

# EB03: Thyristor Electric Motor Drives

Catalogue Number	EB03-0000
Category	JobMaster
Duration	15 Hours

## How You Will Be Evaluated

### Skill 1: Locating an SCR and Drawing the Schematic Symbol

- SCR Connections and Schematic Symbol
- Skill Overview
- Skill Drill
- Locate the SCR
- Parts of the SCR
- Authentic Skill Assessment

### Skill 2: Testing an SCR

- SCR Operating Principles
- Skill Overview
- Skill Drill
- Set Up
- Observe SCR

### Skill 3: Connecting and Operating an SCR

- SCR Operation in an AC Circuit
- Skill Overview
- Safety
- Skill Drill
- Connect
- Set Up
- Observe DMM
- Observe Scope

**Skill 4: Confirming Full-Wave SCR Control**

Full-Wave SCR Operation

Full-Wave Rectifier

Phase-Shifting Network

Skill Overview

Skill Drill

Locate Components

Authentic Skill Assessment

**Skill 5: Connecting and Operating a Full-Wave SCR DC Motor Drive**

Skill Overview

Skill Drill

Set Up

Connect

Observe

Authentic Skill Assessment

**Skill 6: Troubleshooting a Full-Wave SCR DC Motor Drive**

Troubleshooting

Skill Overview

Skill Drill

Connect

Observe

Authentic Skill Assessment

**Skill 7: Locating the TRIAC and drawing the TRIAC Symbol**

Skill Overview

Skill Drill

Locate & Draw TRIAC

Authentic Skill Assessment

**Skill 8: Testing a TRIAC**

- TRIAC Operation
- Skill Overview
- Skill Drill
- Test
- Authentic Skill Assessment

**Skill 9: Demonstrating TRIAC Control Principles**

- Skill Overview
- Skill Drill
- Connect
- Monitor Scope
- Reverse Diode
- Authentic Skill Assessment

**Skill 10: Locating a DIAC and Drawing the Schematic Symbol**

- Triggering the TRIAC
- Skill Overview
- Skill Drill
- Locate DIAC
- Authentic Skill Assessment

**Skill 11: Connecting and Operating a DIAC-Controlled TRIAC AC Motor Dr**

- Skill Overview
- Skill Drill
- Connect the Circuit
- Set Up Scope
- Observe
- Authentic Skill Assessment

**Skill 12: Connecting and Operating a Schmitt Trigger- Controlled TRIAC**

- Skill Overview
- Skill Drill
- Connect
- Verify Jumper
- Observe
- Authentic Skill Assessment

**Skill 13: Troubleshooting a TRIAC Motor Drive**

- Skill Overview
- Skill Drill
- Connect
- Observe
- Authentic Skill Assessment

**Skill 14: Demonstrating PWM Principles**

- Solid-State Motor Drives
- Motor Control
- PWM
- DIP Circuit
- Skill Overview
- Skill Drill
- Locate Components
- Draw Waveform
- Authentic Skill Assessment

**Skill 15: Connecting and Operating a PWM DC Motor Drive**

- Connect
- Observe
- Authentic Skill Assessment

**Comprehensive Post-Test**