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**AMENDMENT 1**
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# Road vehicles — Electrical disturbances from conduction and coupling —

## Part 2: Electrical transient conduction along supply lines only

## AMENDMENT 1

*Véhicules routiers — Perturbations électriques par conduction et par couplage —*

*Partie 2: Transmission des perturbations électriques transitoires par conduction uniquement le long des lignes d'alimentation*

*AMENDEMENT 1*

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# Foreword

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Amendment 1 to ISO 7637-2:2004 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

# Road vehicles — Electrical disturbances from conduction and coupling —

## Part 2:
## Electrical transient conduction along supply lines only

## AMENDMENT 1

*Page 18, Annex A*

Replace the whole of Annex A with the following:

# Annex A
(informative)

# Example of test severity levels associated with functional performance status classification

## A.1 General

This annex gives examples of test severity levels which should be used in line with the principle of functional performance status classification (FPSC) described in ISO 7637-1.

## A.2 Classification of test pulse severity level

The suggested minimum and maximum severity levels are given in columns III and IV in Tables A.1 and A.2.

A selected level and test time for testing at or in between these values may be chosen in accordance with the agreement between vehicle manufacturer and supplier. In cases where no specific values are defined, it is recommended to use levels selected from columns III and IV in Tables A.1 and A.2.

### A.2.1 12 V electrical system

The recommended levels are given in Table A.1.

**Table A.1 — Suggested test levels for 12 V system**

| Test pulse [a] | Selected test level [b] | Test level, $U_s$ [c] V | | | | Minimum number of pulses or test time [f] | Burst cycle/pulse repetition time | |
|---|---|---|---|---|---|---|---|---|
| | | I | II | III min. | IV max. | | min. | max. |
| 1 | | [g] | [g] | − 75 | − 100 | 5 000 pulses | 0,5 s | 5 s |
| 2a | | [g] | [g] | + 37 | + 50 | 5 000 pulses | 0,2 s | 5 s |
| 2b | | [g] | [g] | + 10 | + 10 | 10 pulses | 0,5 s | 5 s |
| 3a | | [g] | [g] | − 112 | − 150 | 1 h | 90 ms | 100 ms |
| 3b | | [g] | [g] | + 75 | + 100 | 1 h | 90 ms | 100 ms |
| 4 | | [g] | [g] | − 6 | − 7 | > 1 pulse | [d] | [d] |
| 5 [e] | | [g] | [g] | + 65 | + 87 | > 1 pulse | [d] | [d] |

[a] Test pulses as in 5.6.

[b] Values agreed to between vehicle manufacturer and equipment supplier.

[c] The amplitudes are the values of $U_s$ as defined for each test pulse in 5.6.

[d] Since the minimum number of test pulses is 1, no pulse cycle time is given. When several pulses are to be applied, a minimum delay of 1 min between pulses shall be allowed.

[e] See 5.6.5 c). The test levels reflect the situation of load dump at generator rated speed. If a central load dump protection is used, apply test pulse 5b as defined in Figure 12 and use the values in Table 10.

[f] The number of pulses/time is for durability test purposes.

[g] The former levels I and II were deleted because they do not ensure sufficient immunity in road vehicles.