

Relays, Timers & Time Delay Relays (EA08)

ELECTRICAL CONTROL SYSTEMS



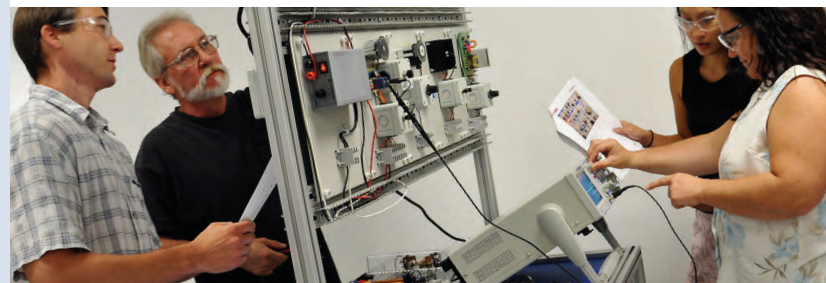
SKILLS-BASED TRAINING

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 curriculum.

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 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.

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



Fully equipped Learning Station shown. Learning station sold separately. Some panels and components shown may be sold separately.

POWERED BY



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

1.4: Skill Drill

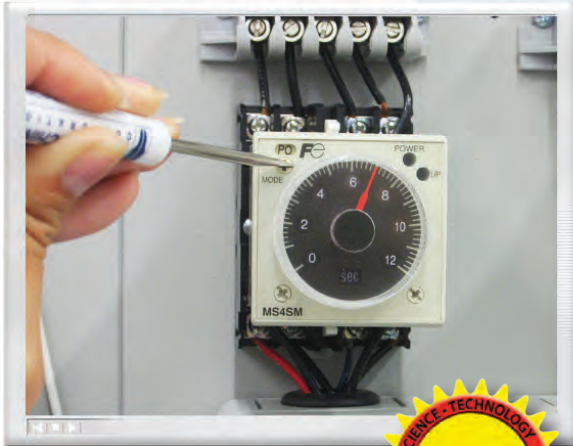
1.4.3: Programming an On-Delay Relay

3 Program the relay to operate in **on-delay mode (PO)**.

■ Set the timer to operate the relay after a 7-second delay.

4 Perform a **lockout/tagout** release.

5 Turn **ON** the Power Control Panel.



Relays, Timers & Time Delay Relays (EA08)

delivers hands-on skills in installing, programming and maintaining control devices used in industrial electric circuits. Relays, Timers & Time Delay Relays (EA08) is an add-on to Electromagnetic Motor Starters (EA07), covering eight additional skills including:

- Connecting and Programming Analog On-Delays and Off-Delay Relays
- Using Digital Relays and Motors
- Troubleshooting Relays

The skills-based curriculum presents hands-on activities using a digital relay and an electronic timer mounted on the two included Flexponent™ panels which attach to the JobMaster® Learning Station (not included). 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!

Relays, Timers & Time Delay Relays (EA08)

Materials Included

Order #14-EA08:

- Relays, Timers & Time Delay Relays (EA08) E-Learning Course and Teachers' Guide
- Flexponent™ panels:
 - E017: Digital Relay Panel
 - E041: Electric Timer Panel

Materials required (sold separately):

- JobMaster® Learning Station Order #10-LS00-0200

- Power Control Panel (220V) 3-Phase Order #10-PC06-0000

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

- Digital Multimeter (Fluke Model 115 or equivalent)

- Prerequisite Courses

- Electromagnetic Motor Starters (EA07) Order #14-EA07

Skills Acquired

- Skill 1: Connecting, Programming, and Operating Analog On-Delays and Off-Delay Relays
- Skill 2: Using Analog Relays and Motors
- Skill 3: Connecting, Programming, and Operating Digital Interval, Repeat Cycle, and One Shot Relays
- Skill 4: Using Digital Relays and Motors
- Skill 5: Connecting and Operating Electric Timers
- Skill 6: Using Electric Timers and Motors
- Skill 7: Troubleshooting Relays
- Skill 8: Performing Preventive Maintenance on Relays



ELECTRICAL CONTROL SYSTEMS



Relays, Timers & Time Delay Relays (EA08) is part of the Electrical Control Systems series, which includes comprehensive instruction in electrical control including motor controls, pilot devices and variable frequency drives.

The Electrical Control Systems series:

- Electric Motors (EA04)
- Pilot Devices (EA09)
- Variable Frequency Drives (VFD) (EA12)
- and more!



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 E017: Digital Relay



- 4 Switch, momentary, push-on/push-off, 4A, 250V
- 1 Relay, 120V 2PDT 15A LED Test PB
- 1 Socket Relay
- 1 Time Delay Relay, DPDT, Multi-function
- 1 Socket Relay, 11 Pin Octal

Panel E041: Electric Timer



- 1 Timer Mechanism, electronic

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:



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