

# BOSCH



## CAN Specification

Version 2.0

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Imported into Framemaker 4 by:

Chuck Powers, Motorola MCTG Multiplex Applications, April 5, 1995.



### **Recital**

The acceptance and introduction of serial communication to more and more applications has led to requirements that the assignment of message identifiers to communication functions be standardized for certain applications. These applications can be realized with CAN more comfortably, if the address range that originally has been defined by 11 identifier bits is enlarged

Therefore a second message format ('extended format') is introduced that provides a larger address range defined by 29 bits. This will relieve the system designer from compromises with respect to defining well-structured naming schemes. Users of CAN who do not need the identifier range offered by the extended format, can rely on the conventional 11 bit identifier range ('standard format') further on. In this case they can make use of the CAN implementations that are already available on the market, or of new controllers that implement both formats.

In order to distinguish standard and extended format the first reserved bit of the CAN message format, as it is defined in CAN Specification 1.2, is used. This is done in such a way that the message format in CAN Specification 1.2 is equivalent to the standard format and therefore is still valid. Furthermore, the extended format has been defined so that messages in standard format and extended format can coexist within the same network.

This CAN Specification consists of two parts, with

- Part A describing the CAN message format as it is defined in CAN Specification 1.2;
- Part B describing both standard and extended message formats.

In order to be compatible with this CAN Specification 2.0 it is required that a CAN implementation be compatible with either Part A or Part B.

#### Note

CAN implementations that are designed according to part A of this or according to previous CAN Specifications, and CAN implementations that are designed according to part B of this specification can communicate with each other as long as it is not made use of the extended format.

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