

SAFESTOP

Automotive Management Systems

Toyota Quantum Idle, Rev & Speed Limiter with driver pre-warning (IRS-2)



FEATURES

- * **ENCAPSULATED SOLID STATE ELECTRONICS**
- * **TAMPERPROOF**
- * **VIBRATION RESISTANT**
- * **WATERPROOF ELECTRONICS**
- * **FAIL-SAFE - IF WIRING IS TAMPERED WITH OR IS DISCONNECTED**
- * **SELF DIAGNOSTIC**
- * **DEDICATED WIRING HARNESS**
- * **FAULT INDICATION DISPLAY UNIT**
- * **CODED CALIBRATION**
- * **ALARM PRE-WARNING BEFORE POWER LOSS**
- * **LIMP MODE THROTTLE CONTROL**
- * **SPEED & REV CONTROL VIA E-THROTTLE**
- * **5 or 10 MINUTE CONTINUOUS IDLE CONTROL**
- * **THE SYSTEM CONTINUOUSLY MONITORS BATTERY QUALITY**
- * **NATIONAL DISTRIBUTION**
- * **NATIONWIDE 24 HOUR SUPPORT/SERVICE VIA TOLL FREE EMERGENCY NUMBER IN RSA**

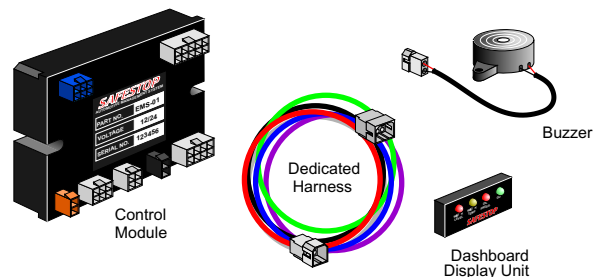
INTRODUCTION

The replacement cost of vehicles & the never ending increase in the price of fuel, service & spares, which upsets the repairs and maintenance budget, can cause late deliveries, vehicle downtime and potential loss of income makes it imperative that the wise Fleet Manager & Vehicle Owner considers investing in driver control equipment as a means to control driver attitude & to control operating costs.

All these problems can be minimised by installing a **SAFESTOP** IRS-2 Idle, Rev & Speed Limiter.

DESCRIPTION

Standard equipment consists of an epoxy encapsulated control module, dedicated wiring harness, dashboard display unit, a high frequency Piezo buzzer as well as a relay to control excessive engine idling



The **SAFESTOP** system's uniqueness is its built in diagnostic and pre-warning functions.

Three circuits monitor driver attitude and enforce Management limits via control of the E-Throttle and engine.

Speed and Revs are controlled to pre-set and calibrated limits after providing a pre-warning to the driver via the buzzer.

Throttle Control is temporarily denied, which effectively puts the vehicle into "Limp Mode".

The throttle is only reinstated once the speed or revs have reduced to below the buzzer warning point and the driver has removed his foot from the accelerator.

Throttle Control ensures that the vehicle is controlled in the most safe manner possible & that the driver is always fully in control of the vehicle.

Excessive Engine Idle is also monitored & this circuit will stop the engine after a selected 5 or 10 minutes of continuous idling.

Immediate restart is a standard function.

The SAFESTOP IRS2 system is "fail-safe" which means that the system and the vehicle must be in good operational condition or the engine will be stopped until the fault is repaired.

Simply put, if the vehicle leaves the depot the system should be functioning.

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OPERATION

When the ignition switch is turned on the display unit and displays the Green "GO" light. This indicates that the IRS2 is fully functional and that all lights are in good order.

The **SAFESTOP** IRS2 permits an immediate engine start provided that the vehicle battery voltage is at a satisfactory level and the "GO" light is on.

Whilst the "GO" light is on the engine can be started and the vehicle can be worked on.

The engine will switch off immediately that the "GO" light is off.

The respective circuit light turns on together with the buzzer and in the event that either the Speed or Rev parameters are exceeded and after a few seconds the engine switches to "Limp Mode".

The throttle ceases to function.

Only once the Speed or Revs reduce to below the buzzer warning point and then only after the driver has momentarily removed his foot from the accelerator pedal will the accelerator reactivate and the vehicle come back out of "Limp Mode".

This feature is designed to assist with preserving the drivetrain and forces the driver to operate the vehicle within preset parameters

Thirty seconds before the engine switches off for excessive Idling the Buzzer will beep intermittently and the Idle Light will flash and the engine will switch off once the timer has reached it's limit.

At any time during the warning period the driver can reset the timer by moving the vehicle a few metres.

Immediate engine restart is available if the engine is shut down for excessive, continuous engine idle.

SPECIFICATIONS

Control Module	: Epoxy encapsulated
Size	: 70x70x20 mm
Voltage	: 12 or 24v DC
Output Circuit	: Idle Engine Stop Control
Throttle Control Circuits	: High Road Speed : High Engine Speed
Buzzer	: 6 - 24v DC Piezzo High Frequency



GENERAL INFORMATION (FAQ)

Why does the **SAFESTOP IRS2 system operate through the accelerator?**

The main reason is safety as **SAFESTOP** does not momentarily switch off the engine to introduce a reduction in vehicle power.

Not like other control systems available in the marketplace the **SAFESTOP** IRS2 links to the accelerator to ensure that the driver cannot leave his foot on the accelerator & potentially damage the drivetrain by powering on and off continuously.

It also ensures that the system can be used on both Petrol and Diesel engined vehicles for uniformity across the client fleet

Where can I expect to see savings if I install the **SAFESTOP IRS2?**

Information coming back from our client base indicates significant fuel savings, extension of tyre and brake life & a major reduction in accidents, severity of accidents & traffic fines.

In some instances clients have paid for the equipment from savings made within two weeks of purchase.

In what industries are **SAFESTOP IRS2 systems used?**

Our customers come from the some of the following industries -

Passenger Services
Security
Industry
Mining
Freight

Manufactured in the Republic of South Africa

Manufacturer	Safestop cc
Address	233 Barry Hertzog Ave Emmarentia Johannesburg
Tel	+27 11 486 1911
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Web	marketing@safestop.co.za
Product Support	0800 200 859 (Free in RSA) +27 (11) 4861162 (Int)

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