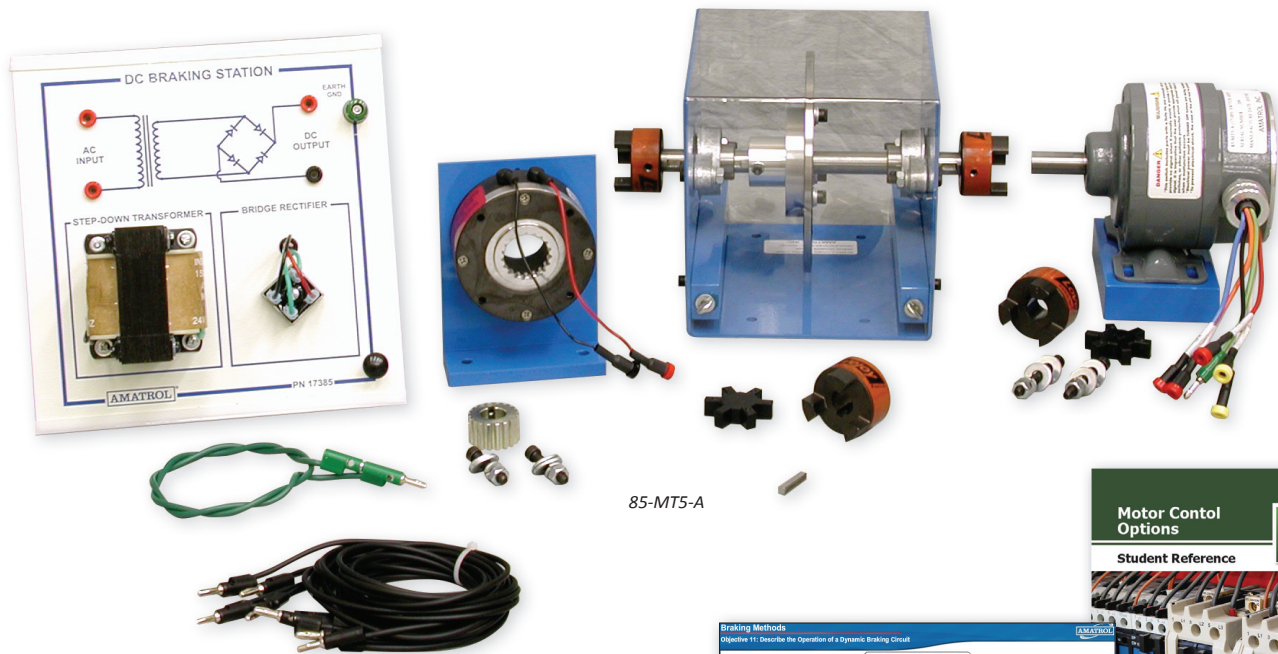
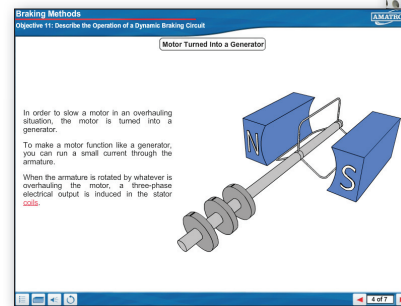


Motor Braking Learning System

85-MT5-A



85-MT5-A



Optional Interactive Multimedia



Student Reference Guide

Learning Topics:

- Braking Functions
- Drum Switch Plugging
- Pushbutton Plugging
- Timer-Controlled Plugging
- Electromagnetic Braking
- DC Injection Braking
- Dynamic Braking

Amatrol's Motor Braking Learning System (85-MT5-A) adds to the Electric Motor Control Learning System (85-MT5) to expand a learner's knowledge to the common braking methods found in industrial, commercial, and residential applications. Braking is essential to motor control when motors must be stopped and restarted multiple times. Common applications include rolling mills, conveyors, and power fans. Learners study industry-relevant skills for three of the most common braking methods: electromagnetic braking, plugging, and DC injection. Troubleshooting braking problems under realistic conditions allows learners to experience the challenge and reward that result from applied problem solving.

The 85-MT5-A includes a DC braking station with power supply, transformer and bridge rectifier mounted to a slide-in panel, inertial load module with flywheel, electromagnetic brake, plugging/anti-plugging switch, student curriculum, and instructor's guide. This system uses industrial quality components that stand up to frequent use and enable learners to better prepare for what they will encounter on the job.



Technical Data

Complete technical specifications available upon request.

Electromagnetic Brake

- Fail-safe design
- Foot mount, 24 VDC coil
- Spline connection to electric motor shaft
- 20 in-lb torque

Plugging Switch

- Programmable
- Solid-state
- Over speed/under speed
- SPDT relay output
- Tachometer function

Inertial Load Device

- Adjustable flange-mount bearings (2)
- 6 inches x .25 inches steel flywheel
- Stainless steel shaft
- Safety cover

DC Brake Station

- Power supply 24 VDC
- Plug-in ground jack
- Green ground jumper leads
- Step-Down Transformer
- Bridge Rectifier

Student Curriculum (B17402)

Instructor's Guide (C17401)

Install Guide (D17401)

Student Reference Guide (H19700)

Optional Multimedia (M17402)

Additional Requirements:

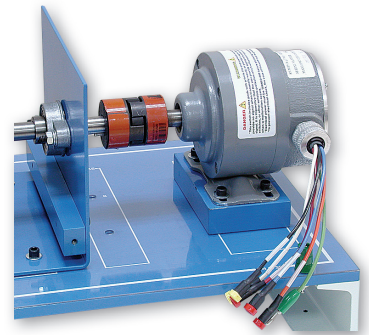
- Motor Control Learning System (85-MT5)
- Optional Multimedia Requires Computer
- Computer Requirements: <http://www.amatrol.com/support/computer-requirements/>

Utilities

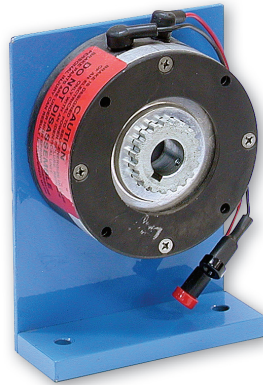
- Power Supplied by the 85-MT5

Practice Real-World Skills on Heavy-Duty Components

Plugging, stopping an electric motor by reversing its magnetic field, is a relatively simple concept with complex and dramatic results. Amatrol's 85-MT5-A covers three types of plugging: drum switch, push-button and timer-controlled. This low cost, quick method has emergency application but does create significant stress and frequently does not bring the motor to a perfect standstill.



Zero Speed Switch



Electromagnetic Brake Assembly

Extensive Braking Knowledge for Real-World Understanding

Two other kinds of braking methods covered by the 85-MT5-A are electromagnetic braking and DC braking. Learners will study about the inner-workings of electromagnetic brakes, how to operate them, how the output from a DC braking station can be used to control them, and the advantages and disadvantages of using them.

Learners then apply this knowledge by connecting and operating a motor braking circuit using an electromagnetic brake and a three-phase induction motor. They will then connect and operate a motor braking circuit using DC injection braking. The included components are heavy-duty and industrial quality ready for repeated use. The DC braking station includes a DC power source, control relay, and step-down transformer.

Practice Motor Braking Troubleshooting

The 85-MT5-A also covers motor braking troubleshooting by allowing learners to practice troubleshooting faults in an electrical motor control plugging circuit and a DC injection braking control circuit.

Extensive Motor Braking Curriculum with Unmatched Breadth and Depth

Covering the major methods of electric motor braking, the 85-MT5-A's curriculum allows learners to use the theoretical knowledge that they've gained to complete hands-on skills like connecting and operating a motor plugging circuit to brake a motor in either direction. Other major topic areas covered in the curriculum include drum switch plugging, electromagnetic braking, DC injection dynamic braking, and much more!

The 85-MT5-A also offers optional multimedia curriculum that brings this vital industrial skill to life by utilizing audio, text, 3D graphics, and strong interaction to fully engage learners.



Student Reference Guide

A sample copy of the Motor Control Options Student Reference Guide is also included with the system for your evaluation. Sourced from the system's multimedia curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfect-bound book. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training making it the perfect course takeaway.

