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**Safety of household and similar electrical appliances - Part 2: Particular requirements for battery powered tooth brushes and their charging and battery assemblies (IEC 335-2-20:1984, modified)**

Safety of household and similar electrical appliances -- Part 2: Particular requirements for battery-powered tooth-brushes and their charging and battery assemblies

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke -- Teil 2: Besondere Anforderungen für Batteriegespeiste Zahnbürsten und ihre Lade- und Batterieteile

Sécurité des appareils électrodomestiques et analogues -- Partie 2: Règles particulières pour les brosses à dents alimentées par batteries et leurs ensembles chargeurs et batteries

**Ta slovenski standard je istoveten z: EN 60335-2-20:1989**

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**ICS:**

13.120	Varnost na domu	Domestic safety
97.170	Oprema za nego telesa	Body care equipment

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EUROPEAN STANDARD  
NORME EUROPEENNE  
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October 1989

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KEY WORDS: Household electrical appliance; battery-powered tooth-brush;  
protection against electric shock; protection against fire risk;  
protection against mechanical hazard

ENGLISH VERSION

**SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES**  
**PART 2: PARTICULAR REQUIREMENTS FOR BATTERY-POWERED TOOTH-**  
**BRUSHES AND THEIR CHARGING AND BATTERY ASSEMBLIES**  
(IEC 335-2-20 (1984) 2nd edition, modified)

Sécurité des appareils électrodomestiques et analogues	Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke
Deuxième partie:	Teil 2:
Règles particulières pour les brosses à dents alimentées par batteries et leurs ensembles chargeurs et batteries (CEI 335-2-20 (1984) 2ème édition, modifiée)	Besondere Anforderungen für batteriegespeiste Zahnbursten und ihre Lade- und Batterieteile (IEC 335-2-20 (1984) 2. Ausgabe, modifiziert)

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This European Standard was ratified by CENELEC on 7 March 1989.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CENELEC Central Secretariat has the same status as the official versions.

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CENELEC

European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue Bréderode 2, B - 1000 Brussels

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Ref. No. EN 60 335-2-20:1989 E

EN 60 335-2-20

BRIEF HISTORY

The proposal to endorse the second edition of IEC Publication 335-2-20, document CENELEC/TC 61 (SEC) 456, was circulated under the enquiry procedure in September 1985.

This proposal was discussed during the Zandvoort meeting in June 1986 when it was decided to submit a draft for EN 60 335-2-20 to the voting procedure. This procedure started in September 1988.

The text of this draft was ratified by the CENELEC Technical Board on the 7th of March 1989.

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FOREWORD

R This European Standard has been prepared by the Secretariat of CENELEC Technical Committee 61.

The following dates are applicable:

- date of announcement (doa) 1989-12-01
- date of latest publication (dop) 1990-03-01
- date of withdrawal of conflicting national standards (dow) 1991-03-01

For products which have complied with the relevant national standard before 1991-03-01, as shown by the manufacturer or by a Certification Body, this previous standard may continue to apply for production until 1996-03-01.

This document supplements or modifies the corresponding clauses of IEC 335-2-20, second edition, so as to convert that standard into the European Standard EN 60 335-2-20, which has to be used in conjunction with EN 60 335-1 (1988), Safety of household and similar electrical appliances, Part 1: General requirements.

There are no special national conditions (snc) causing a deviation from this European Standard, other than those listed in Annex ZX of EN 60 335-1.

There are no national deviations from this European Standard, other than those listed in Annex ZY of EN 60 335-1.

r The following print types referred to in the preface of IEC 335-2-20 are used:

- requirements proper: in roman type (indicated in this document in the margin by R);
- test specifications: in italic type (indicated in this document in the margin by i);
- explanatory matter: in smaller roman type (indicated in this document in the margin by r).

In addition:

- instructions for modification of the reference document: in italic type (indicated in this document in the margin by i).

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EN 60 335-2-20

ENDORSEMENT NOTICE

R IEC 335-2-20, second edition (1984), applies, taking into account the following common modifications.

## COMMON MODIFICATIONS

i Foreword Delete.

Preface Delete the sentence "Consideration may be given to future editions of or amendments to IEC Publication 335-1".

Delete the text dealing with the differences existing in some countries.

## 7. MARKING

i 7.1 Add:

R - correct orientation of the battery.

r The correct orientation of the battery may be indicated by:  
 - the symbols + for the positive pole and - for the negative pole;  
 - the colours ~~red for the positive pole and black for the negative pole;~~  
 - a sketch ~~of the shape of the battery.~~

i 7.12 Add:

R The instruction sheet shall give details with regard to the method of charging the battery.

If the battery can be replaced by the user, the instruction sheet shall include the substance of the following warning:

Do not use non-rechargeable batteries.

For watertight charging units, the instruction sheet shall contain the substance of the following:

If the charging unit is damaged, it must be discarded.

## 15. MOISTURE RESISTANCE

i Replace the second line by:

R 15.3 Not applicable.

## COMMON MODIFICATIONS

22.           **CONSTRUCTION**
- i 22.2        Replace this sub-clause by:
- Replacement:
- R            Plug-in units shall be at least splash proof.  
Charging units which are intended to be fixed to a support or otherwise secured in position, shall be at least splash proof. Other charging units of type C and type E tooth-brushes and other battery units of type C tooth-brushes shall be watertight.
- i            Compliance is checked by inspection and by the relevant tests.
- 22.13        Replace this sub-clause by:
- Replacement:
- R            Watertight charging units shall be so constructed that their components are not replaceable and that, in the event of a fault, the charging unit has to be replaced.
- i            Compliance is checked by inspection.
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25.           **SUPPLY CONNECTION AND EXTERNAL FLEXIBLE CABLES AND CORDS**  
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- i 25.4        Replace the requirement by:  
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- R            Type Z attachment shall be used for watertight assemblies and may be used for other assemblies.
- i 25.6        Replace:  
245 IEC 53 by H05 RR-F  
227 IEC 52 by H03 VV-F or H03 VVH2-F
32.           **RADIATION, TOXICITY AND SIMILAR HAZARDS**
- i            Replace the text by:
- R            This clause of Part 1 is applicable except as follows:
- i 32.1        Replacement:  
r            A test specification is not yet available.

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COMMON MODIFICATIONS

i Appendix C Delete.

Appendix D Delete.

Appendix F Delete.

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COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE  
NORME DE LA CEI

INTERNATIONAL ELECTROTECHNICAL COMMISSION  
IEC STANDARD

Publication 335-2-20  
Deuxième édition — Second edition  
1984

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**Sécurité des appareils électrodomestiques et analogues**

Deuxième partie: Règles particulières pour les brosses à dents alimentées par batteries  
et leurs ensembles chargeurs et batteries

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**Safety of household and similar electrical appliances**

Part 2: Particular requirements for battery-powered tooth-brushes  
and their charging and battery assemblies



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SAFETY OF HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES

Part 2: Particular requirements for battery-powered  
tooth-brushes and their charging and battery assemblies

## FOREWORD

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

## PREFACE

This publication has been prepared by IEC Technical Committee No.61: Safety of Household and Similar Electrical Appliances. It forms the second edition of IEC Publication 335-2-20 and supersedes all previous editions.

The text of this publication is based upon the first edition issued in 1974.

This Part 2 is intended to be used in conjunction with IEC Publication 335-1. It was established on the basis of the second edition (1976) of that publication, as modified by Amendments No.1 (1977), No.2 (1979) and No.3 (1982). Consideration may be given to future editions of or amendments to IEC Publication 335-1-2-20-1995.

This Part 2 supplements or modifies the corresponding clauses in IEC Publication 335-1, so as to convert that publication into the IEC standard: Safety requirements for battery-powered tooth-brushes and their charging and battery assemblies (second edition).

Where a particular sub-clause of Part 1 is not mentioned in this Part 2, that sub-clause applies as far as is reasonable. Where this second edition states "addition", "modification" or "replacement", the relevant requirement, test specification or explanatory matter in Part 1 should be adapted accordingly.

The following differences exist in some countries:

- Class 0 tooth-brushes and units are permitted, provided they withstand higher test voltages during the electric strength test (Sub-clause 22.1).

In this publication:

- 1) the following print types are used:
  - requirements proper: in roman type;
  - test specifications: in italic type;
  - explanatory matter: in smaller roman type;
- 2) sub-clauses or figures which are additional to those in Part 1 are numbered starting from 101; additional appendices are lettered AA, BB, etc.