
**Tractors and machinery for
agriculture and forestry — Serial
control and communications data
network —**

**Part 5:
Network management**

*Tracteurs et matériels agricoles et forestiers — Réseaux de
commande et de communication de données en série —*

Partie 5: Gestion du réseau



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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Technical requirements	2
4.1 General.....	2
4.2 Address configuration capabilities.....	2
4.2.1 General.....	2
4.2.2 Non-configurable address.....	2
4.2.3 Self-configurable address.....	3
4.2.4 Service-configurable address.....	3
4.2.5 Command-configurable address.....	3
4.3 NAME and address requirements.....	3
4.3.1 General.....	3
4.3.2 NAME.....	3
4.3.3 Address.....	6
4.4 Network-management procedures.....	7
4.4.1 General.....	7
4.4.2 Address-management messages and procedures.....	7
4.4.3 NAME management message and procedures.....	10
4.4.4 Network-error management.....	19
4.5 Network initialization.....	20
4.5.1 Acquisition of a unique address.....	20
4.5.2 Address claim requirements.....	21
4.5.3 Other basic requirements for initialization.....	21
4.5.4 Message sequences.....	21
4.5.5 CF unable to obtain an address.....	26
Annex A (informative) Examples of NAME construction	28
Bibliography	30

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 on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 19, *Agricultural electronics*.

This third edition cancels and replaces the second edition (ISO 11783-5:2011), which has been technically revised.

The main changes compared to the previous edition are as follows.

— The physical requirements are moved to ISO 11783-2.

A list of all parts in the ISO 11783 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.

Introduction

ISO 11783-1 to ISO 11783-14 specify a communications system for agricultural equipment based on ISO 11898[4][5] protocol. SAE J 1939 documents, on which parts of ISO 11783 are based, were developed jointly for use in truck and bus applications and for construction and agricultural applications. Joint documents were completed to allow electronic units that meet the truck and bus SAE J 1939 specifications to be used by agricultural and forestry equipment with minimal changes. This document is harmonized with SAE J 1939/81[6]. General information on ISO 11783 can be found in ISO 11783-1.

The purpose of ISO 11783 is to provide an open, interconnected system for on-board electronic systems. It is intended to enable electronic control units (ECUs) to communicate with each other, providing a standardized system.

Tractors and machinery for agriculture and forestry — Serial control and communications data network —

Part 5: Network management

1 Scope

This document describes the management of source addresses (SAs) for control functions (CFs) of electronic control units (ECUs), the association of addresses with the functional identification of a device and the detection and reporting of network-related errors. It also specifies procedures for initialization of network-connected ECUs.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 11783-1, *Tractors and machinery for agriculture and forestry — Serial control and communications data network — Part 1: General standard for mobile data communication*

ISO 11783-2, *Tractors and machinery for agriculture and forestry — Serial control and communications data network — Part 2: Physical layer*

ISO 11783-3, *Tractors and machinery for agriculture and forestry — Serial control and communications data network — Part 3: Data link layer*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11783-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

current NAME

CF NAME that is transmitted in its address-claimed-message

3.2

NAME management

NM

method for changing the NAME of a CF at run time

3.3

pending NAME

NAME temporarily stored by a particular CF as the result of *NAME management* (3.2) messages received from a qualified source