



APTA STANDARDS DEVELOPMENT PROGRAM

## STANDARD

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APTA Passenger Rail Equipment  
Safety Standards (PRESS) Inspection  
& Maintenance Working Group

# Passenger Car Compartment Periodic Inspection and Maintenance

**Abstract:** This standard covers basic procedures for the periodic inspection and maintenance of the passenger compartments of passenger cars, with emphasis on the maintenance of safety appliances and other safety-critical systems.

**Keywords:** emergency signs, emergency tools, passenger car compartment, passenger car compartment periodic inspection and maintenance, passenger compartment, passenger compartment maintenance, safety appliances

**Summary:** This procedure establishes a standard for passenger compartment inspection and maintenance.

**Scope and purpose:** This standard for passenger compartment inspection and maintenance applies to all passenger cars. This standard is intended for railroads in order to apply basic procedures for the periodic inspection and maintenance of passenger compartments of passenger cars, with emphasis on the maintenance of safety appliances and other safety critical systems. These systems (if applicable) are essential in the safe operation of passenger cars.

This document represents a common viewpoint of those parties concerned with its provisions, namely operating/planning agencies, manufacturers, consultants, engineers and general interest groups. The application of any standards, recommended practices or guidelines contained herein is voluntary. In some cases, federal and/or state regulations govern portions of a transit system's operations. In those cases, the government regulations take precedence over this standard. The North American Transit Service Association and its parent organization APTA recognize that for certain applications, the standards or practices, as implemented by individual agencies, may be either more or less restrictive than those given in this document.

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## Participants

The American Public Transportation Association greatly appreciates the contributions of the **Passenger Rail Equipment Safety Standards (PRESS) Inspection and Maintenance Work Group**, which provided the primary effort in the drafting of this document.

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## Introduction

*This introduction is not part of APTA PR-IM-S-005-98, Rev. 3, "Passenger Car Compartment Periodic Inspection and Maintenance."*

This introduction provides some background on the rationale used to develop this standard. This information is meant to aid in the understanding and application of this standard.

This standard describes the basic inspection and maintenance functions for passenger compartments on passenger cars. It is intended for the following:

- individuals or organizations that maintain passenger compartments on passenger cars
- individuals or organizations that contract with others for the maintenance of passenger compartments on passenger cars
- individuals or organizations that influence how passenger compartments are maintained on passenger cars

This standard is designed to help organizations incorporate safety considerations during the maintenance process. This standard is intended to satisfy the following objectives:

- Incorporate safety considerations during the inspection and maintenance process.
- Identify those maintenance standards and inspection criteria that provide a high level of passenger safety.
- Identify those maintenance standards and inspection criteria that provide a high level of crew safety.
- Identify the skills and training requirements necessary for maintenance personnel to apply these standards.

# Passenger Car Compartment Periodic Inspection and Maintenance

## 1. Frequency of conduct

The frequency of conduct of this task shall be as specified in and in compliance with the requirements of APTA PR-IM-S-013-99, Rev. 1, “Periodic Inspection and Maintenance of Passenger Cars” (see References) or its successor.

## 2. Inspection and maintenance requirements

### 2.1 Tools/materials

Standard tools carried by maintenance personnel are sufficient for this inspection task. No specific materials are required.

### 2.2 Safety/personal protective equipment

Personal protective equipment as required by the Railroad shall be worn at all times in the performance of this inspection task.

### 2.3 Training requirement

Railroads and their contractors shall develop and execute training programs that equip employees with the knowledge and skills necessary to safely and effectively perform the tasks outlined in this standard.

## 3. Inspection and maintenance procedures

**CAUTION:** Ensure that equipment is secured against uncontrolled movement before commencing inspection and maintenance procedures. Follow proper blue flag protection of worker procedures as required by the Railroad and in accordance with applicable regulations.

### 3.1 Passenger compartment

The inspection and maintenance procedure for the passenger compartment consists of the following steps:

- a) Inspect the emergency passenger door manual release mechanisms for damage/defects for safe emergency exiting.
- b) Ensure that all seat frames, seat locks, windows and baggage racks are secure.
- c) Inspect interior passenger lighting for damage/defects.
- d) Ensure that flooring is free of slipping and tripping hazards.
- e) Ensure the flooring is structurally sound, no dips or low areas creating a tripping hazard.
- f) Inspect priority seating for the disabled for proper securement and operation.
- g) Inspect for vandalism.
- h) Ensure that all seats, walls and doorways are free of sharp edges.

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- i) Inspect emergency windows for damage, and ensure that all handles and gaskets are properly in place. Test emergency windows per 49 CFR Part 239, Passenger Train Emergency Preparedness (see References).
- j) Inspect passenger windows for damage/defects.
- k) Ensure that interior handholds are in place and are properly secured and have proper clearance.
- l) If equipped with a passenger intercom (IC) or similar, inspect and check operation.
- m) If the passenger car is equipped with 120 VAC outlets or other passenger portable electronic charging interfaces, ensure the outlet covers are present and are free from damage/defects.

## **3.2 Emergency equipment**

### **3.2.1 Fire extinguishers**

The inspection and maintenance procedure for fire extinguishers consists of the following steps:

- a) Ensure that fire extinguishers are in place at proper locations.
- b) Inspect fire extinguisher securement, and ensure that it is functional.
- c) Check the seal on the extinguisher and ensure that it is not missing or broken.
- d) Check gauge and ensure that it is not damaged and that it displays the normal pressure.
- e) Check for various defects and other visible damage (e.g., corrosion to canister, hose and nozzle).
- f) Update fire extinguisher tag (if applicable).
- g) Inspect enclosures for defects and damage.

### **3.2.2 Emergency tools**

The inspection and maintenance procedure for emergency tools consists of the following steps:

- a) Inspect emergency tools and replace as required in accordance with the Operator and Maintainer Standard Operating Procedure (SOP) for type and quantity.
- b) If applicable, inspect first aid kit and replace/replenish if necessary in accordance with the Operator and Maintainer SOP for type and quantity.
- c) Ensure that emergency tools are properly secured in holder.
- d) If applicable, ensure that emergency tool cover is properly secured.

### **3.2.3 Stretcher (if applicable)**

The inspection and maintenance procedure for the stretcher (if applicable) consists of the following steps:

Verification:

- a) Check date on stretcher inspection card.
- b) Verify that the stretcher has not been removed from the sealed plastic envelope and that the plastic has not been torn.
- c) Annually update the inspection card.

If the plastic has been torn and/or there is indication that the stretcher has been removed from the envelope, perform the following procedure:

- a) Open the stretcher and ensure that the vinyl sheet is in serviceable condition.
- b) Verify that the hinges are in good condition.
- c) Inspect the wheel support bolts and ensure that they are tight.
- d) Place the wheels into the operational lock position. Ensure that they become secured in this position and will not collapse.

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- e) Place both legs into the lock or support position. Ensure that pivots move freely but are not slack. Legs must lock into this position.
- f) Wash the vinyl sheet (both sides) with an approved cleaning solution.
- g) Dry the stretcher, removing all moisture.
- h) Collapse the leg and wheel assemblies and fold the stretcher in half. Ensure that components move freely and do not bind. If necessary, use an approved lubricant at pivot joints.
- i) Place the stretcher in a plastic envelope and seal. Store the stretcher and ensure that it is properly locked and secured in place.
- j) Supply a new signed and dated inspection tag.

### **3.2.4 Emergency markings/signage**

- a) Verify that all number signs, authority logos, and emergency markings/signage are in place and legible.
- b) Inspect all emergency markings/signage, including low-level exit path markings, to ensure that they comply with all applicable federal regulations and APTA standards (see References). Replace signs as required.

### **Related APTA standards**

**APTA-PR-IM-S-013-99, Rev. 1**, “Periodic Inspection and Maintenance of Passenger Cars”

**APTA-PR-PS-S-002-98, Rev. 3**, “Emergency Signage Standard for Egress/Access of Passenger Rail Equipment”

**APTA-PR-PS-S-004-99, Rev. 2**, “Low-Location Exit Path Marking”

### **References**

This standard shall be used in conjunction with applicable federal regulations and the following publications. When the following standards are superseded by an approved revision, the revision shall apply.

Code of Federal Regulations:

- 49 CFR, Part 223, Safety Glazing Standards—Locomotives, Passenger Cars and Caboose, Subpart B—Specific Requirements
  - Subsection 223.15, Requirements for Existing Passenger Cars
- 49 CFR, Part 238, Passenger Equipment Safety Standards, Subpart B—Safety Planning and General Requirements
  - Subsection 238.112, Door Emergency Egress and Rescue Access Systems
  - Subsection 238.121, Emergency Communication
  - Subsection 238.125, Marking and Instructions for Emergency Egress and Rescue Access
  - Subsection 238.127, Low-Location Emergency Exit Path Marking
- 49 CFR, Part 239, Passenger Train Emergency Preparedness, Subpart D—Operational Tests and Inspections; Records, Recordkeeping, and Availability of Records
  - Subsection 239.301, Operational Tests and Inspections

### **Definition**

**periodic maintenance:** The performance of selected inspection and maintenance actions on systems or subsystems. Regulatory agencies or the operating authority may set the frequency of these actions. The frequency may be expressed as a function of time (i.e., days, weeks, or months) or of utilization (i.e., mileage, cycles, etc.). The scope of these inspection and maintenance actions must be in full compliance with all applicable federal, state and local regulations.

## Abbreviations and acronyms

<b>APTA</b>	American Public Transportation Association
<b>CFR</b>	Code of Federal Regulations
<b>IC</b>	Intercom
<b>NATSA</b>	North American Transportation Services Association
<b>PRESS</b>	Passenger Rail Equipment Safety Standards
<b>SOP</b>	Standard Operating Procedure

## Summary of document changes

- Document formatted to the new APTA standard format.
- Sections have been moved and renumbered.
- Scope and summary moved to the front page.
- Sections of definitions, abbreviations and acronyms added.
- Two new sections added: “Summary of document changes” and “Document history.”
- Some global changes to section headings and numberings resulted when sections dealing with references and acronyms were moved to the end of the document, along with other cosmetic changes, such as capitalization, punctuation, spelling, grammar and general flow of text.
- Addition of blue flag protection to note at the beginning of Section 3.
- Wording changes to Sections 3.1 a)–f).
- Addition of Sections 3.1 a), c), e), g), h), j), and m).
- Wording changes to Section 3.2.1 a).
- Removal of Section “Low-Location Exit Path Marking (LLEPM) (if applicable)” and incorporated into Section 3.2.4, “Emergency markings/signage” (formerly Emergency signage).
- Addition of two related APTA standards to “Related APTA standards.”
- Additional references added.
- References updated to reflect current (as of May 1st, 2017) information.
- Participants list updated.

## Document history

<b>Document Version</b>	<b>Working Group Vote</b>	<b>Public Comment/ Technical Oversight</b>	<b>CEO Approval</b>	<b>Policy &amp; Planning Approval</b>	<b>Publish Date</b>
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