

# Instructor Guide



## 106: Introduction and Overview to Interlockings Module 1: Overview of Interlockings

# Intro & Overview to Interlockings

*Instructor's Guide*



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For Signals Training  
Consortium Use Only

# Intro & Overview to Interlockings

Instructor's Guide



## Icons Used In This Guide



REVIEW slides



ASK



CLASSROOM ACTIVITY



SMALL GROUP ACTIVITY



INDIVIDUAL ACTIVITY



WRITE



Multimedia



REFER participants to

## Agenda

Topic #	Topic Title	Duration
1	Overview	20 minutes
2	Terminology	40 minutes
3	Regulations	10 minutes
4	Design	30 minutes
5	Types and Functions	45 Minutes
6	Field Trip	90 Minutes
7	Summary	10 Minutes
<b>Total Time:</b>		<b>245 Minutes</b>

# Intro & Overview to Interlockings

## Instructor's Guide



### Overview

**Purpose** The purpose of this module is to:

Provide the participants with an introduction to rail interlockings. This introduction will include basic interlocking terminology and regulations, as well as the purpose and function of different types of interlockings and their operation in rail signaling.

### **Objectives**

At the end of this lesson, the signal maintainer trainee will be able to:

- Define interlocking
- Define basic interlocking terminology
- Identify the applicable FRA and agency-specific standards related to interlockings
- Describe FRA and agency-specific interlocking-related safety guidelines
- Describe theory of operation and purpose of interlocking
- Describe different types of interlockings
- Describe how signal apparatus interacts in an interlocking system

### **Materials**

**Mandatory** Make sure you have the following

- PowerPoint Presentation
- Coursebook
- Quizzes
- Pencils
- White board/ Flip chart and markers
- Internet connection or downloaded videos

**Optional** You may also want the following for optional activities:

- Site specific:
  - Interlocking drawings – to project and handout
  - System map, highlighting interlockings
- Interlocking equipment to pass around the class

# Intro & Overview to Interlockings

## Instructor's Guide



Module Length: 245 min

Time remaining: 245 min

This section: 20 min ( 14 slides) Section start time: \_\_\_\_\_

Section End Time: \_\_\_\_\_

### DO

### SAY

### Materials Needed



**REVIEW** slides

**In your own words:**

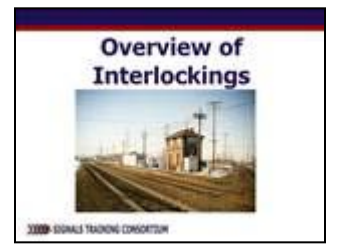
Welcome to the course on the Introduction and Overview to Interlockings.

**Advance slide.**

Railroads can be very complex creatures – with many overlapping areas where different components must work together for the same goal. It is the job of interlockings to ensure that all signal equipment – switches, signals, grade crossings, etc. – are coordinated in these overlapping areas. It only takes one piece of equipment that is not in sync to throw off the entire system.

**Advance Slide.**

✓ PPT slides 1, 2



### Instructor's Notes

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# Intro & Overview to Interlockings

## Instructor's Guide



Module Length: 245 min      Time remaining: 245 min      This section: 20 min ( 14 slides)      Section start time: \_\_\_\_\_      Section End Time: \_\_\_\_\_

### DO

### SAY

### Materials Needed



**REFER** participants to Coursebook



**ASK**

**In your own words:**  
Your coursebook covers this topic in even more detail.  
**Ask for volunteers to start reading section entitled "History and Evolution of Interlockings"**

**Advance slide as appropriate to highlight key concepts.**  
**Advance Slide.**

Interlockings consists of signals and usually include additional appliances, which are also known as apparatus, such as switches and derails, and may include railroad crossings at grade and movable bridges.  
**Advance Slide.**

✓ PPT slides 11, 12



✓ Coursebook

### Instructor's Notes

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