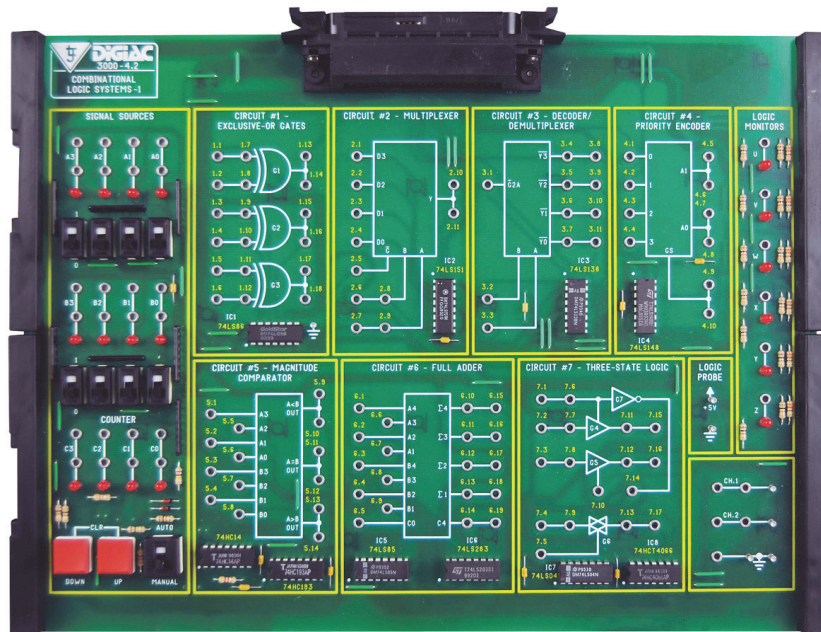


# Product Information Sheet

## Combinational Logic Study Module



LJ CREATE™  
Learning for life



This electronics study module is designed to connect to the Advanced Electronics Experiment Platform (300-01) as part of a modular electronics programme.

The study module is designed to introduce students to multiple-gate circuits and their applications through a wide range of practical activities.

Using the Advanced Electronics Experiment Platform, a range of faults to be selected and inserted into the study module circuits to develop electronic diagnostic and faultfinding techniques.

The study module is supplied with PDF manuals that provide theory materials, practical tasks, faultfinding activities, and technical information.

### Topics Include the Following:

- EX-OR and EX-NOR Gates
- Encoder and Decoder Circuits
- Multiplexer and Demultiplexer Circuits
- Priority Encoder Circuits
- Magnitude Comparator Circuits
- Full Adder Circuits
- Three State Logic Circuits

### Typical Activities Include:

- Recognize the characteristics of EX-OR/EX-NOR circuits
- Recognize the characteristics of half adder circuits
- Determine from observations the logic states for encoder and decoder circuits
- Diagnose faults in decoder circuits
- Determine from observations the logic states for multiplexer/demultiplexer circuits
- Determine from observations the logic states for priority encoder circuits
- Determine from observations the logic states for magnitude comparator circuits
- Relate inputs to outputs for a 4-input magnitude comparator
- Determine from observations the logic states for full adder circuits

- Deduce the operation of a 4-bit full adder
- Determine from observations the logic states for three state logic gate circuits
- Deduce truth tables for multiple gate three state logic circuits

### Items Included:

- Circuit Card
- Storage Case
- Curriculum Manual in PDF Format

### Other Items Required:

- 300-01 Advanced Electronics Experiment Platform
- Digital Multimeter

### General Information:

Dimensions: 81 x 323 x 256 mm (W, H, D)  
Shipping Volume: Approx 0.008 m<sup>3</sup>  
Shipping Weight: Approx 2 kg

**Order Code: 304-42**

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