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Elektronsko pobiranje pristojbin - Postopki za preskušanje opreme - 1. del: Opis preskusnih postopkov (ISO/DIS 14907-1:2025)

Electronic fee collection - Test procedures for user and fixed equipment - Part 1: Description of test procedures (ISO/DIS 14907-1:2025)

Elektronische Gebührenerhebung - Testverfahren für straßenseitige und fahrzeugseitige Einrichtungen - Teil 1: Beschreibung von Testverfahren (ISO/DIS 14907-1:2025)

Perception de télépéage - Procédures d'essais relatifs aux équipements embarqués et aux équipements fixes - Partie 1: Descriptions des procédures d'essais (ISO/DIS 14907-1:2025)

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ISO/DIS 14907-1

Electronic fee collection — Test procedures for user and fixed equipment —

Part 1: Description of test procedures

Perception de télépéage — Procédures d'essais relatifs aux équipements embarqués et aux équipements fixes —

Partie 1: Descriptions des procédures d'essais

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

The committee responsible for this document is ISO/TC 204, *Intelligent transport systems*.

This edition cancels and replaces the first edition of ISO 14907-1:2020, which has been technically revised.

The main changes are as follows:

- the presentation of the different test groups has been modified to consistently reflect their typical sequence (i.e. pre-, functionality- and quality-related tests);
- terms and definitions have been updated and ISO 17573-2 has been included as the primary source for harmonized terminology across electronic fee collection (EFC) standards;
- the references have been revised.

A list of all parts in the ISO 14907 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

For an electronic fee collection (EFC) system, approvals and tests are required to determine whether the system (or individual components of the system) conforms to standards and application requirements and to enable parameters such as quality, availability, and maintainability to be measured.

This document provides a toolbox of tests and procedures for the assessment and proof of EFC systems that they are suitable for specified EFC applications under specific operational conditions. Depending on the system to be tested and based on available documentation and the status of previous approvals, this document helps interested parties, such as system suppliers, operators and testing institutes, make use of already proven references and identify parameters that still need to be tested according to the specified intended use.

At the time of publication of this document, the determination of common system requirements for Europe (or any other region) has not been agreed. For this reason, no specific performance requirements are set out in this document, unless these are already determined elsewhere (such as safety or radio regulations), but instead the most important parameters that should be included in such requirements specifications are stated. Where reference to an existing test is available, this document provides that reference. This document defines only the test and test procedures, not the benchmark figures that these are to be measured against. Benchmark figures which the systems or components under test can be compared with and validated against might form the subject of a future part of this series of standards. Within the framework of the European Electronic Toll Service (EETS), this document may provide a basis for the certification of the various systems' part of the EETS, in particular for assessing their suitability for use.

This document is furthermore limited to automated (electronic) payment using a standardized dedicated short-range communication (DSRC). The scope of this document does not include manual payment, conventional money transaction, nor payment by means of sticker, vignettes, tickets, or magnetic-stripe cards, etc. The applications to which EFC is related are toll collection, road pricing, parking, and individual traffic information.

This document supports groups of operators to determine common specific performance levels and operating conditions, whilst allowing for regional variation where needed. It provides operating and environmental parameters (or classes of operating and environmental parameters) within which such systems operate without impairing interoperability.

The following guidelines have been followed when selecting the test procedures for test parameters:

- reference as far as possible to existing standardized test procedures;
- focusing on those tests that are essential to ensure that EFC equipment can exchange information and mutually use the exchanged information.

An overview of the tests and parameters provided by this document is given in [5.1](#) and [5.2](#).

A brief guide describing how to use this document is provided by [Annex A](#).

Whilst this document relates to general test procedures, some provisions relate specifically to test procedures for certification purposes. Many parts of this document are relevant internationally, but adaptations may be needed to meet regulations outside Europe before it can be accepted as an international standard like in the EU.

ISO/TS 37444 provides an examination framework for EFC charging performance.

This document relates only to the equipment of the user and the service provider as illustrated in [Figure 1](#).