NATO STANDARD

AEP-2601

STANDARDIZATION OF ELECTRICAL SYSTEMS IN TACTICAL LAND VEHICLES

Edition A Version 1
SEPTEMBER 2017

NORTH ATLANTIC TREATY ORGANIZATION

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NORTH ATLANTIC TREATY ORGANIZATION (NATO)

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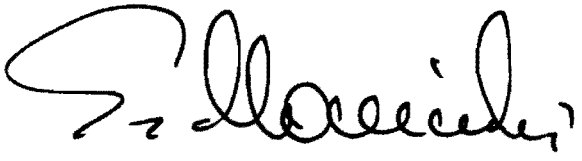
NATO LETTER OF PROMULGATION

14 September 2017

1. The enclosed Allied Engineering Publication AEP-2601, Edition A, Version 1, STANDARDIZATION OF ELECTRICAL SYSTEMS IN TACTICAL LAND VEHICLES, which has been approved by the nations in the NATO Army Armaments Group, is promulgated herewith. The agreement of nations to use this publication is recorded in STANAG 2601.

2. AEP-2601, Edition A, Version 1, is effective upon receipt.

4. This publication shall be handled in accordance with C-M(2002)60.



Edvardas MAŽEIKIS
Major General, LTUAF
Director, NATO Standardization Office

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RECORD OF RESERVATIONS

CHAPTER	RECORD OF RESERVATION BY NATIONS
Note: The reservations listed on this page include only those that were recorded at time of promulgation and may not be complete. Refer to the NATO Standardization Document Database for the complete list of existing reservations.	

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RECORD OF SPECIFIC RESERVATIONS

[nation]	[detail of reservation]
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CHAPTER 1 AIM

The aim of this standard is to:

a. standardize the nominal voltage of the electrical systems of tactical land vehicles for practical purposes such as:

i) The ability of giving or receiving electrical power support on starting the engine when necessary.

ii) In the case of a vehicle combination truck trailer or a prime mover/semi-trailer from different nations, the ability to supply the trailer or semi-trailer with electrical power for its lightning, during recovery.

b. describe the electrical loads that can affect electric and electronic systems and components in respect of their mounting location directly on or in road vehicles;

c. describe multi-voltage systems with DC intermediate circuit for military land vehicles and the electrical protection measures.

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CHAPTER 2 AGREEMENT

Participating nations agree to the following:

a. The electrical systems of all tactical land vehicles shall be 24 volt nominal direct current. Electrical loads requirements and the test criteria are described in ISO 16750-2 and VG 96916-5.

b. In well-founded exceptions, a manufacturer-specific power distribution may be used for subsystems. In that case:
   i. VG 96916-20 defines criteria for multi-voltage systems.
   ii. ISO 16750 and VG 96916-5 define test criteria for 12 V DC nominal current.
   However these systems are not covered by this STANAG.

c. At a central position a low-impedance connection between battery negative potential and vehicle structure shall be established (capable of carrying the maximum residual current due to a ground fault or a short circuit).

d. Vehicles for the international carriage of dangerous goods by road shall meet the ADR requirements concerning the construction and approval.

e. Tactical land vehicles required to meet specialist vehicle roles e.g. armament support, are to be fitted with 24 volt nominal direct current with insulated earth return.

f. On vehicles equipped with radio installations, care should be taken to prevent earth loop interfering with the radio installation.

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CHAPTER 3 DEFINITION

The following definition is used for the purpose of this standard only

Tactical Land Vehicle: A military vehicle, whether designed primarily for military use or adapted from a commercial vehicle, which has specialized military characteristics to fit it for use by forces in the field in direct connection with, or in support of, combat operations or the training of troops for such operations.

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CHAPTER 4 IMPLEMENTATION OF THE AGREEMENT

This standard is considered to be implemented when a nation has issued instructions that all future equipment procured for its forces will be manufactured in accordance with the specification detailed in this standard.

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CHAPTER 5 RELATED DOCUMENTS

- STANAG 4074/AEP 4074 – Auxiliary Power Unit Connections for Starting Tactical Land Vehicles
- ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
- ISO 16750 – Road vehicles – Environmental condition and testing for electrical and electronic equipment, (Part 1 General, Part 2 Electrical Loads)
- VG 96916 Electrical systems for land vehicles - Part 5: DC networks, technical specification, requirements for electrical systems and compliance tests on system and component level
- VG 96916 Electrical systems for land vehicles - Part 20: Multi-voltage systems with DC intermediate circuit, design and electrical protection measures, technical specification.

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