

# ITU-T

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

# E.161

**Amendment 1**  
(06/2014)

SERIES E: OVERALL NETWORK OPERATION,  
TELEPHONE SERVICE, SERVICE OPERATION AND  
HUMAN FACTORS

International operation – Numbering plan of the  
international telephone service

---

Arrangement of digits, letters and symbols on  
telephones and other devices that can be used for  
gaining access to a telephone network

**Amendment 1: New Annex A: Arrangement of  
digits, Korean character set and symbols**

Recommendation ITU-T E.161 (2001) – Amendment 1

# ITU-T E-SERIES RECOMMENDATIONS

## OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

### INTERNATIONAL OPERATION

Definitions	E.100–E.103
General provisions concerning Administrations	E.104–E.119
General provisions concerning users	E.120–E.139
Operation of international telephone services	E.140–E.159

### **Numbering plan of the international telephone service E.160–E.169**

International routing plan	E.170–E.179
Tones in national signalling systems	E.180–E.189
Numbering plan of the international telephone service	E.190–E.199
Maritime mobile service and public land mobile service	E.200–E.229

### OPERATIONAL PROVISIONS RELATING TO CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEPHONE SERVICE

Charging in the international telephone service	E.230–E.249
Measuring and recording call durations for accounting purposes	E.260–E.269

### UTILIZATION OF THE INTERNATIONAL TELEPHONE NETWORK FOR NON-TELEPHONY APPLICATIONS

General	E.300–E.319
Phototelegraphy	E.320–E.329
ISDN PROVISIONS CONCERNING USERS	E.330–E.349

### INTERNATIONAL ROUTING PLAN

E.350–E.399

### NETWORK MANAGEMENT

International service statistics	E.400–E.404
International network management	E.405–E.419
Checking the quality of the international telephone service	E.420–E.489

### TRAFFIC ENGINEERING

Measurement and recording of traffic	E.490–E.505
Forecasting of traffic	E.506–E.509
Determination of the number of circuits in manual operation	E.510–E.519
Determination of the number of circuits in automatic and semi-automatic operation	E.520–E.539
Grade of service	E.540–E.599
Definitions	E.600–E.649
Traffic engineering for IP-networks	E.650–E.699
ISDN traffic engineering	E.700–E.749
Mobile network traffic engineering	E.750–E.799

### QUALITY OF TELECOMMUNICATION SERVICES: CONCEPTS, MODELS, OBJECTIVES AND DEPENDABILITY PLANNING

Terms and definitions related to the quality of telecommunication services	E.800–E.809
Models for telecommunication services	E.810–E.844
Objectives for quality of service and related concepts of telecommunication services	E.845–E.859
Use of quality of service objectives for planning of telecommunication networks	E.860–E.879
Field data collection and evaluation on the performance of equipment, networks and services	E.880–E.899
OTHER	E.900–E.999

### INTERNATIONAL OPERATION

Numbering plan of the international telephone service	E.1100–E.1199
---	---------------

### NETWORK MANAGEMENT

International network management	E.4100–E.4199
----------------------------------	---------------

For further details, please refer to the list of ITU-T Recommendations.

# Recommendation ITU-T E.161

## Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network

### Amendment 1

#### New Annex A: Arrangement of digits, Korean character set and symbols

#### Summary

The objective of this Annex A to ITU-T E.161 is to provide Korean characters set for the arrangement of digits, letters and symbols on telephones and other devices.

#### History

Edition	Recommendation	Approval	Study Group	Unique ID*
1.0	ITU-T E.29	1958-11-24		<a href="http://handle.itu.int/11.1002/1000/7089">11.1002/1000/7089</a>
2.0	ITU-T E.29/Q.11	1960-12-16		<a href="http://handle.itu.int/11.1002/1000/6055">11.1002/1000/6055</a>
3.0	ITU-T E.29/Q.11	1964-06-26		<a href="http://handle.itu.int/11.1002/1000/5645">11.1002/1000/5645</a>
4.0	ITU-T E.161/Q.11	1968-10-25		<a href="http://handle.itu.int/11.1002/1000/5642">11.1002/1000/5642</a>
5.0	ITU-T E.161/Q.11	1972-12-15		<a href="http://handle.itu.int/11.1002/1000/5640">11.1002/1000/5640</a>
6.0	ITU-T E.161/Q.11	1976-10-08		<a href="http://handle.itu.int/11.1002/1000/5634">11.1002/1000/5634</a>
7.0	ITU-T E.163/Q.11 bis	1980-11-21		<a href="http://handle.itu.int/11.1002/1000/468">11.1002/1000/468</a>
7.0	ITU-T E.161/Q.11	1980-11-21		<a href="http://handle.itu.int/11.1002/1000/5555">11.1002/1000/5555</a>
8.0	ITU-T E.161/Q.11	1984-10-19		<a href="http://handle.itu.int/11.1002/1000/3145">11.1002/1000/3145</a>
8.0	ITU-T E.163/Q.11 bis	1984-10-19		<a href="http://handle.itu.int/11.1002/1000/3146">11.1002/1000/3146</a>
9.0	ITU-T E.163/Q.11	1988-11-25		<a href="http://handle.itu.int/11.1002/1000/414">11.1002/1000/414</a>
9.0	ITU-T E.161	1988-11-25		<a href="http://handle.itu.int/11.1002/1000/411">11.1002/1000/411</a>
10.0	ITU-T E.161	1993-03-12	I	<a href="http://handle.itu.int/11.1002/1000/412">11.1002/1000/412</a>
11.0	ITU-T E.161	1995-05-16		<a href="http://handle.itu.int/11.1002/1000/4450">11.1002/1000/4450</a>
12.0	ITU-T E.161	2001-02-02	2	<a href="http://handle.itu.int/11.1002/1000/5344">11.1002/1000/5344</a>
12.1	ITU-T E.161 (2001) Amd. 1	2014-06-06	2	<a href="http://handle.itu.int/11.1002/1000/12100">11.1002/1000/12100</a>

\* To access the Recommendation, type the URL <http://handle.itu.int/> in the address field of your web browser, followed by the Recommendation's unique ID. For example, <http://handle.itu.int/11.1002/1000/11830-en>.

## FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

## NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure, e.g., interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

## INTELLECTUAL PROPERTY RIGHTS

ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at <http://www.itu.int/ITU-T/ipr/>.

© ITU 2014

All rights reserved. No part of this publication may be reproduced, by any means whatsoever, without the prior written permission of ITU.

# Recommendation ITU-T E.161

## Arrangement of digits, letters and symbols on telephones and other devices that can be used for gaining access to a telephone network

### Amendment 1

#### New Annex A: Arrangement of digits, Korean Character set and symbols

*Add the following annex to the Recommendation:*

#### Annex A Arrangement of digits, Korean Character set and symbols

(This annex forms an integral part of this Recommendation.)

The basic configuration of a telephone keypad consists of 12 keys: 10 numeric keys (1, 2, 3, 4, 5, 6, 7, 8, 9, 0) used in dialling a phone number, and two control keys that are pressed to invoke specific functions.

To enter Korean consonants and vowels, three components of vowel strokes ( | , • , — ) are arranged on three keys and used in 21 vowel codes combining simple vowels ( ㅣ , ㅑ , ㅓ , ㅕ , ㅗ , ㅛ , ㅜ , ㅠ , ㅡ , ㅣ , ㅞ , ㅟ , ㅠ , ㅡ , ㅢ , ㅣ , ㅤ ) and diphthongs ( ㅑ , ㅓ , ㅕ , ㅗ , ㅛ , ㅜ , ㅠ , ㅡ , ㅣ , ㅞ , ㅟ , ㅠ , ㅡ , ㅢ , ㅣ , ㅤ ), depending on the sequence of key input. Simple consonants ( ㄱ , ㅋ , ㆁ , ㄷ , ㅌ , ㄴ , ㄹ , ㅁ , ㅂ , ㅅ , ㅇ , ㅈ , ㅊ , ㅍ , ㅎ ) are assigned to seven keys at two consonants per key. Each of the first seven consonants entered as a consonant key is pressed once, each of the second seven consonants entered as consonant key is pressed twice and each of the five double letter codes entered as consonant key is pressed three times.

Korean consonants on the keypad described herein are arranged to be entered when the same key is pressed repeatedly or in combination with a control key. The key code entered repeatedly is recognized as a consonant or a vowel unit in accordance with the Korean consonant and vowel combination rules. In case the first consonant becomes the final consonant of a syllable and the second consonant becomes the first consonant of the following syllable when both consonants are assigned to the same key, a separator is entered between the two consonants to distinguish them.

1	2 •	3 —
4 ㄱ ㅋ	5 ㄴ ㄷ	6 ㄹ ㅁ
7 ㅂ ㅅ	8 ㅇ ㅈ	9 ㅊ ㅍ
	0 ○ □	





## **SERIES OF ITU-T RECOMMENDATIONS**

Series A	Organization of the work of ITU-T
Series D	General tariff principles
<b>Series E</b>	<b>Overall network operation, telephone service, service operation and human factors</b>
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Cable networks and transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Telecommunication management, including TMN and network maintenance
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Terminals and subjective and objective assessment methods
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminals for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks, open system communications and security
Series Y	Global information infrastructure, Internet protocol aspects and next-generation networks
Series Z	Languages and general software aspects for telecommunication systems