



### System Features

- Compact, comprehensive, sturdy design
- All working Systems can be studied to their operations.
- Basic Trainer instrumentation as optional attachments.
- Fault creation panel for teacher & faultfinding & remedies panel for students
- Slide, Charts, CBT as an optional Accessories

### System Description

Tesca Car Electric Actuator Trainer 32541 have the main components of the car electric system fixed together on a board and can be operated on 12V means of a transformer-rectifier unit (220V/12V)

System is mounted on M.S. Structure. Separate Teacher panel will have facility of fault creation & student has to study all parameter & find the fault in the system.

There is different trouble shooting in the car electric circuit given as below which can solve by using a fault trainer.

### Technical Specifications

- Colored schematic diagram with 5 LED for locating the tested components in the vehicle
- Analysis of fuel injector control signal with speed variation from 900~6000rpm and adjustable injection
- timing from 2ms~12ms
- Exhaust gas recirculation valve with test points for the analysis of the signal for adjusting the valve opening versus the duty cycle varying from 10%~90%
- Simulated common rail injector with test points for the analysis of the adjustments of:
  - ♦ pre-injection time from 0.1~0.7ms
  - ♦ delay of injection pulse from 0.7~4.5ms
  - ♦ injection time form 0.2~1.8ms
  - ♦ control frequency between 15Hz and 80Hz (900-4000rpm)
  - ♦ injector opening pulse of 70V

Stepper motor for idle control with 4 test points for the analysis of the signal on each winding

Regulation of pilot tone from 5Hz~50Hz; four LEDs indicate the bias of windings Possibility of reversing the rotation direction and measurement on a milli-metric scale

### Fault conditions:

Accessories like Horn and lightening not working properly.

Note: Specifications are subject to change.

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The wire connections loose.  
When we put the key in the ignition and go to start the car but the key doesn't turn.  
Cut off and faulty actuator  
Actuator in positive short circuit  
Actuator in short circuit to earth  
Interconnection and test points – Ø 2mm

**Specifications:**

- Starting system – Battery, starting motor, wiring, and switches
- Charging system – Alternator and regulator, with wiring
- Ignition system
- Teacher panel
- Student panel.
- Accessory system – Horns, lighting, instrument panel warning system.

**Power Supply Unit:**

Regulated voltage, electronically protected against short-circuits and overloads  
Knob facility for selecting desired voltage

- Output 1: 1.3Vdc ÷ 24Vdc, 1A
- Output 2: 24/Vac – 0 – 24Vac, 0.5A
- Output 3: +5Vdc – 2A
- Output 4: +12Vdc – 2A
- Output 5: -12Vdc – 1A
- Input source: 220~230V AC, 50Hz, 1 Phase

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