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# COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

AMENDEMENT 1 AMENDMENT 1 2001-08

COMITÉ INTERNATIONAL SPÉCIAL DES PERTURBATIONS RADIOÉLECTRIQUES INTERNATIONAL SPECIAL COMMITTEE ON RADIO INTERFERENCE

# **Amendement 1**

Compatibilité électromagnétique – Exigences pour les appareils électrodomestiques, outillages électriques et appareils analogues –

Partie 2: Immunité – Norme de famille de produits

Amendment 1

Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus –

Part 2:

Immunity - Product family standard

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CODE PRIX
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# **FOREWORD**

This amendment has been prepared by CISPR subcommittee F: Interference relating to household appliances, tools, lighting equipment and similar apparatus.

The text of this amendment is based on the following documents:

| FDIS             | Report on voting |
|------------------|------------------|
| CISPR/F/333/FDIS | CISPR/F/340/RVD  |

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2004. At this date, the publication will be

- · reconfirmed;
- withdrawn:
- · replaced by a revised edition, or
- amended.

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**CONTENTS** 

Add, after clause 10, "Bibliography"

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## 1 Scope and object

#### 1.1

Add, in the second paragraph, "by transformer" after "mains,".

Replace the existing third dash by the following:

 appliances for personal care equipped with radiators in the range from UV to IR, inclusive (this includes visible light).

#### 1.2

Amend the fifth and seventh dashes as follows:

- fifth dash:

add ", other than toys"; after "electronic music instruments";

- seventh dash:

add "other than toys" after "personal computers and similar equipment".

Add the following new dash:

- babies surveillance systems

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#### 2 Normative references

Replace the existing reference to CISPR 14 by the following:

CISPR 14-1:2000, Electromagnetic compatibility – Requirements for household appliances, electric tools and similar apparatus – Part 1: Emission

Add the following normative reference:

CISPR 16-2:1996, Specification for radio disturbance and immunity measuring apparatus and methods – Part 2: Methods of measurement of disturbances and immunity

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#### 3 Definitions

Add the following new definitions:

#### 3.5

#### safety extra-low voltage

a voltage which does not exceed 50 V a.c. or 120 V ripple free d.c. between conductors, or between any conductor and earth, in a circuit which is isolated from the supply mains by such means as a safety isolating transformer

### 3.6

#### toy

product designed for, or clearly intended for use in play by children under 14 years old.

Toys may incorporate motors, heating elements, electronic circuits and their combination.

The supply voltage of a toy shall not exceed 24 V a.c. (r.m.s.) or ripple-free d.c. and may be provided by a battery or by means of an adapter or a safety transformer connected to the mains supply.

NOTE Transformers, converters and chargers for toys are considered not to be part of the toy (see IEC 61558-2-7).

### 3.7

#### electric tov

toy having at least one function dependent on electricity

#### 3.8

# battery toy

toy which contains or uses one or more batteries as the only source of electrical energy

#### 3.9

#### transformer toy

toy which is connected to the supply mains through a transformer for toys and using the supply mains as the only source of electrical energy

#### 3.10

#### dual supply toy

toy which can be operated simultaneously or alternatively as a battery toy and a transformer toy

#### 3.11

# safety isolating transformer

transformer, the input winding of which is electrically separated from the output winding by an insulation at least equivalent to double insulation or reinforced insulation, and which is designed to supply an appliance or circuit at safety extra-low voltage

### 3.12

#### safety transformer for toys

safety isolating transformer specially designed to supply toys operating at safety extra-low voltage not exceeding 24 V

NOTE Either a.c. or d.c. or both may be delivered from the transformer unit.

#### 3.13

#### constructional kit

collection of electric, electronic or mechanical parts intended to be assembled as various toys

#### 3.14

# experimental kit

collection of electric or electronic components intended to be assembled in various combinations

NOTE The main aim of an experimental set is to facilitate the acquiring of knowledge by experiment and research. It is not intended to create a toy or equipment for practical use.

#### 3.15

#### functional toy

toy with a rated voltage not exceeding 24 V and which is a model of an appliance or installation used by adults

NOTE A product with a rated voltage exceeding 24 V, intended to be used by children under the direct supervision of an adult and which is a model of an appliance or installation and used in the same way, is known as a functional product.

#### 3.16

### video toy

toy consisting of a screen and activating means by which the child can play and interact with the picture shown on the screen.

NOTE All parts necessary for the operation of the video toy, such as control box, joy stick, key board, monitor and connections, are considered to be part of the toy.

#### 3.17

#### normal operation of toys

condition under which the toy, connected to the recommended power supply, is played with as intended or in a foreseeable way, bearing in mind the normal behaviour of children.

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# 4 Classification of apparatus

## 4.1 Category I

Delete, in the first paragraph, "for example motor operated appliances, toys, tools, heating appliances and similar electric apparatus (such as UV and IR radiators)".

Add, after the first paragraph, the following new paragraph:

Examples: motor operated appliances, lighting toys, track sets without electronic control units, tools, heating appliances, UV and IR radiators and apparatus containing components such as electromechanical switches and thermostats.

Delete the third paragraph.

# 4.2 Category II

Add, "transformer toys, dual supply toys," before "mains powered motor....."

Renumber the existing note as "NOTE 1" and add the following new note:

NOTE 2 For toys, examples include educational computers, organs, track sets with electronic control units.

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#### 4.3 Category III

Add the following note:

NOTE For toys, examples include musical soft toys, cord-controlled toys and motor-operated electronic toys.

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# Table 4 - Input and output a.c. power ports

Add, the following sentence within the frame at the bottom of table 4:

For extra low voltage a.c ports, this testing is only applicable to ports interfacing with cables whose total length may exceed 3 m according to the manufacturer's functional specification.

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# Table 7 - Input and output a.c. power ports

Add, the following sentence within the frame at the bottom of table 7:

For extra low voltage a.c ports, this testing is only applicable to ports interfacing with cables whose total length may exceed 3 m according to the manufacturer's functional specification.

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## Table 10 - Input and output a.c. power ports

Add, the following sentence within the frame at the bottom of table 10:

For extra low voltage a.c ports, this testing is only applicable to ports interfacing with cables whose total length may exceed 3 m according to the manufacturer's functional specification.

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# 7 Applicability of immunity tests

## 7.1.3 Category II

Delete the term "and construction".

# 7.2.3 Category III

Delete the second and third dashes.

After the first dash, add the following sentence:

A performance criterion C could be applied to toys not using score or data entered by the user. Examples are musical soft toys, sounding toys, etc.

Add the following new dash and additional sentence:

radio frequency electromagnetic fields, with performance criterion A.

This test is only applicable to the ride on toys operating with electronic devices.

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# 8 Conditions during testing

#### 8.1

Add, on page 29, the following paragraphs:

During the tests, toys are operated under normal operation. Transformer toys are tested with the transformer supplied with the toy. If the toy is supplied without a transformer, it shall be tested with an appropriate transformer.

In case of associated devices (for example, video toy cartridges) sold separately to be used with different appliances, the associated device shall be tested with at least one appropriate representative hosting appliance, selected by the manufacturer of the associated device, in order to check conformity of the associated device for all appliances with which it is intended to operate. The hosting appliance shall be representative of series produced appliances and shall be typical.

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Add the following new bibliography

# **Bibliography**

IEC 61558-2-7, Safety of power transformers, power supply units and similar – Part 2-7: Particular requirements for transformers for toys

CISPR 16-2:1996, Specification for radio disturbance and immunity measuring apparatus and methods – Part 2: Methods of measurement of disturbances and immunity