



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**S.32**

**TELEGRAPHY**

**ALPHABETICAL TELEGRAPH TERMINAL  
EQUIPMENT**

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**ANSWER - BACK UNITS  
FOR 200- AND 300-BAUD START - STOP  
MACHINES IN ACCORDANCE WITH  
RECOMMENDATION S.30**

**ITU-T Recommendation S.30**

(Extract from the *Blue Book*)

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## NOTES

1 ITU-T Recommendation S.30 was published in Fascicle VII.1 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

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

## Recommendation S.32

### ANSWER-BACK UNITS FOR 200- AND 300-BAUD START-STOP MACHINES IN ACCORDANCE WITH RECOMMENDATION S.30

(Geneva, 1972; amended at Geneva, 1976)

The CCITT,

*considering*

- (a) that start-stop machines are capable of receiving communications without the aid of an operator;
- (b) that it may be necessary to verify the correct functioning of the line and of the distant terminal equipment,

*unanimously declares the view*

that if the use of an automatic answer-back unit is requested, it would be advisable:

- 1) to effect the operation of code transmitter by the control character ENQ, position 0/5 in the code table of International Alphabet No.5 (Recommendation T.50 [1]);
- 2) to compose the code-emission by a series of 20 signals, as follows:
  - 1 CR (position 0/13 in the code table),
  - 1 LF (position 0/10 in the code table),
  - 2 non-printing, non carriage moving signals (but which may include CR),
  - 16 signals chosen for the subscriber comprising the identification of the machine;
- 3) when the code signal does not comprise 16 characters, to distribute them by inserting at the beginning as many fill signals (such as DEL or NUL) as are necessary to make up the total of 16 signals;
- 4) that the answer-back signals follow Recommendations X.4 [2] and S.31;
- 5) that the delay between the reception of the beginning of the start unit of control character ENQ and the beginning of the start unit of the first signal of the answer-back sent by the machine should lie between one and four character periods.

#### References

- [1] CCITT Recommendation *International Alphabet No.5*, Rec. T.50.
- [2] CCITT Recommendation *General structure of signals of International Alphabet No. 5 code for data transmission over public data networks*, Rec. X.4.