

## Ergonomics

On-the-job injuries can be painful and stressful for transit operators and costly for the transit agency. Absenteeism from injuries can create driver shortages and may affect the company's ability to consistently provide reliable service. Many on-the-job injuries are caused by poorly adjusted equipment or bad posture and can be prevented if operators understand and practice proper ergonomics. The *Ergonomics* course will teach operators to value good posture and explain the relationship between posture and back and shoulder injuries. Operators will be taught the importance of adjusting seats and steering wheels to accommodate body-size and shape and will also discover how properly adjusted mirrors will reduce neck and shoulder strain and decrease over-all levels of stress.

### Audience

New and veteran operators will benefit from *Ergonomics*. Supervisors, maintenance personnel, and other employees whose responsibilities include driving buses, will also benefit from reviewing the concepts that are important in maintaining proper ergonomics.

### Program Topics

Major Topics include:

- Increasing ergonomic awareness;
- Understanding how adjusting equipment will affect the operator;
- The relation between body movement and equipment adjustment;
- Causes of back injuries;
- Strategies to maintain a healthy back;
- Shoulder anatomy and preventing shoulder injuries;
- Preventing wrist injuries;
- Steering methods and proper steering wheel positioning;
- Reducing stress; and
- Stretching and strengthening exercises.

### Program Objectives

*Ergonomics* will enable operators to:

- Name factors that define ergonomics;
- Describe how a poorly adjusted seat can cause physical stress;
- Discuss the physical consequences of the steering

- wheel being too far from the body;
- Describe how an improperly adjusted mirror can cause stress on neck muscles;
- Explain how correctly adjusted equipment results in reduced physical stress;
- Identify injuries that cause lower-back pain;
- Identify ways to help prevent back pain;
- Demonstrate proper sitting posture;
- Understand how a back support reduces back strain;
- Demonstrate how to properly adjust a seat;
- Explain why keeping bulky items like a wallet in a back pocket should be avoided;
- Understand how excess stomach weight impacts the back;
- Discuss why the shoulder joint is so vulnerable to injury;
- Explain why proper posture can reduce the risk of shoulder injury;
- List the equipment that should be properly adjusted to minimize shoulder and wrist strain;
- Explain how to adjust the steering wheel for optimum wrist alignment;
- Demonstrate the correct steering methods for driving forward and for making turns; and
- Demonstrate stretches and exercises, which can be used to reduce stress.

### Meets Requirements

*Ergonomics* satisfies Federal requirements for training operators in ergonomic safety.