

# Electricity with the Modular System

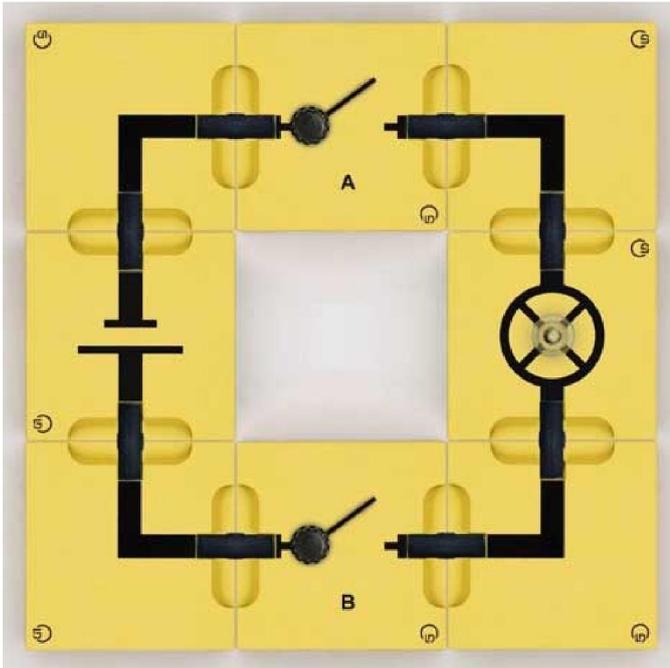
Basic Electric Circuits  
Switches in the circuit

## AND circuit

### Objective of the experiment

To demonstrate the working principle of an AND circuit.

### Setup



### Apparatus

1		539 024	Lamp socket E10, BST
1	from	505 11	Incandescent lamp 2.5 V / 0.1 A, E10
2		539 026	Change-over switch, BST
1		539 053	Battery element, BST
2		539 001	Connector blocks BST, straight
8		539 004	Connector blocks BST, 90° angle
15		539 000	Bridging plug, BST
1		301 300	Demonstration experiment frame
1		301 301	Adhesive magnetic board

### Carrying out the experiment

- Screw the incandescent lamp into the lamp socket and set up the circuit.
- Open Switch A, then open and close switch B.
- Repeat the experiment with switch A closed.
- For each switch position, check if the lamp is lit up.
- Enter your observations into the table.

### Observation

Switch A	Switch B	Lamp lit up
open	open	no
open	closed	no
closed	open	no
closed	closed	yes

### Evaluation

In the AND circuit, both switches are connected in series.  
The lamp lights up when switch A and switch B are both closed.