

To: T10 Technical Committee  
From: Wayne Bellamy (wayne.bellamy@HP.com), Hewlett-Packard  
Date: July 15, 2005  
Subject: T10/05-241r2 SAT- Read-Write Error Recovery mode page

### **Revision History**

Revision 0 (June 14, 2005) first revision

Revision 1 (July 01, 2005) second revision

Changes as follows: (per June 20, 2005 SAT W.G. – Please note that a time restraint limited the review process. As such, this is a limited edit of the proposal based on the review.)

- 1) Add a “Changeable” column to the table.
- 2) Change “PS” bit to “U” and remove descriptive text.
- 3) Remove all strikeouts per W.G. member.
- 4) PAGE LENGTH field to “(See SBC-2)”
- 5) AWRE – Change to “(See SBC-2)” and not changeable.
- 6) ARRE – Change to “0b” and not changeable.
- 7) TB – Change to “U” and remove descriptive text.
- 8) RC – Change to “0b” and “(See SBC-2)” and not changeable.
- 9) From EER up to READ RETRY COUNT – Change to “0b” or “0h” and not changeable.
- 10) WRITE RETRY COUNT – Change to “U” and delete descriptive text.
- 11) RECOVERY TIME LIMIT – Change to “This field is ignored and set to 00h”.

Revision 2 (July 15, 2005) third revision - **approved “as revised” for SAT inclusion**

Changes as follows: (per July 12, 2005 SAT W.G.)

- 1) Use the table with the “Changeable” column and remove the others.
- 2) Remove editors notes and W.G. notes (in blue).
- 3) Change all “NO” to “N/A” in Changeable column if SATTYPE is “U”.
- 4) Change PAGE CODE and PAGE LENGTH field SATTYPE “I” to “E”.
- 5) Change all references “(See SBC-2)” to “(see SBC-2).”
- 6) AWRE – change “U” to “E” and “Shall be set to a value of 1b.” in description.
- 7) READ RETRY COUNT field – change SATTYPE to “U”.
- 8) RECOVERY TIME LIMIT – change description field to “Shall be set to a value of 00h (see SBC-2).”
- 9) Change the beginning of the note below table to “Bits or fields that are set to values other than those required by the table shall cause the SATL to...”(rest is the same).

### **Related Documents**

(T10) sat-r04 – SCSI to ATA Translation (SAT), Revision 4

(T10) sbc-2r16 – SCSI Block Commands - 2, Revision 16

(T13) ata7v1r4b – AT Attachment with Packet Interface -7 Volume1, Revision 4b

**Overview**

1. The Read-Write Error Recovery mode page is useful for providing notice to the SCSI application client that not much can be done to control error recovery with ATA end devices.
2. Complexity of the emulation is estimated to be “minimal”.

**Suggested Changes**

**10.1.4 Read-Write Error Recovery mode page**

The Read-Write Error Recovery mode page specifies the error recovery parameters the device server shall use during any command that performs a read or write operation to the medium. (See SBC-2.)

**Table 2 — Read-Write Error Recovery mode page fields**

Field	Changeable	SATType	Description or reference
PS	N/A	U	
PAGE CODE	NO	E	Set to a value of 01h. This field value is specific to the Read-Write Error Recovery mode page.
PAGE LENGTH	NO	E	(see SBC-2).
AWRE	NO	E	Shall be set to a value of 1b (see SBC-2).
ARRE	NO	E	Shall be set to a value of 0b (see SBC-2).
TB	N/A	U	
RC	NO	E	Shall be set to a value of 0b (see SBC-2).
EER	NO	E	Shall be set to a value of 0b (see SBC-2).
PER	NO	E	Shall be set to a value of 0b (see SBC-2).
DTE	NO	E	Shall be set to a value of 0b (see SBC-2).
DCR	NO	E	Shall be set to a value of 0b (see SBC-2).
READ RETRY COUNT	N/A	U	
WRITE RETRY COUNT	N/A	U	
RECOVERY TIME LIMIT	NO	E	Shall be set to a value of 00h (see SBC-2).

Bits or fields that are set to values other than those required by the table shall cause the SATL to return a CHECK CONDITION status with SENSE KEY set to ILLEGAL REQUEST and ADDITIONAL SENSE CODE set to INVALID FIELD IN PARAMETER LIST.