



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**M.510**

**MAINTENANCE:**

**INTERNATIONAL TRANSMISSION SYSTEMS  
(ANALOGUE)**

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**READJUSTMENT TO THE NOMINAL VALUE  
OF A REGULATED LINE SECTION  
( ON A SYMMETRIC PAIR LINE, A COAXIAL  
LINE OR A RADIO RELAY LINK )**

**ITU-T Recommendation M.510**

(Extract from the *Blue Book*)

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## NOTES

- 1 ITU-T Recommendation M.510 was published in Fascicle IV.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 M.510**

### **READJUSTMENT TO THE NOMINAL VALUE OF A REGULATED LINE SECTION (ON A SYMMETRIC PAIR LINE, A COAXIAL LINE OR A RADIO-RELAY LINK)**

After the routine measurement or clearance of the fault and when it has been ensured that no faults remain on the system, adjustments should be made as necessary to bring the levels of the line pilots and additional measuring frequencies as close as possible to their nominal value.

Making the whole adjustment in the receiving terminal station should be avoided; adjustments should be made where they are necessary, under the direction of the control or sub-control station concerned.

Methodical readjustment should be carried out when the level measured at the terminal station exceeds the maintenance limits for the carrier system. Due allowance should be made for measuring errors and for random effects which may cause slight short-term variation. The tolerance to be allowed depends on the type of system, its length and the periodicity of the measurements.

For example, the following tolerances may be allowed:

- a) in the case of a system with continuous gain control an adjustment should be made only if an improvement of at least 0.3 dB can be obtained;
- b) in the case of a system with step-by-step gain control allow a permissible tolerance of  $\pm$  (one-half the gain control step  $\pm$  0.3 dB).