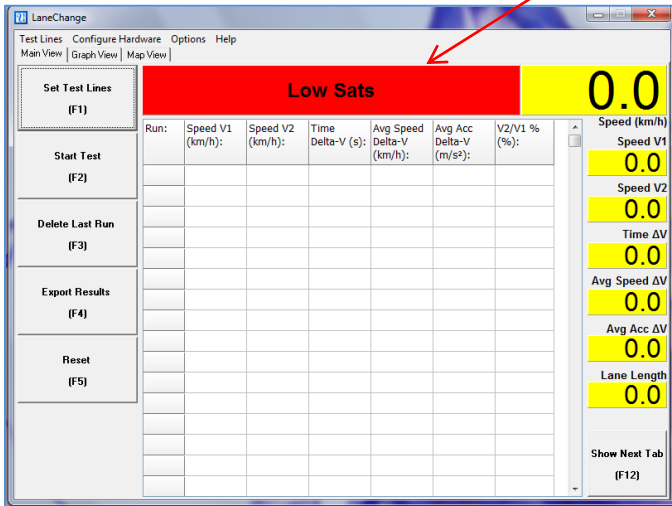


If you are not using an IMU for yaw data you will need to deselect the Yaw Rate Required option.



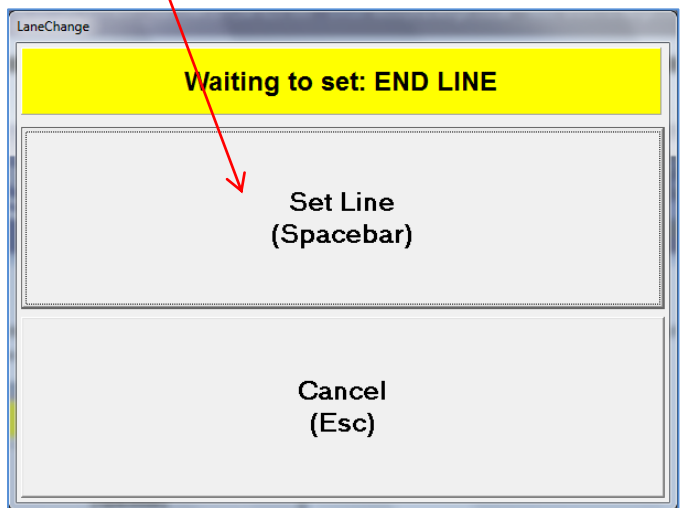
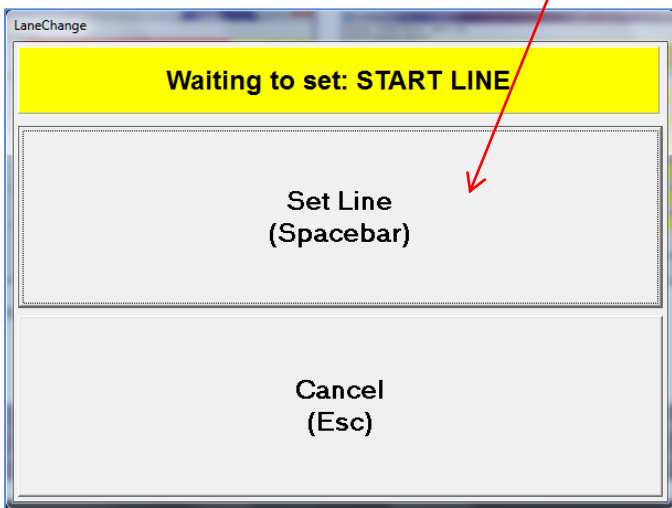


This should now begin to get satellite lock and change from low sats to ready.

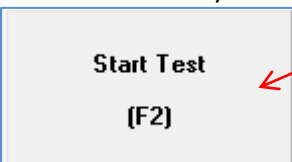


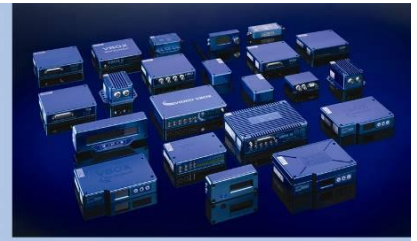
Now you are ready to create your test area, to begin this process press the Set test Lines button.

Drive through your start line and press space bar to set then repeat for the finish line of your test.

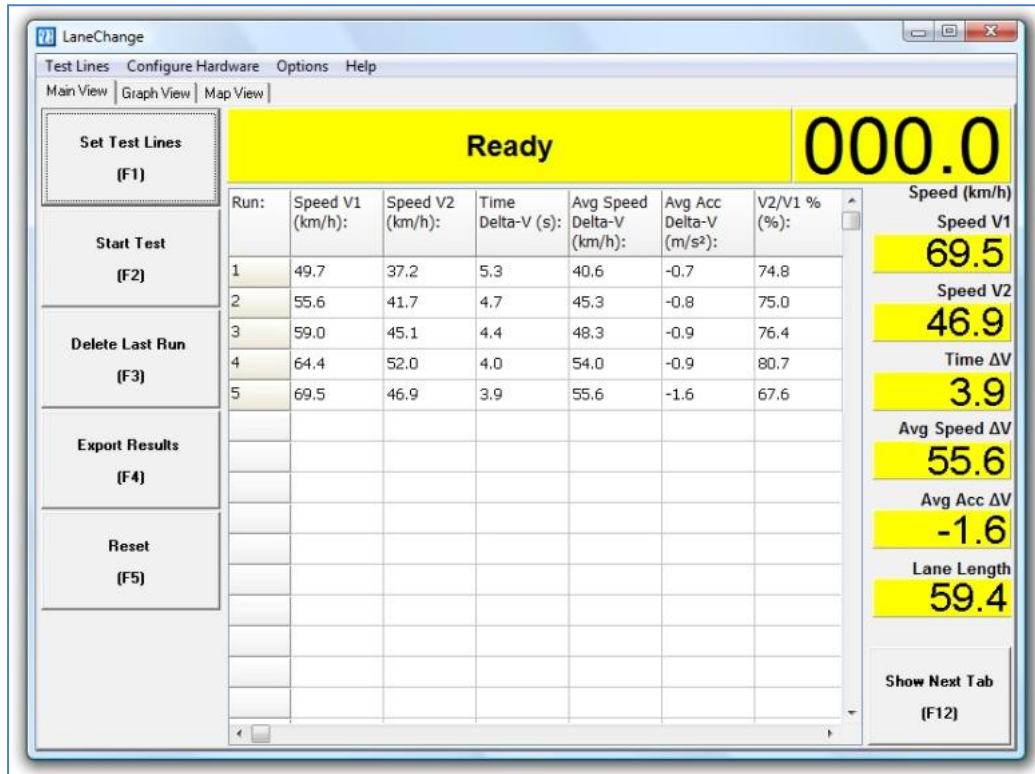


You are now ready to test so you must return to the beginning and press the start test button.

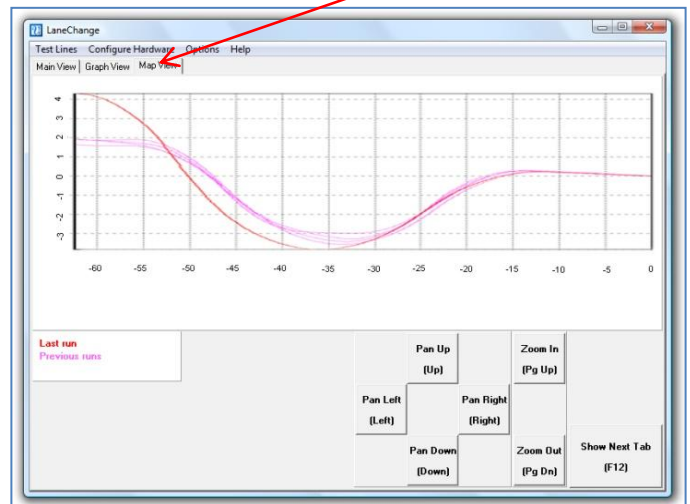
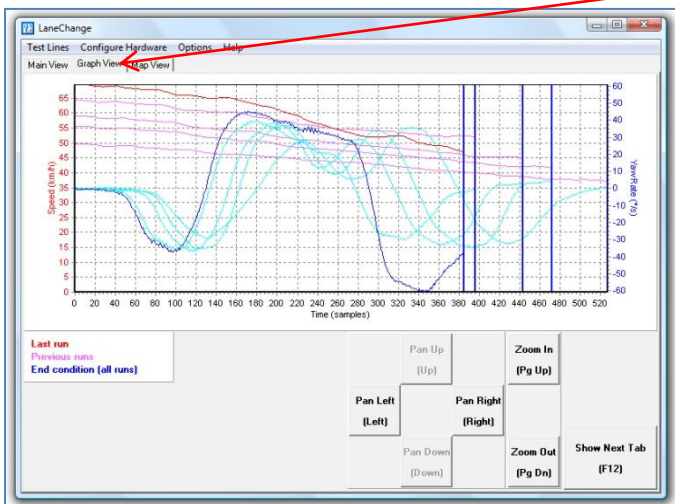


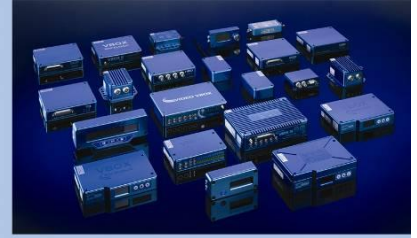


The Results should appear run by run in the software as the screenshot below display.



A graph, below, also illustrates speed and yaw rate against time, whilst a map view, below right, logs the trajectory of the vehicle. These views can be accessed after the test for easier analysis by using the graph view and map view tabs.





Repeat the procedure at increasing increments of 5km/h until the vehicle fails by hitting a cone. If a test run is deemed invalid for such reasons as driver error the run can be deleted using the delete run button and this run can then be repeated correctly.

**Delete Last Run
(F3)**

At this point you can export the results as a text file to keep for your records or use in other programs such as excel for further comparison and analysis.

The Results should appear run by run in the software

**Export Results
(F4)**

The entire test can be reset with this button; it will delete all lines but keep the start/finish line.

**Reset
(F5)**

The Equipment

- VBOX 3i 100Hz GPS data-logger. *Note: it is possible to use a VBOX 100Hz Speed Sensor in place of a VBOX 3i and output to an external data-logger*
- Laptop or Racelogic Q2 Tablet PC
- Racelogic Lane Change Test Software
- Racelogic IMU (Inertial Measurement Unit), which provides an accurate measurement of yaw rate. *Note: IMU is optional, but it will help to produce accurate data if the test site is obstructed, and is required by some local test regulations.*

