

AMENDMENT

ETS 300 012

A1

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**This amendment A1 modifies
the European Telecommunication Standard ETS 300 012 (1992)**

**Integrated Services Digital Network (ISDN);
Basic user-network interface
Layer 1 specification and test principles**

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Foreword

This Amendment to ETS 300 012 (1992) has been produced by the Transmission and Multiplexing (TM) Technical Committee of the European Telecommunications Standards Institute (ETSI).

Amendments

Page 18, figure 3

Replace figure 3 with the following figure:

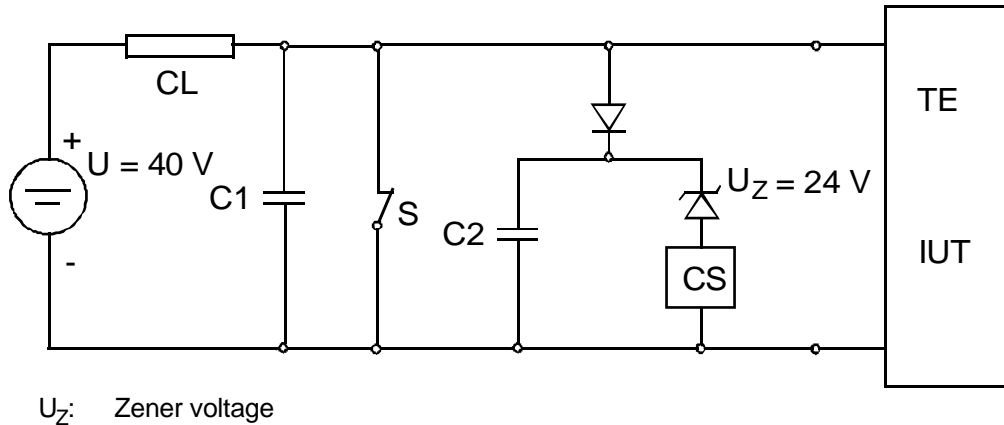
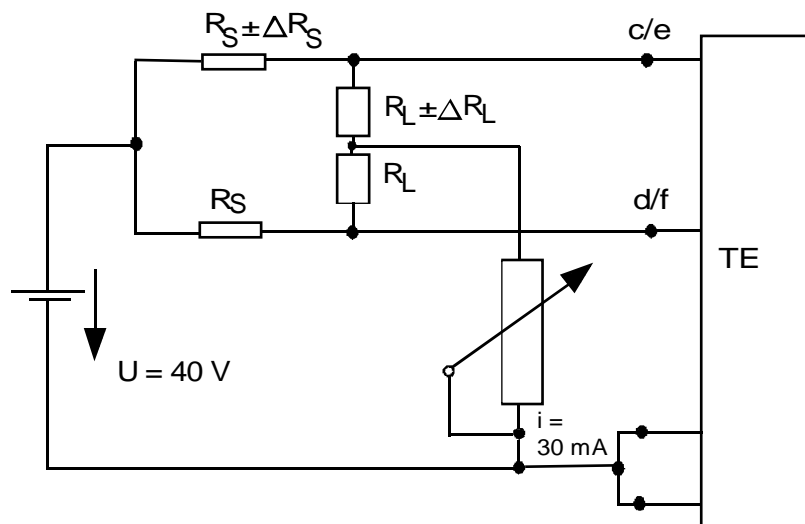


Figure 3: Power start up test for TE

Page 22, figure 7

Replace figure 7 with the following figure:



$R_S = 6 \Omega$	$\Delta R_S = 360 \text{ m}\Omega$
$R_L = 5 \Omega$	$\Delta R_L = 300 \text{ m}\Omega$

$$X = \frac{\Delta R_S}{2R_S} = \frac{\Delta R_L}{2R_L}$$

Figure 7: Test circuit for applied current unbalance

Page 26, table A.1, table entry A.5.3.2

Replace the table entry A.5.3.2 with the following:

A.5.3.2	<p>TEs not powered across the interface</p> <p><The following text is added: A TE using the automatic assignment procedure shall implement the disconnect detector for detection of power source 1 or 2 to establish the connection status.</p>	
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Page 29, table A.1, table entry A.6.2.6.1

Replace the final paragraph for table entry A.6.2.6.1 with the following:

	<p><In both paragraphs the term "INFO2" shall be replaced (four times) by: "INFO2 or INFO4"></p>	
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Page 31, table A.1, table entry A.8.5.4

The statement ("St.-ment") for table entry A.8.5.4 shall be changed to "I" (Informative), as follows:

Clause/ subclause	Title <Comment>	St.- ment
A.8.5.4	Pulse unbalance <The text under this subclause is replaced by:	<u>I</u>

Page 46, subclause D.1.4.4

Replace the fourth instance of "N/R" with "D.3.2.2.1.1", producing a table as follows:

Modes	Clause/ subclause	Test defined in Clause/subclause
Types of wiring configuration	A.4	N/R
Point-to-point configuration	A.4.1	N/R
Point-to-multipoint configuration	A.4.2	N/R
Polarity Integrity (figure 2/I.430 [2])	A.4.3	D.3.2.2.1.1
Interface Ia	A.4.4	N/R
TE associated wiring	A.4.5	N/R

Page 50, subclause D.1.4.11

Replace the final instance of "N/R" with "D.5.1.4.1" and add test for Annex B, Clause B.6, producing a table as follows:

Requirements	Clause/ subclause	Test defined in Clause/subclause
Test loopbacks defined for the basic user-network interface	Annex A App. I	N/R
Additional requirements applicable to the explicit S reference point	B.1 to B.5 B.6	N/R D.5.1.4.2
TE design to minimise power disturbance	Annex C	<u>D.5.1.4.1</u>

Page 57, subclause D.3.2.1

Replace the table in subclause D.3.2.1 with the following table (modifying states 9, 16, 22, 40 and 46 and adding NOTE 9):

Table to subclause D.3.2.1

STAT E NO	CURRENT STATE	STIMULUS	NOTE	NEXT STAT E	INFO SENT	COMMENT
1	F1	Power	1	F2	I0	Detection of power
2	F1	T3 expires	2/6	F1	I0	No action
3	F2	Loss of Power		F1	I0	Return to inactive state
4	F2	Rx INFO 0	4	F3	I0	Assume deactivated state
5	F2	Rx INFO 2		F6	I3	Synchronised state
6	F2	Rx INFO 4		F7	I3	Activated
7	F2	Rx any signal	3	F2	I0	No action
8	F2	T3 expires	6	F2	I0	No action
9	F3	Loss of Power	9	F1	I0	Return to inactive
10	F3	PH-AR		F4	I1	Initiate activation & T3
11	F3	Rx INFO 0	4	F3	I0	No action
12	F3	Rx INFO 2		F6	I3	Synchronised state
13	F3	Rx INFO 4		F7	I3	Activated
14	F3	Rx any signal	3	F3	I0	No action
15	F3	T3 expires	2	F3	I0	No action
16	F4	Loss of Power	9	F1	I0	Return to inactive state
17	F4	Rx INFO 0	4	F4	I1	No action
18	F4	Rx INFO 2	7	F6	I3	Synchronised
19	F4	Rx INFO 4	7	F7	I3	Active
20	F4	Rx any signal	3	F5	I0	Detection of signal
21	F4	T3 Expires	2	F3	I0	Deactivated
22	F5	Loss of Power	9	F1	I0	Return to inactive
23	F5	Rx INFO 0	4	F5	I0	No action
24	F5	Rx INFO 2		F6	I3	Synchronised
25	F5	Rx INFO 4		F7	I3	Activated
26	F5	Rx any signal	3	F5	I0	No action
27	F5	T3 Expires	2	F3	I0	Deactivated
28	F6	Loss of Power	8	F1	I0	Return to inactive
29	F6	Lost Framing		F8	I0	Loss of framing signals
30	F6	PH-AR		F6	I3	No action

(continued)

Table to subclause D.3.2.1 (concluded)

STATE NO	CURRENT STATE	STIMULUS	NOTE	NEXT STATE	INFO SENT	COMMENT
31	F6	Rx INFO 0	4	F3	I0	Deactivated
32	F6	Rx INFO 2		F6	I3	No action
33	F6	Rx INFO 4		F7	I3	Activated
34	F6	T3 Expires	2	F6	I3	Synchronised
35	F7	Loss of Power	8	F1	I0	Return to inactive
36	F7	Lost Framing		F8	I0	Loss of framing
37	F7	Rx INFO 0	4/5	F3	I0	Deactivated
38	F7	Rx INFO 2		F6	I3	Synchronised
39	F7	Rx INFO 4		F7	I3	No action
40	F8	Loss of Power	9	F1	I0	Return to inactive
41	F8	PH-AR		F8	I0	No action
42	F8	Rx INFO 0	4/5	F3	I0	Deactivation
43	F8	Rx INFO 2		F6	I3	Synchronised
44	F8	Rx INFO 4		F7	I3	Activated
45	F8	Rx any signal	3	F8	I0	No action
46	F8	T3 expires	2	F3	I0	Assume deactivated state
<p>NOTE 1: Because the IUT can be powered in different ways, it is useful to test this IUT with the possible power it is able to detect (PS1, PS2, local power).</p> <p>NOTE 2: T3 = Implementation dependent, not to exceed 30 sec.</p> <p>NOTE 3: "Any signal" is simulated by any bit pattern on which the IUT conforming to subclause A.6.3.1.2, ETS 300 012 is not able to synchronise.</p> <p>NOTE 4: For testing purposes INFO 0 is simulated by a sinusoidal signal having a voltage of 100 mV peak to peak (with a frequency in the range of 2 kHz to 1000 kHz). The TE shall react by transmitting INFO 0 within a period time 250 µs to 25 ms.</p> <p>NOTE 5: The PH-DI corresponding to the reception of INFO 0 shall be delivered to Layer 2 only if Layer 1 does not re-enter an active state before the expiration of a timer of which the value is in the range of 500 ms to 1 s.</p> <p>NOTE 6: Applicable only for TEs which are locally powered and able to detect PS1 or PS2.</p> <p>NOTE 7: If INFO 2 or INFO 4 is not recognised within 5 ms after the appearance of a signal, TE shall go to F5. The result is to be tested 5 ms after generation of the stimulus.</p> <p>NOTE 8: For TEs which are locally powered and able to detect PS1 or PS2, at the event "disappearance of power" in states F6 or F7, no state change shall be observed.</p> <p>NOTE 9: Locally powered TEs with disconnected detector shall not assume disconnection and shall not take any action until the voltage of the interface has remained below 24 V for at least 500 ms (refer to subclause 7.1.1).</p>						

Page 58, subclause D.3.2.2.1.1

Replace the title of subclause D.3.2.2.1.1 with the following title:

D.3.2.2.1.1 Test A, in state F3 (subclauses A.4.3 and A.6.2.6.1, ETS 300 012)**Page 58, subclause D.3.2.2.1.1**

Replace the paragraph "Stimulus:" with the following text:

Stimulus: INFO 2 type frames from the network. This test shall be performed with both normal and reversed polarity of the interchange circuit (NT to TE direction).

Page 68, subclause D.3.3

Replace the results and notes 3 and 4 with the following:

Results:

	STIMULUS	RESULTS	COMMENTS
a)	1 bad frame	INFO 3	No loss of framing
b)	5 bad frames	INFO 0	Framing lost
c)	2 good frames	INFO 0	Framing not regained
d)	6 good frames (note 3)	INFO 3	Framing regained within 5 frames

NOTE 3: Before the test, the TE shall be in state F8. The input shall be applied with "Any signal". Multiframing is not covered by this test.

Page 73, subclause D.4.2

Replace the first paragraph of subclause D.4.2, with a subclause heading as follows:

D.4.2.1 TE jitter measurement characteristics (test A) (subclause A.8.2.2, ETS 300 012)

Page 84, subclause D.4.5.2, "System state:"

Replace the "System state:" text with the following:

System state: a) Deactivated (*state F3*), then

 b) Synchronised (*state F6*).

IUT transmitting INFO 3 containing all binary ONEs in both B-channels (idle channel code)

Page 95, subclause D.5.1.1

Replace the title of subclause D.5.1.1 with the following title:

D.5.1.1 Normal power conditions (subclauses A.9.3.1.1 and A.9.5.1, ETS 300 012)

Page 100, subclause D.5.1.2

Replace the title of subclause D.5.1.2 with the following title:

D.5.1.2 Restricted power conditions (subclauses A.9.3.1.2 and A.9.5.2, ETS 300 012)

Page 109, subclause D.5.1.4.2

Replace the title of subclause D.5.1.4.2 with the following title:

D.5.1.4.2 Current/time limitation for TE when connecting (subclause 7.1.1, Clause B.6, ETS 300 012)

Page 109, subclause D.5.1.4.2, "Stimulus:"

Replace the "Stimulus:" paragraph with the following:

Stimulus: Phantom supply voltage. Restricted mode

U = - 40 V R = 15 Ω

The test setup shall be capable of providing a connection to ground. The measurement shall be done in both wires connecting the power supply to the IUT.

Page 124, subclause E.1.4.4

Replace the fourth instance of "N/R" with "E.3.3.2.1", producing a table as follows:

Modes	Clause/ subclause	Test defined in Clause/subclause
Types of wiring configuration	A.4	N/R
Point-to-point configuration	A.4.1	N/R
Point-to-multipoint configuration	A.4.2	N/R
Polarity Integrity (figure 2/I.430 [2])	A.4.3	<u>E.3.3.2.1</u>
Interface Ib	A.4.4	N/R
NT associated wiring	A.4.5	N/R

Page 137, subclause E.3.3.2.1, Test B

Replace the test name "• **Test B**" with the following:

- **Test B (subclause A.4.3)**

Page 137, subclause E.3.3.2.1, Test B, "Stimulus:"

Replace the "Stimulus:" paragraph with the following:

Stimulus: INFO 3 from the TE simulator.

This test shall be performed with both normal and reversed polarity of the interchange circuit (TE to NT direction).

Page 140, subclause E.3.4, "Results:"

Replace the results and remainder of page 140 (bullet points 1 to 5) with the following:

Results:

	STIMULUS	RESULTS	COMMENTS
a)	1 bad frame (see NOTE 3)	INFO 4	No loss of framing
b)	5 bad frames (see NOTE 3)	INFO 2	Framing lost
c)	2 good frames (see NOTE 4)	INFO 2	Framing not regained
d)	6 good frames (see NOTES 4 and 5)	INFO 4	Framing regained within 5 frames

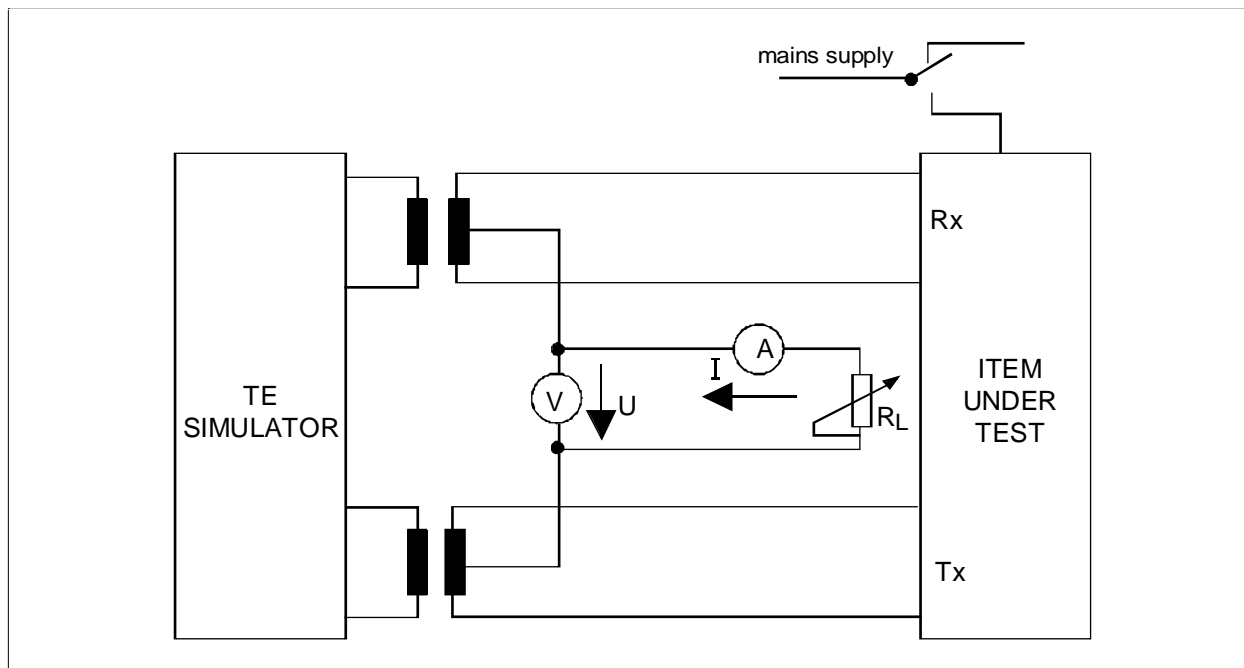
NOTE 3: Before the commencement of the test, the NT shall be in system state G3.

NOTE 4: Before the test, the NT **shall not** be in system state G3.

NOTE 5: Multiframing procedure is not covered by this test.

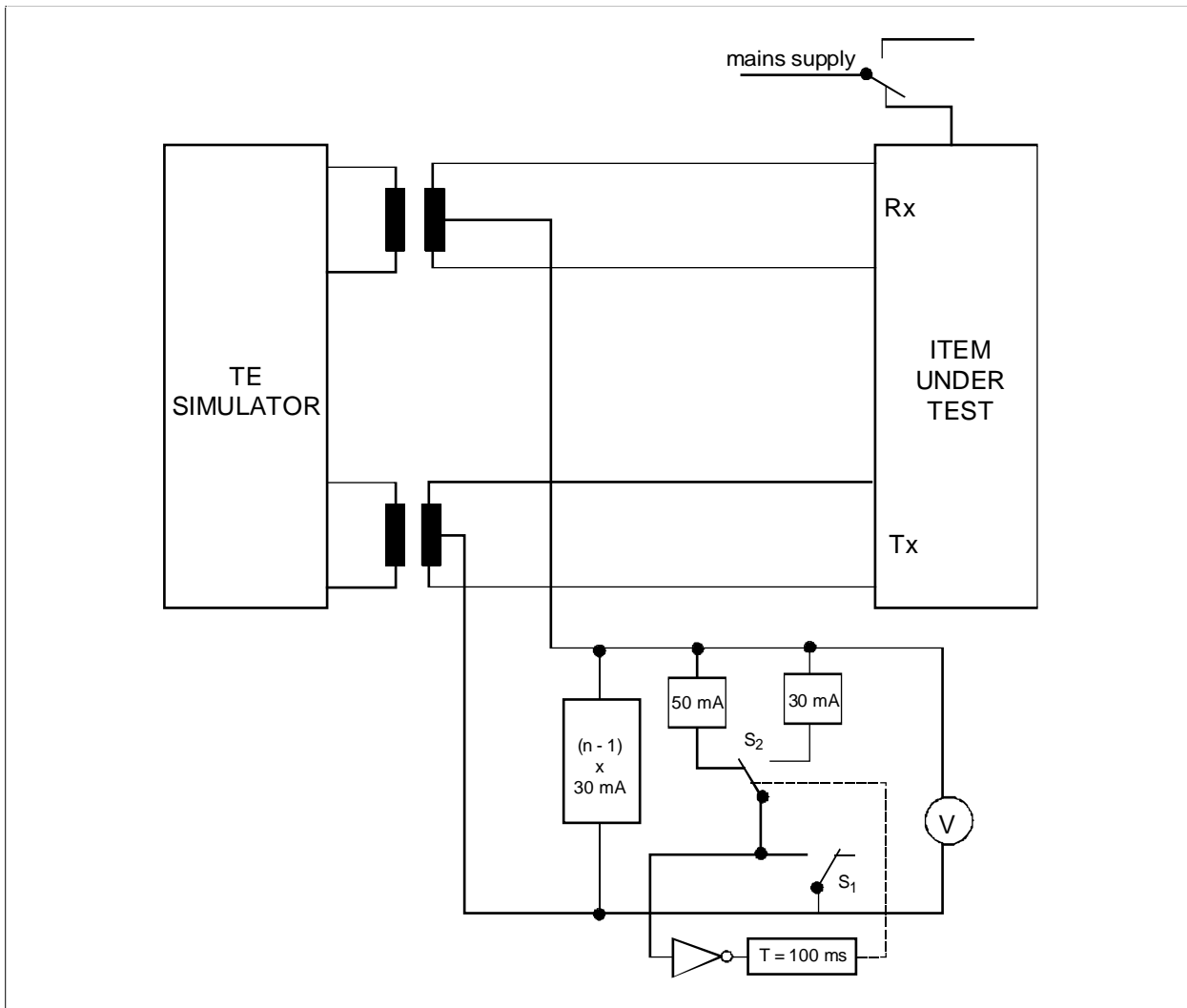
Page 160, subclause E.5.1.4.3

Replace the figure for the test configuration with the following figure:



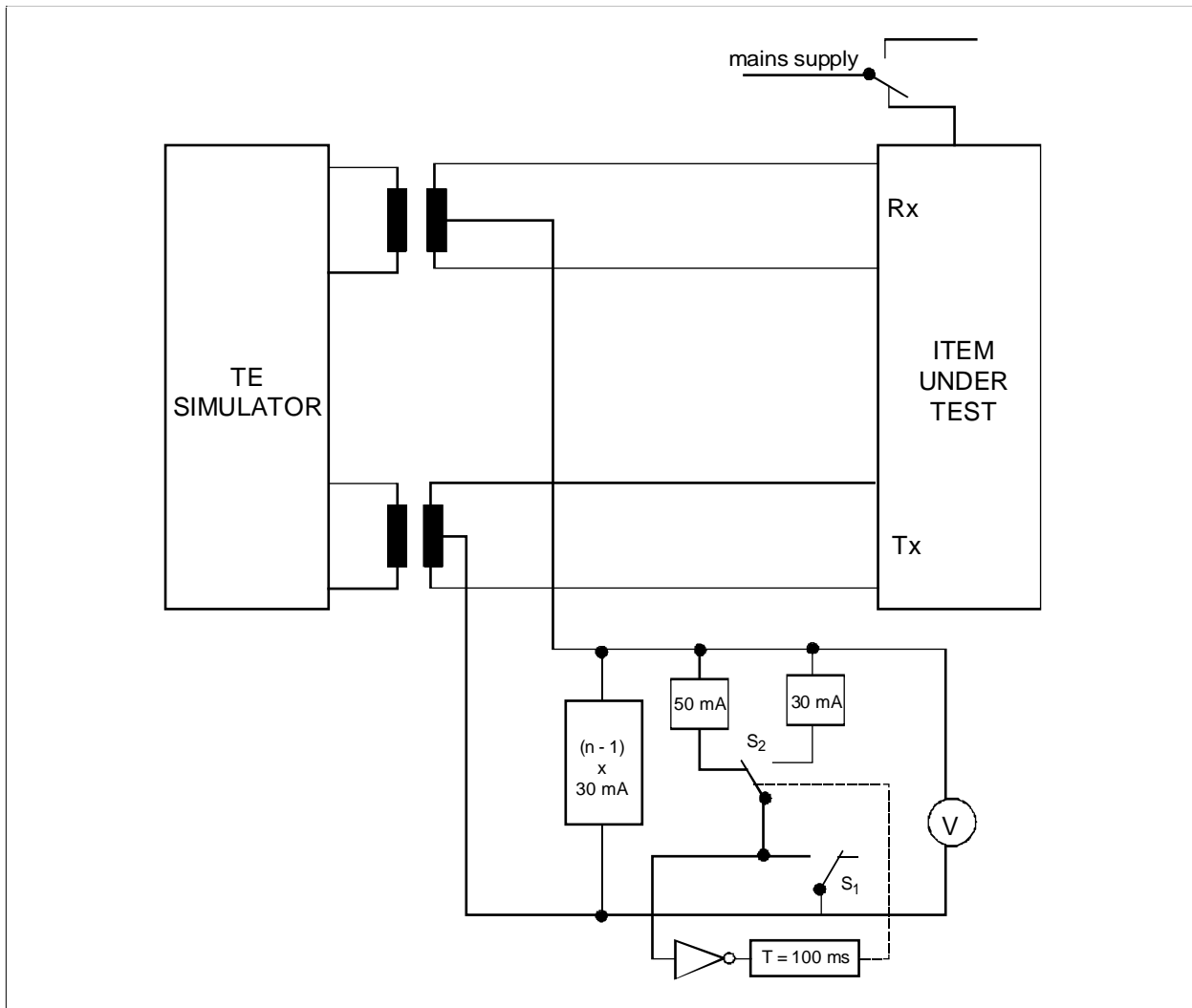
Page 164, subclause E.5.1.7

Replace the figure for the test configuration with the following figure (modifying the value of the initial load):



Page 173, subclause E.6.1.5

Replace the figure for the test configuration with the following figure (modifying the value of the initial load):



History

Document history	
April 1992	First Edition of ETS 300 012
December 1994	Amendment 1 to First Edition of ETS 300 012
December 1995	Converted into Adobe Acrobat Portable Document Format (PDF)
Note:	<p>The references to the changed pages in the standard refer to an old presentation. See history box at the end of the standard itself.</p> <p>The new presentation format, applied from 1 December 1995, might have different page numbering. The clause numbering has not changed.</p>