



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

F.30

(03/93)

**OPERATIONS AND QUALITY OF SERVICE
TELEGRAPH SERVICES**

**USE OF VARIOUS SEQUENCES OF
COMBINATIONS FOR SPECIAL PURPOSES**

ITU-T Recommendation F.30

(Previously "CCITT Recommendation")

FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. The 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 Conference (WTSC), which meets every four years, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation F.30 was revised by the ITU-T Study Group I (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

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

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**USE OF VARIOUS SEQUENCES OF
COMBINATIONS FOR SPECIAL PURPOSES**

(Melbourne, 1988; revised Helsinki, 1993)

The CCITT,

unanimously declares that

- 1) when it is necessary to provide for switching of telegrams to different routes in semi-automatic or fully automatic telegram retransmission systems, the beginning and ending of each telegram are identified by the insertion of start-of-message and end-of-message signals;
- 2) the start-of-message signal consists of the sequence **ZCZC** in letter case;
- 3) the end-of-message signal consists of the sequence **NNNN**, in letter case;
- 4) the equipment that recognizes the start-of-message and end-of-message signals may be designed to do so by searching only for the sequence of four combinations corresponding to **ZCZC** or **NNNN** respectively (i.e. combinations 26, 3, 26, 3 or 14, 14, 14, 14 in International Telegraph Alphabet No. 2 regardless of whether they are in letter or figure case);
- 5) Table 1 lists other sequences of combinations used for special purposes.

TABLE 1/F.30

Purpose of sequence	Sequence of combination	Printed position		Recommendation reference
		Letter case	Figure case	
Connection of reperforator (or equivalent device)	3 3 3 3	CCCC	::::	S.4
Disconnection of reperforator (or equivalent device)	6 6 6 6	FFFF	(Note 1)	S.4
Suppression of delay signals	8 8 8 8	HHHH	(Note 1)	S.4, U.22
Ready for test	11 11 11 11	KKKK	((((R.79, R.79 bis
Switching a reader (or equivalent device) into circuit by remote control	11 12 11 12	KLKL	(())	S.4
End of message or enabling of delay signals	14 14 14 14	NNNN	,,,,	F.1, F.31, S.4, U.22
Change of alphabet	19 19 19 19	SSSS	' '' '	S.15
Error signal	24 24 24 24 24	XXXXX	/////	F.1 (C111)
Start of message	26 3 26 3	ZCZC	+ : + :	F.1, F.31
End of input	26 26 26 26	ZZZZ	++++	F.200
Request for automatic advice of parties cleared prematurely during the broadcast call followed by call cleared	13 13 13 13 (Note 3)	MMMM (Note 3)	(Note 2)	S.4, U.44
WRU signal	30 4			S.6
Operator recall over radiotelegraph circuit	28 27 27 27 27		(Note 6)	U.21
Stop transmission from distant auto terminal	20 20 20 ... (Note 4)	T T T ... (Note 4)	5 5 5 ...	S.4
Interrogation of distant terminal	10 (Notes 4 and 5)	J . . . (Notes 4 and 5)		S.4, S.22
Follow-on call	12 12 12 12	L L L L))))	S.4, U.43
<p>NOTES</p> <p>1 As noted in C5/F.1, the figure case of combinations 6, 7 and 8 is available for the internal service of each Administration.</p> <p>2 As noted in Recommendation U.44 this sequence is to be recognized in letter case only.</p> <p>3 A minimum of 4 Ms would clear a telex broadcast call. The usage of a 5th or more Ms is a national matter.</p> <p>4 Repeated if necessary.</p> <p>5 Function only applicable in figure case.</p> <p>6 See also Table 2/S.1.</p>				