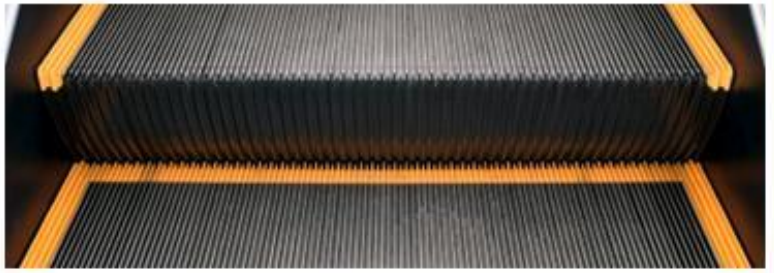
Instructor/Participant Guide



212: Escalator-Inspection & Basic Maintenance

Module 10: Operational Test

Transit Elevator/Escalator Consortium

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Icons Used in This Guide

Throughout the Instructor's Guide, the following icons indicate the type of content being presented.

Refer To		**PowerPoint**	
Multimedia		**Web based Training**	
Write		**Ask**	
Individual Activity		**Small Group Activity**	
Classroom Activity		**Duration**	

Agenda

Topic No.	Topic Title	Duration
1	Introduction	5 minutes
2	System Start Up and Shut Down • Mainline Disconnect • Key Switches • Emergency Stop Button	20 minutes
3	Speed Check • Handrail • Steps	20 minutes
4	System Check • Controller	15 minutes
5	Summary	5 minutes
	Total Time:	**1 hour**

Overview

Purpose

The purpose of this module is to:

- Review operational tests on escalator drive systems

Objectives

At the end of this chapter, the learner will be able to:

- Perform a system start up
- Perform a system shut down
- Perform an emergency stop test
- Verify handrail speed as compared to step speed
- Verify the emergency stop is functioning properly
- Verify the key switch is functioning properly

Materials

Make sure you have the following:

- Laptop (one for leader)
- Participant Guides
- PowerPoint slide deck
- LCD projector
- A17.1 Safety Code for Elevators and Escalators
- A17.2 Guide for Inspection of Elevators, Escalators and Moving Sidewalks
- A17.3 Safety Code for Existing Elevators and Escalators
- Heavy Duty Transportation System Escalator Design Guidelines (APTA RT-RP-FS 007-02)
- Field Employees' Safety Handbook
- Transit Agency Handbook

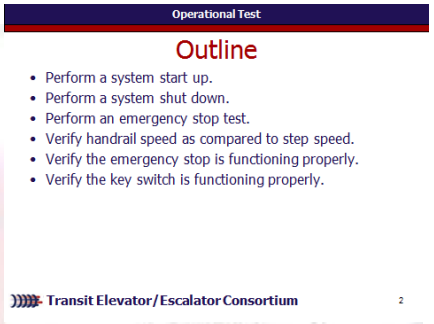
Preparation

PREPARE flip charts with the following titles:

- Class Expectations

Instructor's Notes

Slide 1



Slide 2

GAIN audience attention by introducing yourself.

WELCOME the participants to the operational test module.

ASK what does it mean to Ops Check an escalator?

DIRECT participants to the objectives on slide 2.

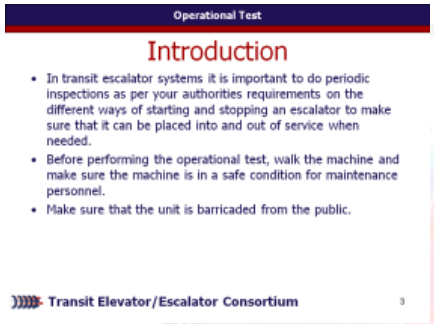
REVIEW the objectives on Slide 2.

Introduction

Welcome to the operational test module.

What does it mean to Ops Check an escalator?

Instructor's Notes



Slide 3

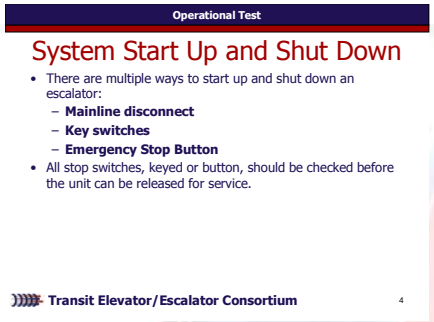
REVIEW general overview of the operational test procedure.

ASK what should be completed first, prior to performing the operational test?

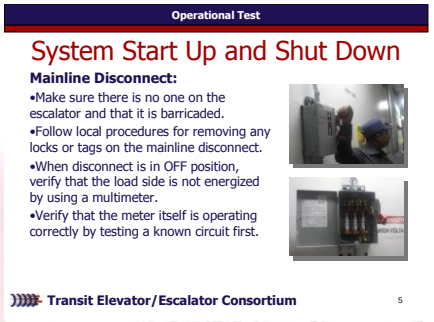
General Overview

What should be completed first, prior to performing the operational test?

Instructor's Notes



Slide 4



Slide 5

REVIEW slides 4 and 5 on Starting and Shutting Down an escalator. Begin by discussing the mainline disconnect.

ASK: participants to describe the procedure for starting or shutting down the escalator using the mainline disconnect.

Mainline Disconnect

Describe the procedure for starting or shutting down the escalator using the mainline disconnect.

Instructor's Notes

Slide 6

REVIEW slide 6 and discuss how to start/stop the escalator using the key switch.

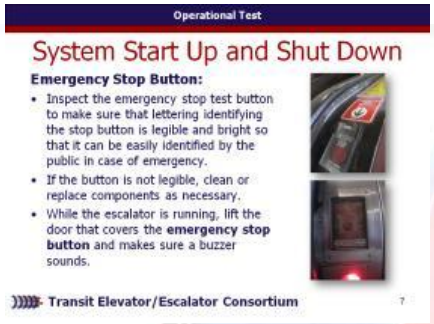
ASK once the escalator is running, in what position should the key switch be placed?

Key Switches

Once the escalator is running, in what position should the key switch be placed?

Figure 1 Fujitec Escalator Showing Key Switch

Instructor's Notes



Slide 7

REVIEW slide 7 and discuss how to test the emergency stop button.

CONTENT: Direct participants to describe in their own words how to properly stop an escalator using the mainline disconnect and emergency stop button.

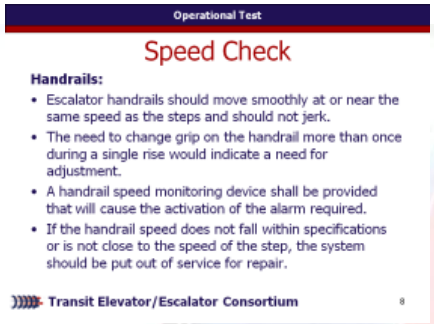
APPLICATION FEEDBACK: now that we have discussed a little about system startup and shut down, have the participants answer the following question.

ASK: *What should be done if the graphic and writing on the button are not legible?*

Emergency Stop Button

What should be done if the graphic and writing on the button are not legible?

Instructor's Notes



Slide 8

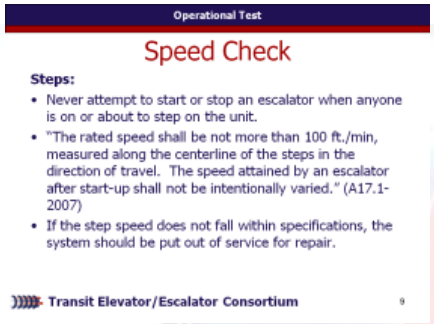
REVIEW slide 8 and review the protocol for checking the operation of handrails.

ASK: what code mandates that handrails should move smoothly at or near the same speed as steps?

Handrails

What code mandates that handrails should move smoothly at or near the same speed as steps?

Instructor's Notes



Slide 9

REVIEW slide 9 and discuss how to properly test the operation of steps.

CONTENT: Direct participants to describe in their own words the how to check handrail and step speed.

APPLICATION FEEDBACK: now that we have discussed a little about speed check, have the participants answer the following question.

ASK what is the rated speed that escalator steps shall not exceed?

Steps

What is the rated speed that escalator steps shall not exceed?

Instructor's Notes

Slide 10

REVIEW slides 10 and discuss how to check the controller system.

CONTENT: Direct participants to describe in their own words the how to check the controller for proper operation.

APPLICATION FEEDBACK: now that we have discussed a little about system checks, have the participants answer the following question.

ASK *How many magnetically operated switches must fail in order for the escalator not to start?*

Controller

How many magnetically operated switches must fail in order for the escalator not to start?

_____

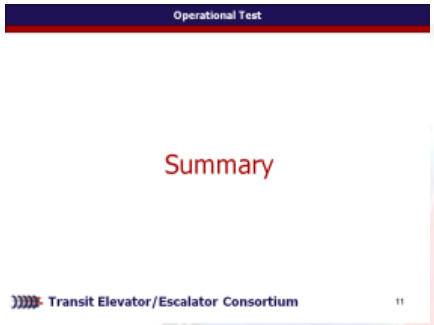
_____

_____

_____

Figure 2 Fujitec Controller

Instructor's Notes



Slide 11

REVIEW slide 11 and summarize the module.

EVALUATION and CLOSURE: Recap the main points of the module before moving on to the next topic within this course.

ASK the participants if they have any outstanding questions on what was presented.

Summary