

ETSI/TC GSM  
Release : 1/90  
Released by : ETSI/PT 12  
Correction date : October 1990

**CORRECTION NOTE**

**Recommendation GSM 03.41**

Technical Realization of Short Message Service -  
Cell Broadcast

Released version 1/90: 3.2.0  
Corrected Release version 1/90: 3.2.1

**1. Reason for Correction**

In version 3.2.0 of recommendation GSM 03.41 (Release 1/90), the description of the "default alphabet" was incorrect due to a mistake in the printing of the recommendation.

**2. Details of Change (Corrections)**

A new corrected page and a new frontpage, marked October 1990, together with the reverse pages are provided. In addition, the attached 'Document Change Control Record' (a list with the "history" of the recommendation) will be updated by PT12 when necessary and should be appended to the recommendation.

**3. Instructions to correct GSM Recommendation**

to remove		to insert	
old pages	no.of sheets	new pages	no.of sheets
		Document Change Control Record	1 1)
1 and 2	1	1 and 2	1
5 and 6	1	5 and 6	1

1) To be inserted after Release Note

Version 3.2.0 together with these corrections constitutes version 3.2.1.

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**DOCUMENT CHANGE CONTROL RECORD**

**Recommendation GSM 03.41**

Technical Realization of Short Message Service -  
Cell Broadcast

Released version 1/90: 3.2.0  
Corrected Release version 1/90: 3.2.1

Subject	Decided at	Pages Marked	Doc GSM	Pages affected
Corrected pages	GSM28	Oct. 90	334/90	1, 5

\* The reverse pages 2 and 6 are also provided to facilitate the substitution.

END OF DOCUMENT CHANGE CONTROL RECORD

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ETSI/GSM

Released by: ETSI PT12

Date: October 1990

Recommendation: GSM 03.41

Title: TECHNICAL REALISATION OF THE SHORT MESSAGE SERVICE -  
CELL BROADCAST

List of contents:

1. Scope
  2. General description
  3. Message format on the BSS-MS interface
    - 3.1 General description
    - 3.2 Message Content
- Annex 1: Default alphabet and coding scheme

Original language: English

Number of pages: 6

## 1. Scope

This recommendation describes the Short Message Service - Cell Broadcast (SMSCB). It defines the message formats over the BSS-MS interface for the Teleservice 23 as specified in GSM Rec 02.03.

## 2. General Description

SMSCB is a service in which short messages may be broadcast from a PLMN to MS's. SMSCB messages come from different sources (e.g. traffic reports, weather reports). The source and/or subject of the message is identified by a 2 octet message identifier in the SMSCB header. A sequence number in the SMSCB header enables the MS to determine when a new message of a given source/subject is available. An MS can read the header and then decide whether or not to read the rest of the message.

SMSCB messages are sent as pages of up to 82 octets. Reception of SMSCB by the MS is only possible in idle mode, and the service is designed so as to minimise the adverse impact on the operation of DRX in the MS. The geographical area over which each SMSCB message is transmitted is selected by the PLMN operator, by agreement with the provider of the information.

The timing of the messages is defined in GSM Rec 05.02. The Layer 3 support of the SMSCB is defined in GSM Rec 04.12.

## 3. Message Format on BTS-MS Interface

### 3.1 General Description

Each SMSCB message is a fixed block of 88 octets as coded in GSM 04.12. This is sent on the channel allocated as CBCH by GSM 05.02. The 88 octets of SMSCB information consist of a 6 octet header and 82 user octets.

### 3.2 Message Content

Octet No	1-2	Sequence Number
	3-4	Message Identifier
	5	Alphabet Identifier
	6	Page Parameter
	7- 88	Characters of Message

These octets are transmitted in order, starting with octet 1. The bits within these octets are numbered 0 to 7; bit 0 is the low order bit and is transmitted first.

ANNEX 1

DEFAULT ALPHABET AND CODING SCHEME

The default 7-bits coded alphabet for SMS-CB is the following:

				b7	0	0	0	0	1	1	1	1
				b6	0	0	1	1	0	0	1	1
				b5	0	1	0	1	0	1	0	1
b4	b3	b2	b1		0	1	2	3	4	5	6	7
0	0	0	0	0	è	△	SP	0	i	P	¿	p
0	0	0	1	1	£	1)	!	1	A	Q	a	q
0	0	1	0	2	\$	¢	"	2	B	R	b	r
0	0	1	1	3	¥	ƒ	#	3	C	S	c	s
0	1	0	0	4	è	λ	¤	4	D	T	d	t
0	1	0	1	5	é	Ω	%	5	E	U	e	u
0	1	1	0	6	ù	π	&	6	F	V	f	v
0	1	1	1	7	ì	Υ	'	7	G	W	g	w
1	0	0	0	8	ò	Σ	(	8	H	X	h	x
1	0	0	1	9	Ç	Θ	)	9	I	Y	i	y
1	0	1	0	10	LF	≡	*	:	J	Z	j	z
1	0	1	1	11	∅	1)	+	;	K	Ä	k	ä
1	1	0	0	12	φ	Æ	,	<	L	Ö	l	ö
1	1	0	1	13	CR	æ	-	=	M	Ñ	m	ñ
1	1	1	0	14	À	β	.	>	N	Ü	n	ü
1	1	1	1	15	á	É	/	?	O	Ş	o	à

Note: The characters marked "1)" are not used but are displayed as a space.

If a character number  $\alpha$  is noted in the following way:

$\alpha a \alpha b \alpha c \alpha d \alpha e \alpha f \alpha g$

the packing of the 7-bits characters in octets is done by completing the octets with zeros on the left.  
For examples, packing:

- one character in one octet:  
bits number:   7   6   5   4   3   2   1   0  
  
                  0   1a  1b  1c  1d  1e  1f  1g
  
- two characters in two octets:  
bits number:   7   6   5   4   3   2   1   0  
  
          2g  1a  1b  1c  1d  1e  1f  1g  
          0   0   2a  2b  2c  2d  2e  2f
  
- three characters in three octets:  
bits number:   7   6   5   4   3   2   1   0  
  
          2g  1a  1b  1c  1d  1e  1f  1g  
          3f  3g  2a  2b  2c  2d  2e  2f  
          0   0   0   3a  3b  3c  3d  3e
  
- eighth characters in seven octets:  
bits number:   7   6   5   4   3   2   1   0  
  
          2g  1a  1b  1c  1d  1e  1f  1g  
          3f  3g  2a  2b  2c  2d  2e  2f  
          4e  4f  4g  3a  3b  3c  3d  3e  
          5d  5e  5f  5g  4a  4b  4c  4d  
          6c  6d  6e  6f  6g  5a  5b  5c  
          7b  7c  7d  7e  7f  7g  6a  6b  
          8a  8b  8c  8d  8e  8f  8g  7a

The bit number zero is always transmitted first.

Therefore, in 82 octets, it is possible to pack  $(82 \times 8) / 7 = 93.7$ , that is 93 characters. The 5 remaining bits are set to zero as stated above.