то:	T10 Membership
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SUBJECT:	T10/03-367r2, ADT Annex: Error detection and recovery action examples

Revision 1:

- Changes to clarify transmission of multiple IUs without receiving Acknowledgement IUs
- Fixed incorrect labels
- Added P4:Initiating Recovery state and added labels for sender actions.
- This is not entirely consistent with 03-355r2, which does not yet show a P3:P2 transition upon receipt of an Initiate Recovery IU.

Revision 0:

• Initial version

Background

In the process of preparing proposals for error detection and recovery, we found that drawings made comprehension easier. This document offers some such as an informative annex for ADT.

Changes

Add the following as an Annex.

Annex A

(Informative)

Error detection and recovery action examples

A.1 Introduction

This informative annex diagrams various error detection and recovery procedures for ADT devices conforming to this standard. The conventions for the diagrams are shown in table A.1.

Drawing Convention	Meaning
	Acknowledged or Unacknowledged IU
	Acknowledgement IU
	Time-out value exceeded
	IU received is processed to transmit IU
X	IU lost or dropped
RE	Value of the recovery expected (RECEXP) bit in the NAK IU.
EFN	Value of the port's Expected Frame Number counter
RecoveryFN	Value of the FRAME NUMBER field in the last received Initiate Recovery IU.
a = b	Counter a is set to the value of expression b
(a == b)	Expression a equals expression b
(a != b)	Expression a does not equal expression b
(condition)	Because the condition is true, the action is
=> action	performed

Table A.1 – Diagram Drawing Conventions

Figure A.1 – Receiver-Detected Error



Note: ACK Offset > 1 allows IU B to be sent immediately after IU A and IU C after IU B.

Figure A.2 – Lost ACK IU



Note: ACK Offset > 1 allows IU B to be sent immediately after IU A.

Figure A.3 – Lost IU with No Further Traffic





Figure A.4 – Lost IU with Further Traffic



Note: After transmission of IU A, ACK Offset > 1 allows IU B to be sent immediately.

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Figure A.5 – Non-Retryable Error



Note: ACK Offset > 1 allows IU B to be sent immediately after IU A.