Product Information Sheet

Automotive Lighting Circuits Board





This hands on-learning resource allows students to build a variety of automotive lighting circuits using a range of onboard components. Students are set tasks that encourage them to explore vehicle lighting circuits practically to help develop their understanding of the associated electrical components, circuits and systems. The resource is also focused on the development of diagnostic and fault-finding skills using real test equipment.

This resource is supplied with a curriculum manual CD containing practical tasks and activities.

The trainer can also be used in conjunction with our optional cloud-based software, which offers online practical automotive electronics tasks as well as interactive theory presentations, investigations, and assessments, which link directly to the practical activities carried out using this resource.

Practical Topics Covered Include:

- Interior light circuits
- Brake (stop) circuit
- Reverse (back up) circuit
- Dip/main (lo/hi) beam circuit
- Hazard warning circuit
- Direction indicator (turn signal) circuit
- Side and rear (park and tail) circuits
- Introduction to headlamp circuits
- Relay circuits

Typical Activities Include:

- Use a multimeter to investigate a simple vanity light circuit.
- Troubleshoot a faulty vanity light circuit with a multimeter.

- Build an interior light circuit operated by a door contact and add a manual override.
- Troubleshoot a faulty brake (stop) light circuit with a multimeter.
- Investigate a reversing (back up) light circuit with a multimeter.
- Troubleshoot a faulty dip/main (lo/hi) beam circuit.
- Investigate how a flasher unit works.
- Construct a hazard warning circuit.
- Troubleshoot a faulty hazard warning circuit with a multimeter.
- Troubleshoot a faulty direction indicator (turn signal) circuit.
- Troubleshoot a faulty side and rear (park and tail) circuit.
- Construct a relay-operated headlamp circuit.
- Build a complete vehicle lighting system.

The circuit board provides the following features:

- On-board mimic of a car, with access to the following circuit components:
 - 12V battery
 - Fuse (resettable)
 - Two relays
 - Flasher unit
 - Six different types of switches
 - Interior light
 - Dashboard lights
 - Brake (stop) lights
 - Reverse (back up) lights
 - Headlamp circuits with dip/main (lo/hi) beams
 - Direction indicator (turn signal) lights
 Side and user (send and tail) lights
 - Side and rear (park and tail) lights
 10 Switched faults
 - 10 Switched faults

Product Information Sheet (Continued)

Automotive Lighting Circuits Board



- Trainer
- Trainer Storage Case
- Curriculum manual CD

Other Items Required:

707-01 Autotronics Accessory Pack

General Information:

Trainer dimensions: 290 x 210 x 50 mm (W, D, H) Packed Volume: Approx 0.007 m^3 Packed Weight: Approx 1.2 kg



Order Code: 701-01

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