

## Exhibit B

### ROBUSTNESS RULES

#### 1. Construction

DVD+RW/+R Recorders as shipped shall conform to the DVD+RW/+R Format Specifications and the DVD+RW Compliance Rules as specified in Exhibit A to the DVD+RW Recorder Content Protection Agreement. Further, DVD+RW/+R Recorders shall be designed and manufactured to effectively resist attempts to modify such DVD+RW/+R Recorders to defeat the Content Protection Requirements as specified by the DVD+RW/+R Format Specifications and DVD+RW Compliance Rules.

#### 1.1 No Defeating Functions

DVD+RW/+R Recorders shall not include:

- (a) switches, buttons, jumpers, or software equivalents thereof, or
- (b) traces that may be cut, or
- (c) control function means (such as, but not limited to, service menus and remote-control functions),

in each case by which the mandatory provisions of the DVD+RW/+R Format Specifications or the DVD+RW Compliance Rules can be defeated.

#### 1.2 Robustness Methods

DVD+RW/+R Recorders shall be designed and manufactured using at least the following techniques or methods to effectively frustrate efforts to circumvent the Content Protection Requirements.

#### 1.2.1 Software Implementation

Any portion of DVD+RW Recorders which implement a part of the Content Protection Requirements by means of implementation or use thereof in Software shall include all of the characteristics set forth in these Robustness Rules. For the purposes of these Robustness Rules, "Software" shall mean the implementation of the Content Protection Requirements through any computer program code consisting of instructions or data (other than instructions or data that are included in Hardware). Such implementations shall:

- (a) use reasonable methods, including but not limited to, encryption, execution of a portion of the implementation in ring zero, or supervisor mode, and/or embodiment in a secure physical implementation; and in any case of implementation of the content protection technology in software, using techniques of obfuscation, clearly designed to effectively disguise and hamper attempts to discover the approaches used; and
- (b) be designed so as to perform self-checking of the integrity of its component parts in such a way that unauthorised modifications will disable the playback or recording function of DVD+RW/+R Recorders. For the purpose of this provision, a “modification” includes any change in, or disturbance or invasion of features or characteristics, or interruption of processing methods, referred to in Section 1.1 above. This may require at a minimum the use of “signed code” or other, equally or more robust means of tagging operations throughout the code.

### 1.2.2 Hardware Implementation

Any portion of the DVD+RW/+R Recorder which implements a part of the Content Protection Requirements specified in the DVD+RW/+R Format Specifications and DVD+RW Compliance Rules, by means of incorporation in Hardware shall include all of the characteristics set forth in these Robustness Rules. For the purposes of these Robustness Rules, “Hardware” shall mean a physical device, including a component, that implements any of the Content Protection Requirements and that (i) does not include instructions or data other than such instructions or data that are permanently embedded in such device or component; or (ii) includes instructions or data that are not permanently embedded in such device or component where such instructions or data have been customized for such DVD+RW/+R Recorder and such instructions or data are not accessible to the end user through the DVD+RW/+R Recorder. Such implementations shall:

- (a) comply with these Robustness Rules by any reasonable method including but not limited to embedding content protection algorithms and control functions in silicon circuitry or firmware which cannot reasonably be read, or by employing the techniques regarding Software implementation referred to in Section 1.2.1 above; and
- (b) be designed in such a way that attempts to remove, insert, reprogram or replace Hardware elements in a way that would compromise the

algorithms and control functions which implement the Content Protection Requirements would pose a serious risk of damaging the playback or recording functionality of DVD+RW/+R Recorders. By means of example, a component which is soldered rather than socketed may be appropriate for this purpose.

### 1.2.3 Hybrid Implementation

The interfaces between Hardware and Software portions of a DVD+RW/+R Recorder shall be designed in such a way that they provide the level of protection equivalent to the level offered when incorporating the Content Protection Requirements either, in case of Hardware, by means of a totally Hardware implementation or, in case of Software, by means of a totally Software implementation.

## 1.3 Required Level of Robustness

The implementation of the DVD+RW/+R Format Specifications and the DVD+RW Compliance Rules in DVD+RW/+R Recorders shall be implemented in a way such that it is sufficiently certain that it:

- (a) cannot be defeated or circumvented merely by using general purpose tools or equipment that are widely available at reasonable prices, such as screwdrivers, jumpers, clips and soldering irons (“Widely Available Tools”), or using specialised electronic tools that are widely available at reasonable prices, such as EEPROM readers and writers, debuggers, decompilers, or similar software development products (“Specialised Tools”), other than devices or technologies whether Software or Hardware that are designed and made available for the specific purpose of bypassing or circumventing the protection technologies required by the DVD+RW/+R Format Specifications and the DVD+RW Compliance Rules (such devices hereinafter referred to as “Circumvention Devices”); and
- (b) can only with difficulty be defeated or circumvented using professional tools or equipment, such as logic analyzers, chip disassembly systems, or in-circuit emulators (“Professional Tools”), save that the foregoing shall not apply to Circumvention Devices, nor to professional tools or equipment that are made available on the basis of a non-disclosure

agreement.

#### 1.4 New Circumstances

Although an implementation of a DVD+RW/+R Recorder when designed and shipped may meet the above standards, the subsequent wide availability at reasonable consumer prices of products which were formerly Professional Tools may lead to such implementation becoming non-compliant through no act of the Adopter.

Therefore, if: (a) one or more Professional Tools become generally available to average users at a reasonable price, or new Professional Tools become available to professionals, and (b) if such tools had been so available at the time of design of a particular DVD+RW/+R Recorder, such availability would have caused such products to fail to comply with these Robustness Rules, and (c) such availability, based on facts made known to Adopter, is likely to pose a substantial and imminent harm to other Adopters or Eligible Content Participants, then within 18 months after learning of a, b, and c, above, Adopter shall cease distribution of such DVD+RW/+R Recorders and shall only distribute DVD+RW/+R Recorders which are compliant with these Robustness Rules in view of the then current circumstances.

Reference Copy

Filename: ExhibitB-DVD+RWRobustnessRules-09-2002  
Directory: L:\licensing\IP&S WEBSITE LICENSE  
DOCUMENTS\DVD+RW+R recorder (joint)\Current Versions  
Template: C:\Documents and Settings\nlv10480\Application  
Data\Microsoft\Templates\normal.dot  
Title: Exhibit B  
Subject:  
Author: Elles de Wit  
Keywords:  
Comments:  
Creation Date: 24-09-2002 18:37:00  
Change Number: 3  
Last Saved On: 25-09-2002 11:35:00  
Last Saved By: Elles de Wit  
Total Editing Time: 17 Minutes  
Last Printed On: 17-11-2006 12:26:00  
As of Last Complete Printing  
Number of Pages: 4  
Number of Words: 1,077 (approx.)  
Number of Characters: 6,144 (approx.)

Reference copy