



This electronics study card is designed to connect to the 409-01 Experiment Platform or to the 300-01/300-02 Advanced Electronics Experiment Platforms* as part of a modular electronics programme.

This practical resource introduces applications of transistors and basic transducer devices and some of their typical configurations.

This resource is ideal for use within an intermediate electronics program.

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

* **Note:** to connect to 300-01, 300-02, D3000 EXP or D3000 VIP2 you will also need a 409-02 Experiment Card Motherboard.

Practical Tasks Include the Following:

- Identify the symbol, construction, and operating characteristics of an LDR and a thermistor
- Investigate the operation of an LDR
- Investigate the operation of a thermistor
- Identify the operation of a simple transistor switch circuit
- Recognize how a Darlington pair improves the sensitivity of a switching circuit
- Investigate single transistor switch circuits
- Investigate a Darlington pair switch circuit
- Troubleshoot a single transistor switch circuit
- Troubleshoot a Darlington pair light-level alarm circuit
- Identify the difference in operation between single transistor and Darlington pair emitter follower circuits
- Investigate a loaded voltage divider
- Investigate a single transistor emitter follower
- Investigate a Darlington pair emitter follower
- Troubleshoot a Darlington pair emitter follower circuit

Items Included:

- Circuit Card
- Storage Case
- Manuals in PDF Format on CDROM

Other Items Required:

- 490-01 Experiment Platform
- Digital Multimeter
- or*
- 300-02 Advanced Electronics Experiment Platform
- 409-02 Experiment Card Motherboard

General Information:

Dimensions: 50 x 238 x 175 mm (W, H, D)
 Shipping Volume: Approx. 0.002 m³
 Shipping Weight: Approx. 0.35 kg

Order Code: 419-07

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