

# Product Information Sheet

## Modern Auto Lighting Circuits Trainer



Our range of Autotronics boards are designed to provide a practical approach to theoretical learning, as well as developing technical skills for electronic system fault finding.

The resource is contained within an ergonomic plastic base with a hinged cover that also provides a mechanism to tilt the trainer towards the user for ease of use.

Students are set tasks that encourage them to explore CAN controlled lighting circuits practically and improve their knowledge of electrical components, circuits, signals and systems.

The trainer includes access to digital curriculum materials including practical learning tasks, as well as theory support resources.

The trainer can also be used in conjunction with our optional cloud-based software, which offers online practical 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:

- CAN Bus lighting systems
- CAN signals
- CAN control of lighting circuits
  - Headlamp
  - 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
  - Automatic lighting
- Fault finding and diagnosing CAN lighting faults

### Typical Activities Include:

- Explore CAN Bus Park, Tail, and Headlight Systems
- Investigate CAN Bus Fog Light Systems
- Explore CAN Bus Turn Signal and Hazard Warning Systems
- Explore CAN Bus Stop and Reverse Light Systems
- The CAN Data Bus
- Perform CAN Bus Park and Tail Light System Measurements
- Perform CAN Bus Headlight System Measurements
- Perform CAN Bus Fog Light System Measurements
- Perform CAN Bus Turn Signal and Hazard Warning System Measurements
- CAN Bus Stop and Reverse Light System Measurement
- CAN Data Bus Measurement
- Diagnose 8 Different CAN Bus Lighting Faults

### The circuit board provides the following features:

- On-board mimic of a car, with access to the following circuit components:
  - 12V battery
  - ECU pin outs
  - Automatic light sensor
  - Light switches
  - Brake (stop) lights
  - Reverse (back up) lights
  - Headlamp circuits with dip/main (lo/hi) beams
  - Direction indicator (turn signal) lights
  - Side and rear (park and tail) lights
  - Brake pedal switch
  - Gear lever switch

## LJ Create –Product Information Sheet (Continued)

### Modern Auto Lighting Circuits Trainer



#### Items Included:

- Trainer
- Curriculum in Digital Format

#### Other Items Required:

- Digital multimeter
- LJ Create Automotive Cloud Content (Optional)
- Computer
- Diagnostic Equipment with Oscilloscope Functions.

#### General Information:

Trainer Dimensions: 360 x 80 x 250 mm (W, H, D)

Trainer Weight: 1.2 kg

Packed Volume: Approx. 0.01 m<sup>3</sup>

Packed Weight: Approx. 2.8 kg



#### REPRESENTED BY:

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For more information visit [www.ljcreate.com](http://www.ljcreate.com)