



INTERNATIONAL TELECOMMUNICATION UNION

**ITU-T**

TELECOMMUNICATION  
STANDARDIZATION SECTOR  
OF ITU

**V.92**

**Corrigendum 1**  
(07/2003)

SERIES V: DATA COMMUNICATION OVER THE  
TELEPHONE NETWORK

Simultaneous transmission of data and other signals

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Enhancements to Recommendation V.90

**Corrigendum 1**

ITU-T Recommendation V.92 (2000) – Corrigendum 1

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# **ITU-T Recommendation V.92**

## **Enhancements to Recommendation V.90**

### **Corrigendum 1**

#### **Summary**

This corrigendum improves the description of certain aspects of the Modem-on-Hold functions.

#### **Source**

Corrigendum 1 to ITU-T Recommendation V.92 (2000) was prepared by ITU-T Study Group 16 (2001-2004) and approved under the ITU-T Recommendation A.8 procedure on 14 July 2003.

## FOREWORD

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# ITU-T Recommendation V.92

## Enhancements to Recommendation V.90

### Corrigendum 1

#### Introduction

The following amendments are to be added to V.92 in order to clarify certain aspects of the Modem-on-Hold functions.

#### 1) Clause 9.7.1.2

*Replace the text of clause 9.7.1.2 with the following:*

##### 9.7.1.2 Responding to retrain

After detecting Tone A for more than 50 ms, the digital modem shall turn OFF circuit 106, clamp circuit 104 to binary one and transmit silence for  $70 \pm 5$  ms. The digital modem shall then transmit Tone B, condition its receiver to detect a Tone A phase reversal, and proceed in accordance with the full Phase 2 start-up procedure.

NOTE – A receiver should be aware of MH signals and not interpret them incorrectly as a retrain indication signal phase reversal.

#### 2) Clause 9.10.1

*Replace 9.10.1 with the following:* This text supersedes the version contained in Amendment 1 to V.92.

##### 9.10.1 Transmission of MH sequences

If Tone RT is transmitted before an MH sequence its duration shall be at least 20 ms if the tone was preceded by another MH sequence, or at least 50 ms otherwise. The transition from data mode to an initiating MH sequence shall be performed by transmitting  $70 \pm 5$  ms of silence followed by Tone RT. If the initiating modem has detected the responding modem's Tone RT signal before the end of the silence period, then the initiating modem may optionally skip Tone RT and proceed directly to transmitting the MH sequence. MH sequences shall be transmitted repeatedly, with the first 4 fill bits immediately following the last 4 fill bits of the preceding sequence. Each transmitted sequence shall be completed before transmitting other signals.

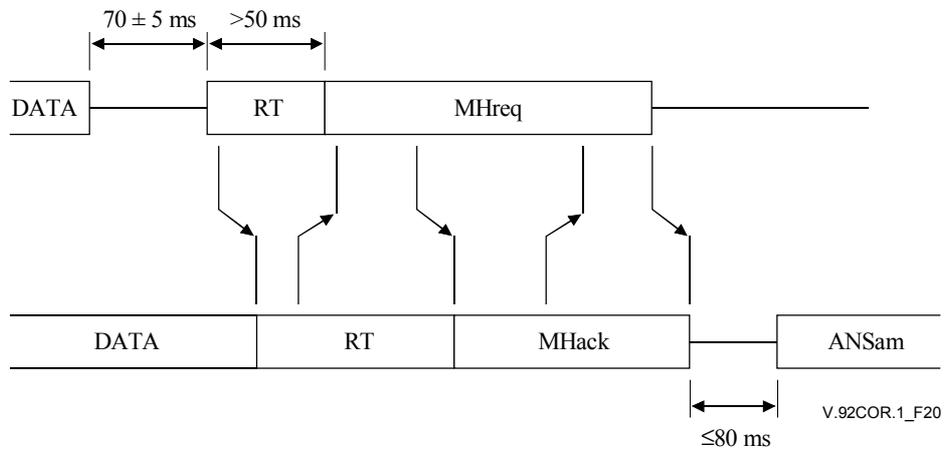
#### 3) Clause 9.10.2.1

*Add this new paragraph following the third paragraph of clause 9.10.2.1:*

The reversal of roles does not affect or imply any change to the link layer protocols (e.g. V.42) and the modem should continue in its previous negotiated state for these layers.

4) **Figure 20/V.92 – Modem-on-hold request acknowledged**

Replace Figure 20 with the following version: This figure supersedes the version contained in Amendment 1 to V.92.



**Figure 20/V.92 – Modem-on-hold request acknowledged**



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