

English Version

**Railway applications - Communication, signalling and processing systems - European Rail Traffic Management System - Driver-Machine Interface - Part 3: Ergonomic arrangements of non ETCS information**

Applications ferroviaires - Systèmes de signalisation, de télécommunications et de traitement - Système européen de gestion du trafic ferroviaire - Interface de conduite - Partie 3: Principes généraux pour la présentation des informations non ETCS

Bahnanwendungen - Telekommunikationstechnik, Signaltechnik und Datenverarbeitungssysteme - Europäisches Leitsystem für den Schienenverkehr - Mensch-Maschine Schnittstelle - Teil 3: Ergonomische Anordnung der Nicht-ETCS Informationen

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## European foreword

This document (CLC/TS 50459-3:2016) has been prepared by CLC/SC 9XA “Communication, signalling and processing systems”, of Technical Committee CLC/TC 9X “Electrical and electronic applications for railways”.

This document supersedes CLC/TS 50459-3:2005.

The main changes with respect to the previous edition are listed below:

- Update general principles for the presentation of non ETCS information correlated with ERA document ERA\_ERTMS\_015560.
- Update ergonomic arrangements with prEN 16186 series.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This Technical Specification has been prepared under mandates M/024 and M/334 given to CENELEC by the European Commission and the European Free Trade Association.

## Introduction

This Technical Specification should be read in conjunction with ERA\_ERTMS\_015560:2014 "ETCS Driver Machine Interface" and prEN 16186 series, "Railway applications — Driver's Cab".

This Technical Specification is Part 3 of a series with the following parts:

CLC/TS 50459-1 General principles for the presentation of ERTMS/ETCS/GSM-R information

CLC/TS 50459-2 Ergonomic arrangements of ERTMS/GSM-R information

CLC/TS 50459-3 Ergonomic arrangements of non ETCS information

This part of this Technical Specification contains the ergonomic arrangements of non ETCS information. Annex A of this part shows examples of existing NTC DMI layouts.

Annex B of this part lists the sound examples for NTC and other train functions (not exhaustive).

## 1 Scope

This Technical Specification describes from an ergonomic point of view how non ETCS information are arranged and displayed on the CCD. More specifically, it covers information that is not within the scope of ERA document ERA\_ERTMS\_015560.

This Technical Specification describes two possible technologies for implementing the ETCS DMI namely touch screen and soft key.

National systems not integrated within ETCS DMI are not within the scope of this specification.

Redundancy concepts are not within the scope of this document.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

prEN 16186-3:2014, *Railway applications — Driver's cab — Part 3: Design of displays*

CLC/TS 50459-1:2015, *Railways applications – Communication, signalling and processing systems – European Rail Traffic Management System – Driver-Machine Interface – Part 1: General principles for the presentation of ERTMS/ETCS/GSM-R information*

EUROPEAN RAILWAY AGENCY - ERTMS/ETCS - ETCS Driver Machine Interface - Reference: ERA\_ERTMS\_015560 - Version 3.4.0 - 2014-05-12

## 3 Terms, definitions and abbreviated terms

### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in CLC/TS 50459-1 and the following apply.

#### 3.1.1

##### **ETCS DMI**

CCD that allows communication between ETCS on-board equipment and the driver

#### 3.1.2

##### **ETCS DMI default window**

total image display area with the allocation of objects, text messages and buttons as described in ERA ERTMS 015560 chapter 8 and 9

#### 3.1.3

##### **NTC default window**

a NTC default window is shown in NTC operation (Level NTC, modes SN or NL)

Note 1 to entry: The layout of a NTC default window may differ to an ETCS default window.