Ford Scorpio 95+ Lock on Go Configuration Software

Table of Contents

Introduction

The Lock on Go system is an experimental modification, for the Ford Scorpio 95+ car. The system monitors the speed of the vehicles VSS (Vehicle Speed Sensor), it then calculates the speed of motion. At a pre set speed the cars central locking is activated to lock the doors. Additionally two-speed alarms can be utilised, to warn the driver of illegal speeds.

The use of this system and software is at your own risk, please read the Software agreement, provided with the software.

Parameter List

Calibration Variable

This is an 8-bit integer, (0 to 255) and represents a calibration offset. A value of 127 equates to 0 offset, 255 will give an increased speed reading and 0 will give a decreased speed reading.

With a 2.2Hz per MPH VSS, a Calibration Value of 127 should give an accurate representation of speed. However this value can be used to calibrate the Speed, so that it matches the Scorpios Speedometer, if required.

[The variable effects the time sample of the pulses from the VSS
*Time = (373 + Calibration Variable) * 2*
*e.g. 1000mS = (373+255) * 2]*

Lock Signal on Delay

This is an 8 bit integer, (0 to 255) and represents the Time in 10 mS divisions, that the Central Locking system will be commanded to lock for.
i.e. the time that the Lock relay on the pcb closes.

Suggested Value 100 (This sets 1S)

Lock at Speed

This is an 8-bit integer, (0 to 255) and represents the Speed in MPH, at the point the Central Locking system is demanded to lock.

Overspeed Alarm 1

This is an 8-bit integer, (0 to 255) and represents the Speed in MPH, at the point an audible warning will occur.
Set this to 255 to defeat the Alarm.

The Alarm Speed must be passed for 6 consecutive seconds (or the resultant time given in the Calibration Value). Reducing Speed under the Alarm Speed before the Alarm is sounded will reset the timer.
i.e. if the Speed Alarm is breached and driver reduces speed before Alarm, the driver will then have to again breach the speed for 6 seconds before the Alarm will sound.

Suggested value 30mph.

Overspeed Alarm 2

This is an 8-bit integer, (0 to 255) and represents the Speed in MPH, at the point an audible warning will occur.
Set this to 255 to defeat the Alarm.

The Alarm Speed must be passed for 6 consecutive seconds (or the resultant time given in the Calibration Value). Reducing Speed under the Alarm Speed before the Alarm is sounded will reset the timer.
i.e. if the Speed Alarm is breached and driver reduces speed before Alarm, the driver will then have to breach the speed for 6 seconds before the Alarm will sound.

Suggested value 60mph.

Re Lock After Stop

This is a Boolean value (0 or 1, Ticked or Unticked) and represents the logical decision for Re Locking. If this value is checked, then the Scorpio is driven away and the Lock at Speed value is exceeded causing the doors to lock. Then if the vehicles speed falls to 0 MPH i.e. stopped; the doors will relock once the car is driven away and the Lock at Speed value is again reached.

Receive Parameters

To Set up the remote Lock on Go circuit, the config software must be running on a suitable PC, the software must be configured for the correct Com port and a suitable lead must be connected between the PC and the remote circuit. Also a 12V supply must be correctly available for the remote circuit.

The Lock on Go module only looks for a Set-up command for 2 seconds after its powered up (or reset). Launch the software and press the *Set Up Remote* button, the software will poll the remote circuit for approximately 30 seconds, within this time turn on (or if already on, turn off and back on) the remote Lock on Go's Power Supply. (i.e. interrupt the +12v supply. If the system is installed within the Scorpio, turn the Ignition Switch to off then to Position 2)

Trying to Connect, followed by *Connected* should be shown at the bottom left of the applications window. The LED on the remote circuit should also illuminate, when in setup.

You can now press *Get Parameters*, Downloading From The Remote, followed by *Parameters Downloaded* should be displayed.
No error checking is done within the serial communications, as a result if an error occurs a re try is not automatically instigated. An error is flagged by returning a negative value. If a negative value is returned, within any Parameter box, simply press the *Get Parameters* button again.

Send Parameters

To Set up the remote Lock on Go circuit, the config software must be running on a suitable PC, the software must be configured for the correct Com port and a suitable lead must be connected between the PC and the remote circuit. Also a 12V supply must be correctly available for the remote circuit.

The Lock on Go module only looks for a Set-up command for 2 seconds after its powered up (or reset). Launch the software and press the *Set Up Remote* button, the software will poll the remote circuit for approximately 30 seconds, within this time turn on (or if already on, turn off and back on) the remote Lock on Go's Power Supply. (i.e. interrupt the +12v supply).

Trying to Connect, followed by *Connected* should be shown at the bottom left of the applications window. The LED on the remote circuit should also illuminate, when in setup.

You can now enter the required parameters in the area to the left of the application window, then press *Send Parameters*, to transfer these parameters to the remote Lock on Go unit. *Uploading to Remote*, followed by *Parameters Sent* should be shown.

Reset

Once you are connected to the remote Lock on Go unit, the ***Reset*** button can be pressed to Re start the unit. If you want to Re Connect for Setup press ***Set up Remote*** button within 2 seconds of the Reset LED on the PCB switching off.

Display Speed

When the system is Not in Set up mode, the ***Get Speed*** button can be pressed. On doing so the calculated Speed and the VSS frequency are displayed, also a Bargraph in the range of 0 to 140 MPH is shown. *Receiving Speed Data* should be shown.

Note the VSS frequency is calculated at the PC from the returned Speed, and as such is only a calculated value.

The speed can be displayed at all times except for Set up mode. This allows monitoring of the returned speed value via a Notebook PC, in an aid to calculating the Calibration Variable.

DO NOT OPPERATE SUCH EQUIPMENT WHEN DRIVING, HAVE A SECOND PASSENGER PERFORM THESE TESTS DO NOT TRAP WIRES AROUND ARMS AND LEGS.

Options

Within the Options Menu you can select the serial Communications Port, COM Port, that you want to connect to. Enter the required number and click ***OK*** , the status of the selected port will be indicated. The system always defaults to COM1.

Most USB to serial converters will work with software.