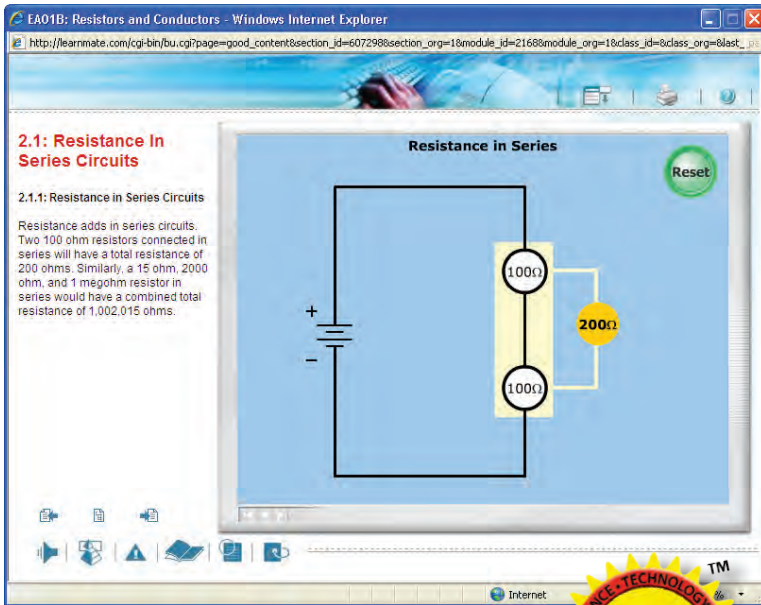


# Resistors and Conductors (EA01B)

## BASIC POWER ELECTRICITY



**Resistors and Conductors (EA01B)** teaches vital skills for troubleshooting and testing circuits including measuring resistance, calculating and measuring wire size, determining losses in a wire, and drawing resistor symbols

The skills-based curriculum builds on the concepts learned in the prerequisite course: Electrical Circuits (EA01A). Adding one new Flexponent™ panel to the Basic Power Electricity series, Resistors and Conductors (EA01B) presents hands-on activities using an industrial-grade resistors, potentiometers, rheostats and coils. Panels are easily added and exchanged allowing the workspace to be re-configured as multiple students progress through the course.

Core concepts are taught through self-paced e-learning curriculum. All the necessary resources, including printable instructions and wiring diagrams are available online, ready for use at the JobMaster Learning Station.

Instructors are also provided comprehensive resources, including a detailed instructors' guide. Teachers' versions of schematics and wiring diagrams as well as tips and tricks are all one click away.

With JobMaster, you can be sure your training program will deliver the skills needed for success in automated manufacturing careers!

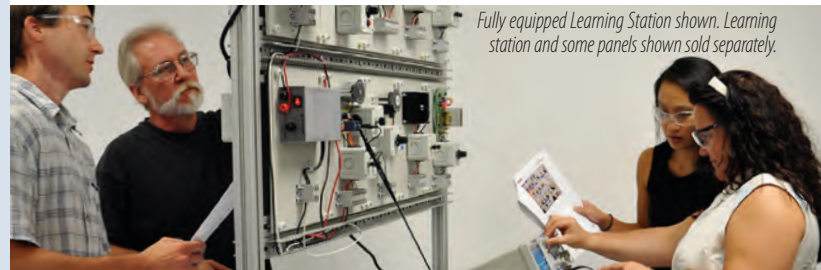


## SKILLS-BASED TRAINING

The JobMaster™ Industrial Maintenance and Mechatronics Training teaches the specialized skills required for today's industrial technicians. JobMaster™ provides a superior blended learning solution for automated manufacturing training by combining industrial-grade components with engaging e-learning content.

JobMaster™ courses are entirely skill-based, consisting of individual exercises that reproduce essential tasks performed by maintenance technicians, equipment operators, and machine repairmen. Each skill has been analyzed and field-tested by qualified maintenance technicians to teach the specific skills needed in the industrial environment.

intelitek's partners in development of the curriculum include twelve major US industrial companies, including Boeing, Caterpillar, Ford, GE, and US Steel.



Fully equipped Learning Station shown. Learning station and some panels shown sold separately.

**JobMaster™, the new standard in industrial maintenance and mechatronics training!**

POWERED BY

**LearnMate™**

JobMaster™ courses are powered by LearnMate™- intelitek's innovative e-learning platform. LearnMate's self-paced interactive content may be deployed stand-alone or through the robust learning management system (LMS). The LearnMate™ e-learning suite provides everything needed for the ultimate blended learning experience:

- SCORM-compliant interactive content
- Anytime, anywhere accessibility
- Student and class management
- Grade tracking
- Skill/competency reporting mapped to national academic skill standards

**intelitek**  <sup>®</sup>  
[www.intelitek.com](http://www.intelitek.com)

# Resistors and Conductors (EA01B)

## Materials Included

### Order #14-EA01B:

- Resistors and Conductors (EA01B) E-Learning Course and Teachers' Guide
- Flexponent™ panels:
  - E042: Resistance Panel

## Materials required (sold separately):

- JobMaster™ Learning Station      Order #10-LS00-0200
- Power Control Panel: (120V)\*      Order #10-PC04-0000

\* International step-down transformer package (Order #10-PC09-0000) required for international applications.

### Prerequisite courses:

- Electrical Circuits (EA01A)      Order #14-EA01A

## Skills Acquired



Skill 1: Measuring Resistance

Skill 2: Measuring Resistance in Series Circuits

Skill 3: Measuring Resistance in Parallel Circuits

Skill 4: Drawing and Reading Resistor Symbols

Skill 5: Testing an Adjustable Resistor

Skill 6: Measuring Wire Size

Skill 7: Applying Resistance and Wire Size

Skill 8: Calculating Wire Size

Skill 9: Determining Losses in a Conductor



## BASIC POWER ELECTRICITY

### Resistors and Conductors (EA01B)

is the second in the four-course Basic Power Electricity series, which teaches the introductory electrical skills essential for success in automated manufacturing.

### The Basic Power

#### Electricity series includes:

- Electrical Circuits (EA01A)
- Resistors and Conductors (EA01B)
- LCR Circuits (EA01C)
- Motors and Generators (EA01D)



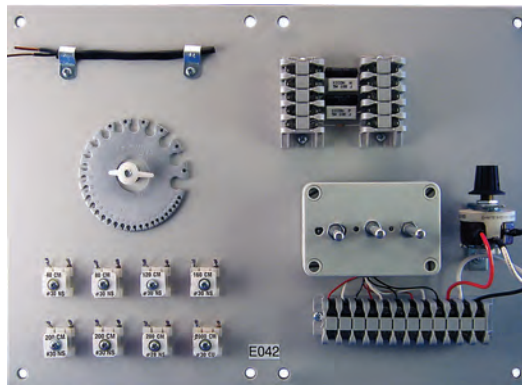
Learning Station shown fully equipped with Basic Power Electricity series panels. Learning Station and some panels sold separately.

## Panel & Hardware Specifications

All included Flexponent™ panels meet the following specifications:

- Construction: 3/8" (9.5 mm) thick environmentally stabilized, chemically resistant, non-conductive, high density polyethylene.
- Terminal strips Industry-standard recessed and insulated fasteners rated for 50-amps at 600 volts.
- Dimensions 8"W x 11.5"H x 0.375"D (203 mm x 292 mm x 9.525 mm)

### Panel E042: Resistance



- Panel Type: Double
- 1 Wire Gage, US Standard
- 1 Resistance Coils Package
- 1 Rheostat, 100ohm
- 1 5K-ohm Linear Taper Potentiometers
- 1 10K-ohm Linear Taper Potentiometers
- 1 50K-ohm Linear Taper Potentiometers
- 1 Knob, Hexagon
- 1 Resistor, Wire Wound, 10ohm, 5%, 5W, Ceramic
- 1 Resistor, Wire Wound, 400ohm, 5%, 5W
- 1 Resistor, Wire Wound, 900ohm, 5%, 96w
- 1 Resistor, Wire Wound, 10Kohm, 5%, 5W, Ceramic
- 1 Resistor, Carbon Film, 15Kohm, 5%, 1/4W

Most courses require a JobMaster™ Learning Station, sold separately.

Some courses require other hardware purchased separately or as part of prerequisite courses in the same series.

All included and required materials are noted on each product data sheet.

Affiliated with:



All specifications subject to change without notice. All trademarks are property of their respective owners.



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