



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.325

**SPECIFICATIONS OF SIGNALLING SYSTEM R1
REGISTER SIGNALLING**

RELEASE OF REGISTERS

ITU-T Recommendation Q.325

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation Q.325 was published in Fascicle VI.4 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 Q.325

3.6 RELEASE OF REGISTERS¹

3.6.1 Normal release conditions

- 1) An outgoing register shall be released when it has transmitted the ST signal.
- 2) An incoming register shall be released on the forward transmission of the ST signal to the next exchange, or when all pertinent information has been transferred to an outgoing register.

3.6.2 Abnormal release conditions

- 1) An outgoing register shall release in any of the following situations:
 - a) on failure to recognize a delay-dialling signal within 5 seconds of circuit seizure unless a longer interval is preferred for particular traffic conditions;
 - b) on failure to recognize a start-dialling (proceed-to-send) signal within 5 seconds of recognition of the delay-dialling signal unless a longer interval is preferred for particular traffic conditions;
 - c) on recognition of an unexpected tone-off (0 state) line signal subsequent to the recognition of a start-dialling (proceed-to-send) signal, but prior to completion of outpulsing. This signal sequence will occur in the event of double seizing and therefore a repeat attempt may be invoked and as a result the register may not be released prior to completion of the second attempt. (See Recommendation Q.318.);
 - d) on exceeding overall register timing of 240 seconds.
- 2) An incoming register shall release in any of the following situations:
 - a) on failure to receive the KP signal within 10 to 20 seconds of register seizure;
 - b) on failure to receive the 1st through 3rd digits within 10 to 20 seconds of receipt of the KP signal;
 - c) on failure to receive the 4th through 6th digits within 10 to 20 seconds of the registration of the 3rd digit;
 - d) on failure to receive the remaining digits and ST signal within 10 to 20 seconds of registration of the 6th digit;
 - e) on error detection such as receipt of one or more than two frequencies in a pulse;
 - f) on failure to gain access to associated switching equipment within appropriate intervals of time.

The timing intervals given in 1) and 2) above are representative values but need not necessarily apply to all types of switching systems or all traffic loads.

An abnormal release of an outgoing register on failure to receive a delay-dialling signal as discussed in 1) a) above, shall result in the circuit being locked out which maintains the tone-off (1 state) condition toward the distant end. The maintenance personnel should be alerted.

Abnormal releases should result in the return of an audible re-order (congestion) tone toward the originating end. If this condition (re-order) persists for more than 1 to 2 minutes, maintenance personnel should be alerted.

¹ As used in this Recommendation, the term register includes traditional registers in electromechanical exchanges and also the equivalent receiving device, memory and logic in stored program exchanges.