CALCOM TOOLS

VcarSys

The electronic devices are programmed to work within a CAN network

Via the CAN Bus, on a random basis they read what other devices are doing with which they have a relation and they report what they are doing

Within the automobile we can communicate with the devices via the OBD with diagnosis machines

If a device does not receive the information its programming requires, then it is disabled

Sercore develops its own communications emulation system for automobiles allowing it to communicate with electronic devices without them having to be connected to the CAN Bus. Designed with latest generation technology and manufactured wholly by Sercore as per standard ISO 9001

UTILITIES AS SIMULATOR

INTERNAL COMMUNICATIONS SIMULATOR FOR AUTOMOBILE VEHICLES

1.- It allows electronic devices to be tested outside the car

a) Stress – free test

b) Stress test as aid to standard test bench

2.- It allows electronic devices to be tested inside the car disconnecting them from the CAN network

a) It identifies wiring faults

b) It identifies "false errors" in the diagnoses

UTILITIES AS CALIBRATION TOOL

EPS CALIBRATION AND OTHER ELECTRONIC COMPONENTS

INSERTION OF THE VIN Nº

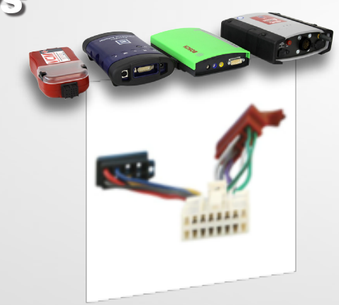
CONTROL OF ELECTRONIC BOARDS FOLLOWING THEIR RECONSTRUCTION OR REPAIR, PRIOR TO THEIR BEING FITTED

CALIBRATION OF THE COLUMNS ROTATION SENSOR

FINAL CALIBRATION FOLLOWING THE RECONSTRUCTION NECESSARY IN LATEST GENERATION DEVICES

CALCOM TOOLS VcarSys

FUNCTIONING SHEME



TOOLS / SUPPORT UPGRADE

Control and Communications Software (SCC)

Each electronic device requires its own emulation and calibration software (SCC).

Each device requires its own connection cable.

RANGE OF COVERAGE PER DEVICE TYPE

AVAILABLE

Electronic hydraulic pumps : ***48 references***

Electronic steering columns : ***79 references***

Electronic assisted steering direction rack : ***22 references***

UNDER DEVELOPMENT

ABS
Airbags
Control panels
Gearboxes
Turbos

TARGET MARKET 1

1.- Major Recontruction Companies

a) Perfect text bench complement for manufacture to scale

i. *Laboratory control over electronic reconstruction boards prior to their being fitted in the electronic device*

ii. *Tools for inserting VIN Nº*

iii. *Different type of calibrations*

b) Laboratory tools

i. Development of new references

ii. Development of reconstruction of new electronic devices

Sercore uses 2 VcarSys in the research laboratory and another 1 VcarSys in the production line for electronic boards and final calibrations.
Also, 3 test benches (for electronic columns, pumps and racks) in serial production lines

TARGET MARKET 2

Medium and Small Repair Companies

1.- Stress-Free Tests

a) *Control of functioning before and/or after repair of the electronic device*

b) Tool for inserting VIN Nº

c) Different types of calibrations

2.- Stress Tests

a) *As communications management aid in standard test benches*

Arguments

Low investment cost and fast amortization

Possibility of developing their repair systems little by little starting from the best selling references

Possibility of buying the Sercore reconstruction protocols for the references most difficult to reconstruct

Ideal for repair on short production runs.

Scrap yards

1.- Stress-Free Tests

a) Control of functioning

b) Issuing of control certificate

c) Tool for inserting VIN Nº

d) Different types of calibrations

Arguments

Low investment cost and fast amortization

Possibility of selling used products with functioning certificate which protects them legally from the sale of used products affecting the safety of the vehicle

This control can be done in the EPS and used Airbags is a great business opportunity for scrap yards.

PATENT FILED 10/04/2013

(Pending approval for world coverage WO/2014/167150)

SUMMARY OF CLAIMS

Device for the checking of multiple automotive components, capable of doing so with the part outside the vehicle, simulating the electronic communications of the car, such as for example, electronic assisted steering, electronic switchboards for engine, ABS and ESP systems, instrument panels, etc.

User participation via an interface associated with an electronic control system, which connects an adaptation stage and the corresponding input and output stage, forming a compact, portable and autonomous equipment.

The device communicates with the EBP, creating the usual control signals in that EBP, as well as emulating the signals of other devices or sensors that are essential for the functioning of the EBP.

The user interface allows selection of the appropriate environment for each EBP, furthermore allowing a selection of different situations for it, such as vehicle speeds, variation of the sensors, on/off, etc., allowing the filtering of the different nodes one by one

Programming and running of automatic test programmes for the EBP.

VCarSys SZ23A

meets the requirements stated in the following DIRECTIVES:

- DIRECTIVE 2006/95/EC ELECTRICAL EQUIPMENT DESIGNED FOR USE WITHIN CERTAIN VOLTAGE LIMITS.
- DIRECTIVE 2004/108/EC ELECTROMAGNETIC COMPATIBILITY
- DIRECTIVE 2011/65/EU RESTRICTION ON THE USE OF CERTAIN HAZARDOUS SUBSTANCES IN ELECTRICAL AND ELECTRONIC EQUIPMENT

Therefore it can be marked as

CE Product

CALCOM TOOLS

VcarSys

Robust structure for industrial use

Suitcase format permitting easy transport and mobility owing to electronic communications compacted in a single motherboard, instead of large size electronic control panels.

Designed for use with high performance high strength cabling, unifying power and communication in a single cable.

Capacity for communication at speeds greater than 500 kbs with low level devices capable of assuring stable communication without loss of information.

Simulator and calibration tool features

Outer casing

- High resistance to high and low temperatures
- High resistance to blows
- High resistance to damp
- High resistance to weight supported
- Can transport weights of up to 120 kilos

CHARACTERISTICS OF COMPONENTS

Panel PC

Táctil LCD color: 262K

4:3 12.1" Fanless LED Panel Computer

IP65 Compliant Front Panel. The value «6» in the first numerical digit describes the protection level towards dust, in this case : «Dust must not enter under any circumstances».

Intel® Atom™ D525, Dual Core, Low Consumption CPU

Incorporated a 12.1" 4:3 touch screen LCD panel with resolutions up to 800x600 (SVGA) and 450 nits brightness, industrial motherboard for versatile industrial applications, the Xtrem-nP1220T is fanless Panel PC based on the Atom™ D525 processor. The Panel PC comes with flush panel design and can have IP65 front for industrial applications.

DDR3 1GB / 2.5" HDD Bracket

CHARACTERISTICS OF COMPONENTS

PUSH-BUTTONS

INDUSTRIAL USE
2 MILLION OPERATIONS
LED LIGHTING

POWER AND COMMUNICATIONS CONNECTORS

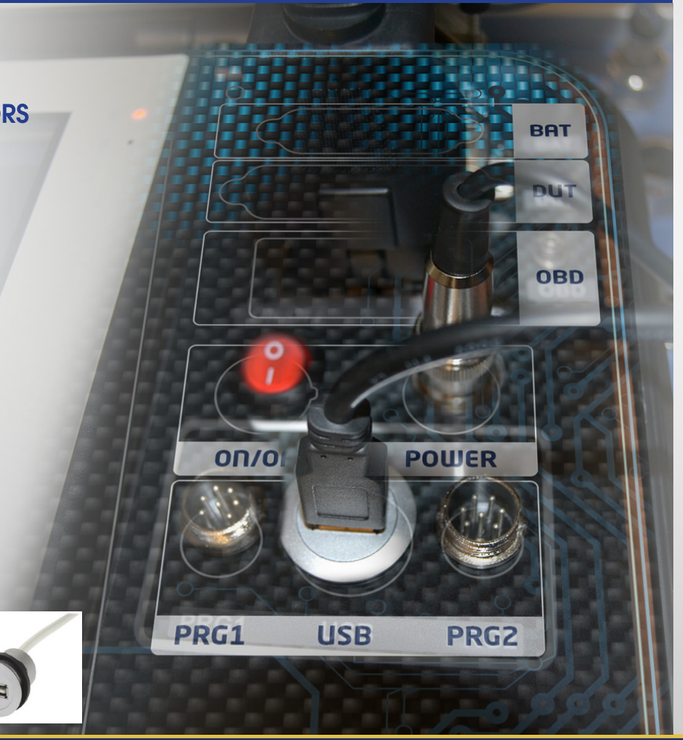
HIGH STRENGTH METALLIC
UNIFIED POWER AND COMMUNICATION SIGNAL
UP TO 80 AMPS

EXTERNAL USB

SOFTWARE UPDATES
INTRODUCTION OF NEW REFERENCES (SCC´S)

FRONT PANEL PROTECTOR

SANDWICH OF ALUMINIUM WITH
POLYCARBONATE



Lloyd's Register
LRQA

CERTIFICATE OF APPROVAL

This is to certify that the Quality Management System of:

SERCORE TECH, S.L.
Pol. Los Frailes, Nave 115
28814 Daganzo de Arriba, Madrid
Spain

has been approved by Lloyd's Register Quality Assurance
to the following Quality Management System Standard:

ISO 9001:2008

The Quality Management System is applicable to:

Rebuilding, manufacture and distribution of drive shafts and c.v. joints for the automotive industry.
Rebuilding and distribution of hydraulic and electronic power steering, hydraulic and electronical power steering pumps, steering racks and air compressors for the automotive industry.

Approval
Certificate No: SGI 2952483

Original Approval: 05 June 1996
Current Certificate: 01 May 2014
Certificate Expiry: 30 April 2017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EXIT
DUT POWER
DUT ENABLE
F1


PRG1
USB
PRG2


DUT POWER
DUT ENABLE
F1


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