



## **SMS API TECHNICAL SPECIFICATION**

**Version 2.1**

Provision of the Click SMS Gateway Service is dependent upon compliance with the specifications contained in this document. Although Click SMS has taken reasonable steps to ensure the accuracy and completeness of the technical specification set forth, it shall not be liable for any losses whatsoever, whether direct or indirect, including without limitation any loss of profit, loss of use, or loss of data, as a result of any errors or omissions contained herein. The information or statements in this document concerning the specification or performance of Click SMS software or hardware systems shall not constitute any binding promise or warranty.

---

**© 2013 Click SMS Ltd**

East House, 109 South Worple Way, London SW14 8TN

# Table of Contents

- 1: Introduction .....3**
  - 1.1 Version History.....3
- 2: Submitting SMS Messages.....4**
  - 2.1 Submit SMS Message – Request.....4
    - 2.1.1 Request Parameters - Required.....4
    - 2.1.2 Request Parameters - Optional .....5
    - 2.1.3 Example: Submit SMS Message - Request .....6
  - 2.2 Submit SMS Message – Response.....6
    - 2.2.1 Response Parameters.....6
    - 2.2.2 Example: Submit SMS Message - Response .....7
    - 2.2.3 Submit SMS Message – Response Status ID’s and Descriptions .....8
- 3: Checking SMS Credit .....9**
  - 3.1 Check SMS Credit – Request .....9
    - 3.1.1 Request Parameters .....9
    - 3.1.2 Example: Check SMS Credit - Request.....9
  - 3.2 Check SMS Credit - Response.....10
    - 3.2.1 Response Parameters.....10
    - 3.2.2 Example: Check SMS Credit - Response.....10
- 4: Receiving SMS Delivery Confirmation .....11**
  - 4.1 Receive SMS Delivery Confirmation – Request.....11
    - 4.1.1 Request Parameters .....11
    - 4.1.2 Example: Receive SMS Delivery Confirmation - Request .....12
    - 4.1.3 Receive SMS Delivery Confirmation - Status ID’s and Descriptions.....12
  - 4.2 Receive SMS Delivery Confirmation – Response.....13
    - 4.2.1 Example: Receive SMS Delivery Confirmation - Response .....13
- 5: Character Sets and Encodings .....14**
  - 5.1 Special Characters.....14
  - 5.2 ISO-8859- (Latin1) Character Set .....14

## 1: Introduction

This document describes the interface for the Click SMS Gateway and how to connect to our messaging platform to send Mobile Terminated SMS messages to UK and International mobile numbers.

The main features provided with the Click SMS API are as follows:

- Schedule SMS messages for future delivery.
- Send SMS messages up to 459 characters long.
- Receive SMS message delivery confirmation.
- Set message Sender ID.
- Check SMS credit.
- Set message validity period.

The SMS API Technical Specification has been designed to provide developers with a detailed description of the functionality available via the SMS API; the submission parameters and valid data values, HTTP POST request and response examples and character encoding regimes. However, if any queries arise then please contact Click SMS Customer Support – see below for details.

**Address:** East House, 109 South Worple Way, London. SW14 8TN

**Tel:** +44(0)20 8819 5034

**Email:** support@clicksms.co.uk

### 1.1 Version History

Version No.	Date	Description
1.0	30 <sup>th</sup> January 2006	Release version
1.1	7 <sup>th</sup> May 2007	Added message scheduling option
1.2	9 <sup>th</sup> June 2008	Added long SMS option
2.0	10 <sup>th</sup> July 2010	Consolidated single/multiple submissions into new Txn – submitsms. Hex encoding of LATIN1 character set added
2.1	8 <sup>th</sup> October 2012	Added message validity period

## 2: Submitting SMS Messages

A SMS message is submitted to our messaging server via a XML over HTTP POST. Received parameters and values are checked and if valid the message is queued for delivery. The HTTP response returned indicates the status of the submitted request.

If a SMS delivery confirmation is required then this is specified in the SMS message submission request together with the reply URL. The delivery confirmation is sent to this URL via a XML over HTTP POST. If the specified URL is unreachable or an invalid response is returned then further attempts are made until the correct response is returned indicating success, or the time-out period of 48 hours is reached.

**Note:** Destination URL for all requests: <https://service.clicksms.co.uk>.

### 2.1 Submit SMS Message – Request

#### 2.1.1 Request Parameters - Required

Name	Description	Example
Txn	The XML transaction name. Identifies this XML transaction to the Click SMS server. Set to <b>submitsms</b> for sending SMS messages to one or more mobile numbers.	submitsms
AccountID	Account ID.	myloginid
Password	Account password.	mypassword
Message	SMS Message text – maximum 459 characters.	The message
RateCode	1 - (UK), 2 - (International).	1
Mobiles	Container element for 'MobileNo' parameter(s).	(empty)
MobileNo	Remove the '+' sign and any leading zeros when using international codes. A UK number can start '07' or '447'.	07123456789

### 2.1.2 Request Parameters - Optional

Name	Description	Example
SenderID	The name shown on the recipient mobile handset as the sender of the message. Numeric – max length 15, Alphanumeric – max length 11 [a-z] [A-Z] [0-9] _-, no spaces. Default value: ClickSMS.	ClickSMS
ConfirmDelivery	0 – Don't confirm delivery, 1 – Confirm delivery. Default value: 0.	1
ReplyPath	The destination URL for the delivery confirmation. Required if ConfirmDelivery = 1. Do not specify the 'http://' prefix in your reply path. Maximum length – 120 characters.	<a href="http://www.myserver.co.uk/smsrec">www.myserver.co.uk/smsrec</a>
ReplyKey	The reply key text to be returned with the delivery confirmation. Optional if ConfirmDelivery = 1. Maximum 50 characters. Default value: (unique id set by Click SMS).	156243
SubmitAt	Submit for future delivery – Format: yyyyMMddhhmm. (Scheduled messages can be managed via the web service). Note: Long SMS messages are not currently supported for message scheduling.	200605201755
EnableEncoding	0 – Encoding disabled for message text, 1 – Encoding enabled for message text. Default value: 0. ISO-8859- (Latin1) character set supported – see end of document for available character encodings.	1
LongSMS	0 – Long SMS disabled, 1 – Long SMS enabled. Default value: 0. Enabling LongSMS allows messages longer than the standard 160 characters, up to 459 (3 x 153) characters in length. Note: Message scheduling is not currently supported for long SMS messages.	1
ValidityPeriod	Message validity period relative to submission date and time – from 30 minutes to 24 hours. Default when not specified is 12 hours. Format: hhmm. Note: UK Mobile Network Operators do not all use the same retry policy for checking message expiry, with the result that some messages can remain valid for up to a maximum of 30 additional minutes from the set validity period.	0230

### 2.1.3 Example: Submit SMS Message - Request

POST \* HTTP/1.1

From: [www.myserver.co.uk](http://www.myserver.co.uk)

Host: [service.clicksms.co.uk](http://service.clicksms.co.uk)

Content-Type: text/xml

Content-Length: 228

```
<Msg>
  <Txn>submitsms</Txn>
  <AccountID>myaccountid</AccountID>
  <Password>mypassword</Password>
  <Message>test message</Message>
  <RateCode>1</RateCode>
  <Mobiles>
    <MobileNo>07123456701</MobileNo>
    <MobileNo>07123456702</MobileNo>
  </Mobiles>
</Msg>
```

## 2.2 Submit SMS Message – Response

### 2.2.1 Response Parameters

Name	Description	Example
JobId	Unique id set by Click SMS.	156243
SubmitResult	Container element for the response status of each mobile number sent a message in the Submit SMS Message request.	(empty)
MobileNo	The submitted mobile number.	07123456789
StatusId	The status of the submitted message. 0 – Message submitted successfully. See below for full list of submission status codes returned and descriptions.	0
StatusText	The status ID description text.	Message submitted successfully

### 2.2.2 Example: Submit SMS Message - Response

HTTP/1.1 200 OK

Server: ClickSMS

Content-Type: text/xml

Content-Length: 322

```
<Msg>
  <JobId>20154010</JobId>
  <SubmitResult>
    <MobileNo>07123456701</MobileNo>
    <StatusId>0</StatusId>
    <StatusText>Success: Message submitted successfully</StatusText>
  </SubmitResult>
  <SubmitResult>
    <MobileNo>07123456702</MobileNo>
    <StatusId>0</StatusId>
    <StatusText>Success: Message submitted successfully</StatusText>
  </SubmitResult>
</Msg>
```

### 2.2.3 Submit SMS Message – Response Status ID's and Descriptions

Status ID	Status Text
0	Success: Message submitted successfully
1	Error: Missing or badly formatted XML parameter(s)
2	Error: Missing or badly formatted request value(s)
3	Error: Invalid account ID/password combination
4	Error: Message length too long, greater than 160 characters
5	Error: Message length too long, greater than 459 characters
6	Error: Invalid rate code supplied
7	Error: Insufficient SMS credits available for specified rate code
8	Error: Invalid or badly formatted mobile number
9	Error: Invalid sender id. Max length: 11, [a-z] [A-Z] [0-9], no spaces
10	Error: Invalid delivery confirmation indicator
11	Error: Reply path required for delivery confirmation
12	Error: Invalid or badly formatted URL reply path
13	Error: Reply path length too long. Max length 120 characters
14	Error: Reply key length too long. Max length 50 characters
15	Error: No valid mobile numbers supplied
16	Error: Too many mobile numbers supplied (Max: 500)
17	Error: Group sub-account is currently disabled
18	Error: Insufficient SMS credits available on group sub-account for specified rate code.
19	Error: Insufficient SMS credits available on group administrator account for specified rate code.
20	Error: Invalid date/time for scheduled delivery, bad format or in the past
21	Error: Scheduling is not currently available for long SMS messages
22	Error: Invalid message validity period supplied
40	Error: System error! - Contact Click SMS
41	Error: System error! - Contact Click SMS
42	Error: System error! - Contact Click SMS



## 3: Checking SMS Credit

Check the number of UK or International SMS message credits remaining on your account.

### 3.1 Check SMS Credit – Request

#### 3.1.1 Request Parameters

Name	Description	Example
Txn	The XML transaction name. Identifies this XML to transaction to the Click SMS server. Set to <b>getsmscredit</b> .	getsmscredit
AccountID	Valid login account ID.	myloginid
Password	Valid login account password.	mypassword
RateCode	1 - (UK), 2 - (International).	1

#### 3.1.2 Example: Check SMS Credit - Request

POST \* HTTP/1.1

From: [www.myserver.co.uk](http://www.myserver.co.uk)

Host: [service.clicksms.co.uk](http://service.clicksms.co.uk)

Content-Type: text/xml

Content-Length: 128

```
<Msg>
  <Txn>getsmscredit</Txn>
  <AccountID>myaccountid</AccountID>
  <Password>mypassword</Password>
  <RateCode>1</RateCode>
</Msg>
```

## 3.2 Check SMS Credit - Response

### 3.2.1 Response Parameters

Name	Description	Example
StatusId	The status of the SMS credit check. 0 – Request processed successfully.	0
RateCode	Confirmation of the rate code for the SMS credit check.	1
CreditsRemaining	The number of credits remaining for the requested rate code.	452

### 3.2.2 Example: Check SMS Credit - Response

HTTP/1.1 200 OK

Server: ClickSMS

Content-Type: text/xml

Content-Length: 92

```
<Msg>
  <StatusId>0</StatusId>
  <RateCode>1</RateCode>
  <CreditsRemaining>452</CreditsRemaining>
</Msg>
```

## 4: Receiving SMS Delivery Confirmation

If a delivery confirmation has been requested in the outbound SMS message submission then this is sent via a XML over HTTP POST to the specified reply URL.

If the specified URL is initially unreachable or returns an incorrect response then retries are attempted at the following intervals - 1 minute, 5 minutes, 10 minutes, 20 minutes, 30 minutes, and then every 30 minutes for 48 hours. After this period no further attempts are made.

### 4.1 Receive SMS Delivery Confirmation – Request

#### 4.1.1 Request Parameters

Name	Description	Example
Txn	The XML transaction name. Set to: <b>smsdelreceipt</b> .	smsdelreceipt
JobId	Unique id set by Click SMS, matches the id returned in the message submission response.	156243
MobileNo	The mobile number that received the message.	07123456701
ReplyKey	The reply key text set on message submission.	myreplykeytext
StatusId	The message delivery status. See on next page for full list of status codes returned.	0
StatusDate	The date and time of the message delivery status. Format: <code>yyyymmddhhmm</code>	200508031555
StatusText	The delivery status id description text.	Success: Message Delivered.
MsgTotalSegs	The total number of segments (1 segment = 153 characters) in a SMS message longer than 160 characters. Set to '0' for SMS messages 160 characters or less in length.	3
MsgSegNum	The segment number of a SMS message greater than 160 characters. Where segment '1' is the first part of the long SMS message. Set to '0' for SMS messages 160 characters or less in length.	1

#### 4.1.2 Example: Receive SMS Delivery Confirmation - Request

POST / HTTP/1.1  
 From: service.clicksms.co.uk  
 Host: [www.yourserver.co.uk](http://www.yourserver.co.uk)  
 Content-Type: text/xml  
 Content-Length: 210

```
<Msg>
  <Txn>smsdelreceipt</Txn>
  <JobId>156243</JobId>
  <MobileNo>07123456701</MobileNo>
  <ReplyKey>myreplykeytext</ReplyKey>
  <StatusId>0</StatusId>
  <StatusDate>200908031555</StatusDate>
  <StatusText>Success: Message delivered</StatusText>
  <MsgTotalSegs>0</MsgTotalSegs>
  <MsgSegNum>0</MsgSegNum>
</Msg>
```

#### 4.1.3 Receive SMS Delivery Confirmation - Status ID's and Descriptions

Status ID	Status Text
0	Success: Message delivered
1	Failed: Invalid, blacklisted or barred mobile number
2	Failed: Phone may be switched off or out of coverage
3	Failed: Mobile operator network error
4	Failed: Phone error; sim card full, memory exceeded etc
5	Failed: Handset incompatible or message barred by user
30	Failed: Reason unknown.

## 4.2 Receive SMS Delivery Confirmation – Response

### 4.2.1 Example: Receive SMS Delivery Confirmation - Response

HTTP/1.1 200 OK

Server: www.yourserver.co.uk

Content-Type: text/xml

Content-Length: 29

```
<Msg><Status>0</Status></Msg>
```

Note: Returning the '`<Msg><Status>0</Status></Msg>`' in the HTTP response lets the Click SMS system know that the delivery confirmation has been received by your server, therefore halting any retry attempts to resend the data.

## 5: Character Sets and Encodings

Click SMS supports the ISO-8859- (Latin1) character set with optional hex encoding. The actual characters delivered to the handset are product specific.

### 5.1 Special Characters

The following characters (literal or encoded) - part of the GSM Extended character set - use 2 characters in terms of the message length: [ ] { } \ ~ ^ | €

### 5.2 ISO-8859- (Latin1) Character Set

20	SP	SPACE	49	I	CAPITAL LETTER I
21	!	EXCLAMATION MARK	4A	J	CAPITAL LETTER J
22	"	QUOTATION MARK	4B	K	CAPITAL LETTER K
23	#	NUMBER SIGN	4C	L	CAPITAL LETTER L
24	\$	DOLLAR SIGN	4D	M	CAPITAL LETTER M
25	%	PERCENT SIGN	4E	N	CAPITAL LETTER N
26	&	AMPERSAND	4F	O	CAPITAL LETTER O
27	`	APOSTROPHE	50	P	CAPITAL LETTER P
28	(	LEFT PARENTHESIS	51	Q	CAPITAL LETTER Q
29	)	RIGHT PARENTHESIS	52	R	CAPITAL LETTER R
30	0	DIGIT ZERO	53	S	CAPITAL LETTER S
31	1	DIGIT ONE	54	T	CAPITAL LETTER T
32	2	DIGIT TWO	55	U	CAPITAL LETTER U
33	3	DIGIT THREE	56	V	CAPITAL LETTER V
34	4	DIGIT FOUR	57	W	CAPITAL LETTER W
35	5	DIGIT FIVE	58	X	CAPITAL LETTER X
36	6	DIGIT SIX	59	Y	CAPITAL LETTER Y
37	7	DIGIT SEVEN	5A	Z	CAPITAL LETTER Z
38	8	DIGIT EIGHT	5B	[	LEFT SQUARE BRACKET
39	9	DIGIT NINE	5C	\	REVERSE SOLIDUS
40	@	COMMERCIAL AT	5D	]	RIGHT SQUARE BRACKET
41	A	CAPITAL LETTER A	5E	^	CIRCUMFLEX ACCENT
42	B	CAPITAL LETTER B	5F	_	LOW LINE
43	C	CAPITAL LETTER C	60	`	GRAVE ACCENT
44	D	CAPITAL LETTER D	61	a	SMALL LETTER A
45	E	CAPITAL LETTER E	62	b	SMALL LETTER B
46	F	CAPITAL LETTER F	63	c	SMALL LETTER C
47	G	CAPITAL LETTER G	64	d	SMALL LETTER D
48	H	CAPITAL LETTER H	65	e	SMALL LETTER E

<b>66</b>	<b>f</b>	SMALL LETTER F
<b>67</b>	<b>g</b>	SMALL LETTER G
<b>68</b>	<b>h</b>	SMALL LETTER H
<b>69</b>	<b>i</b>	SMALL LETTER I
<b>6A</b>	<b>j</b>	SMALL LETTER J
<b>6B</b>	<b>k</b>	SMALL LETTER K
<b>6C</b>	<b>l</b>	SMALL LETTER L
<b>6D</b>	<b>m</b>	SMALL LETTER M
<b>6E</b>	<b>n</b>	SMALL LETTER N
<b>6F</b>	<b>o</b>	SMALL LETTER O
<b>70</b>	<b>p</b>	SMALL LETTER P
<b>71</b>	<b>q</b>	SMALL LETTER Q
<b>72</b>	<b>r</b>	SMALL LETTER R
<b>73</b>	<b>s</b>	SMALL LETTER S
<b>74</b>	<b>t</b>	SMALL LETTER T
<b>75</b>	<b>u</b>	SMALL LETTER U
<b>76</b>	<b>v</b>	SMALL LETTER V
<b>77</b>	<b>w</b>	SMALL LETTER W
<b>78</b>	<b>x</b>	SMALL LETTER X
<b>79</b>	<b>y</b>	SMALL LETTER Y
<b>7A</b>	<b>z</b>	SMALL LETTER Z
<b>7B</b>	<b>{</b>	LEFT CURLY BRACKET
<b>7C</b>	<b> </b>	VERTICAL LINE
<b>7D</b>	<b>}</b>	RIGHT CURLY BRACKET
<b>7E</b>	<b>~</b>	TILDE
<b>A0</b>		NO-BREAK SPACE
<b>A1</b>	<b>¡</b>	INVERTED EXCLAMATION
<b>A2</b>	<b>¢</b>	CENT SIGN
<b>A3</b>	<b>£</b>	POUND SIGN
<b>A4</b>	<b>¤</b>	CURRENCY SIGN
<b>A5</b>	<b>¥</b>	YEN SIGN
<b>A6</b>	<b>¦</b>	BROKEN BAR
<b>A7</b>	<b>§</b>	SECTION SIGN
<b>A8</b>	<b>¨</b>	DIAERESIS
<b>A9</b>	<b>©</b>	COPYRIGHT SIGN
<b>AA</b>	<b>ª</b>	FEMININE ORDINAL INDICATOR
<b>AB</b>	<b>«</b>	LEFT DOUBLE ANGLE QUOTATION
<b>AC</b>	<b>¬</b>	NOT SIGN
<b>AD</b>	<b>-</b>	SOFT HYPHEN
<b>AE</b>	<b>®</b>	REGISTERED SIGN
<b>AF</b>	<b>–</b>	MACRON
<b>B0</b>	<b>°</b>	DEGREE SIGN
<b>B1</b>	<b>±</b>	PLUS-MINUS SIGN
<b>B2</b>	<b>²</b>	SUPERSCRIPIT TWO
<b>B3</b>	<b>³</b>	SUPERSCRIPIT THREE
<b>B4</b>	<b>´</b>	ACUTE ACCENT
<b>B5</b>	<b>µ</b>	MICRO SIGN
<b>B6</b>	<b>¶</b>	PILCROW SIGN
<b>B7</b>	<b>·</b>	MIDDLE DOT
<b>B8</b>	<b>¸</b>	CEDILLA
<b>B9</b>	<b>¹</b>	SUPERSCRIPIT ONE
<b>BA</b>	<b>º</b>	MASCULINE ORDINAL INDICATOR
<b>BB</b>	<b>»</b>	RIGHT DOUBLE ANGLE QUOTATION
<b>BC</b>	<b>¼</b>	FRACTION ONE QUARTER
<b>BD</b>	<b>½</b>	FRACTION ONE HALF
<b>BE</b>	<b>¾</b>	FRACTION THREE QUARTERS
<b>BF</b>	<b>¿</b>	INVERTED QUESTION MARK
<b>C0</b>	<b>À</b>	CAPITAL LETTER A WITH GRAVE
<b>C1</b>	<b>Á</b>	CAPITAL LETTER A WITH ACUTE
<b>C2</b>	<b>Â</b>	CAPITAL LETTER A CIRCUMFLEX
<b>C3</b>	<b>Ã</b>	CAPITAL LETTER A WITH TILDE
<b>C4</b>	<b>Ä</b>	CAPITAL LETTER A WITH DIAERESIS
<b>C5</b>	<b>Å</b>	CAPITAL LETTER A RING ABOVE
<b>C6</b>	<b>Æ</b>	CAPITAL LETTER AE
<b>C7</b>	<b>Ç</b>	CAPITAL LETTER C WITH CEDILLA
<b>C8</b>	<b>È</b>	CAPITAL LETTER E WITH GRAVE
<b>C9</b>	<b>É</b>	CAPITAL LETTER E WITH ACUTE
<b>CA</b>	<b>Ê</b>	CAPITAL LETTER E CIRCUMFLEX
<b>CB</b>	<b>Ë</b>	CAPITAL LETTER E WITH DIAERESIS
<b>CC</b>	<b>Ì</b>	CAPITAL LETTER I WITH GRAVE
<b>CD</b>	<b>Í</b>	CAPITAL LETTER I WITH ACUTE
<b>CE</b>	<b>Î</b>	CAPITAL LETTER I CIRCUMFLEX
<b>CF</b>	<b>Ï</b>	CAPITAL LETTER I DIAERESIS
<b>D0</b>	<b>Ð</b>	CAPITAL LETTER ETH
<b>D1</b>	<b>Ñ</b>	CAPITAL LETTER N WITH TILDE
<b>D2</b>	<b>Ò</b>	CAPITAL LETTER O WITH GRAVE
<b>D3</b>	<b>Ó</b>	CAPITAL LETTER O WITH ACUTE
<b>D4</b>	<b>Ô</b>	CAPITAL LETTER O CIRCUMFLEX
<b>D5</b>	<b>Õ</b>	CAPITAL LETTER O WITH TILDE
<b>D6</b>	<b>Ö</b>	CAPITAL LETTER O DIAERESIS

<b>D7</b>	×	MULTIPLICATION SIGN	<b>EC</b>	ì	SMALL LETTER I WITH GRAVE
<b>D8</b>	ø	CAPITAL LETTER O WITH STROKE	<b>ED</b>	í	SMALL LETTER I WITH ACUTE
<b>D9</b>	Ù	CAPITAL LETTER U WITH GRAVE	<b>EE</b>	î	SMALL LETTER I CIRCUMFLEX
<b>DA</b>	Ú	CAPITAL LETTER U WITH ACUTE	<b>EF</b>	ï	SMALL LETTER I WITH DIAERESIS
<b>DB</b>	Û	CAPITAL LETTER U CIRCUMFLEX	<b>F0</b>	ð	SMALL LETTER ETH
<b>DC</b>	Ü	CAPITAL LETTER U DIAERESIS	<b>F1</b>	ñ	SMALL LETTER N WITH TILDE
<b>DD</b>	Ý	CAPITAL LETTER Y WITH ACUTE	<b>F2</b>	ò	SMALL LETTER O WITH GRAVE
<b>DE</b>	þ	CAPITAL LETTER THORN	<b>F3</b>	ó	SMALL LETTER O WITH ACUTE
<b>DF</b>	ß	SMALL LETTER SHARP S	<b>F4</b>	ô	SMALL LETTER O CIRCUMFLEX
<b>E0</b>	à	SMALL LETTER A WITH GRAVE	<b>F5</b>	õ	SMALL LETTER O WITH TILDE
<b>E1</b>	á	SMALL LETTER A WITH ACUTE	<b>F6</b>	ö	SMALL LETTER O DIAERESIS
<b>E2</b>	â	SMALL LETTER A CIRCUMFLEX	<b>F7</b>	÷	DIVISION SIGN
<b>E3</b>	ã	SMALL LETTER A WITH TILDE	<b>F8</b>	ø	SMALL LETTER O WITH STROKE
<b>E4</b>	ä	SMALL LETTER A DIAERESIS	<b>F9</b>	ù	SMALL LETTER U WITH GRAVE
<b>E5</b>	å	SMALL LETTER A RING ABOVE	<b>FA</b>	ú	SMALL LETTER U WITH ACUTE
<b>E6</b>	æ	SMALL LETTER AE	<b>FB</b>	û	SMALL LETTER U CIRCUMFLEX
<b>E7</b>	ç	SMALL LETTER C WITH CEDILLA	<b>FC</b>	ü	SMALL LETTER U DIAERESIS
<b>E8</b>	è	SMALL LETTER E WITH GRAVE	<b>FD</b>	ý	SMALL LETTER Y WITH ACUTE
<b>E9</b>	é	SMALL LETTER E WITH ACUTE	<b>FE</b>	þ	SMALL LETTER THORN
<b>EA</b>	ê	SMALL LETTER E CIRCUMFLEX	<b>FF</b>	ÿ	SMALL LETTER Y DIAERESIS
<b>EB</b>	ë	SMALL LETTER E DIAERESIS	<b>20AC</b>	€	EURO SIGN