

## Introduction

The objective of this test is to measure Lap times and Split times.

## Equipment used

- 1 x VBOXIIDCF (VBOX Lite or VBOXIII also applicable)
- 1 x Cigar lighter adapter, RLVBCAB10
- 1 x GPS Magnetic Aerial, RLVBACS050
- 1 x 32Mb Compact Flash Card, RLVBACS005
- 1 x Multifunction Display, RLVBDSP03
- 1 x PC running VBOX software V8.2.2 bld 17 and Report Generator 5.9

## Test Procedure

Place the magnetic GPS Aerial on the roof of the test vehicle and run the cable into the vehicle through the door seal. Connect the aerial cable to the VBOXII ensuring the connection is free from dirt. Connect power to the VBOXII using the cigar lighter adaptor or a battery pack. Connect the Multifunction Display to the VBOX socket 2 using a CAB05 lead. Mount the MFD in a suitable place such as the windscreen of the car using the suction cup-mounting adaptor. Insert an empty compact flash card into the compact flash card slot in the VBOXII. For the test, the VBOX should be left until the green 'ST' light on the VBOX indicates that at least 6 satellites are in lock.

Before the Lap times can be measured a start/finish line has to be set in the MFD. Any required additional split lines around the circuit must also be set in the same way. To do this, enter the Lap timing screen on the MFD by clicking the Left/Right arrow buttons until 'Lap Timing' is in view. Then press the 'OK' button followed by the right button twice, the screen should now show 'Lap Setup'. Press 'OK' to enter this screen, then press the right button, the screen will now show 'Set Start Finish'. This is ready for the start/finish line to be set. Drive the vehicle around the circuit and at the point you wish the start/finish line to be placed, press the 'OK' button. Ideally the start/finish line should be placed at a fast point on the circuit, this improves the Lap time accuracy. After pressing 'OK' at the 'Set Start Finish' screen, the display should show the message 'Set Split 1', the MFD is then ready for the first split point to be set by pressing the 'OK' button at the desired point on the track. When the Start/finish and split lines (maximum of six) are placed scroll left or right until 'Back' is shown. Press 'OK' to go back to the 'Lap Setup' screen, then scroll left until 'Back' is shown and press 'OK' to get back to the main display screen.

## Viewing the Data

To view the lap time, split time and any other associated data you will need to set four chosen parameters into the Lap Timing screen. The list of available parameters is shown in the table below. To set a parameter from the main Lap Timing display screen, press 'OK' then scroll right to display 'Set Parameters'. Press 'OK' then scroll right to show the first parameter display position (top left). Press 'OK' then scroll through the options and press 'OK' to select the desired parameter. Continue to do this for the other three parameter locations.

The selection of the parameters can also be done through VBOX setup in VBOX software. With the VBOX connected to the MFD and the computer, run the VBOX software and enter VBOX setup. In the 'Log channels' tab click on the MFD tab and then click on the picture of the MFD. This then interrogates the MFD and displays the MFD setup screens. Select the Lap Timing tab to show an image of the MFD and LAP timing setup options. To change the parameters click on the parameter position on the screen image of the MFD then select a new parameter from the drop down list.

The list of available Lap timing parameters is shown in the MFD manual.

