

# SOLUTIONS



**RICOH®  
DATAOVERWRITESECURITY  
SYSTEM (DOSS)**

**Hard Disk  
Data Overwrite  
Security Solution**



**RICOH®**



## RICOH DATAOVERWRITESECURITY SYSTEM (DOSS)

### The Hard Disk Image Overwrite Solution... A Simple, Reliable, Low-cost Option to Protect Confidential Information

Digital office technology, specifically multifunctional products (MFPs), has revolutionized the way business is conducted. Reports that took hours to print, copy and distribute now take minutes. Digital technology—the conversion of scanned images and text into compressed data—has ushered in a new era of rapid, economical electronic communication. New challenges have arrived as well—challenges related to safeguarding valuable information that is communicated digitally, both internally and externally. Unlike their analog predecessors, digital MFPs—those that copy, print, fax and scan—pose an “information security” dilemma. Why? Because each page that is scanned by a MFP results in a latent image on the system’s internal hard disk drive.



Ricoh’s DataOverwriteSecurity System (DOSS) option, designed for the newest generation of mid-volume RICOH® MFPs, overwrites data that is temporarily stored on the hard drive by writing over the latent image with random sequences of 1’s and 0’s, making any effort to access and reconstruct residual image data virtually impossible. Ricoh’s DOSS option reduces the risk of information theft by performing a three-pass overwrite process as follows:

**1st Pass:** Overwrite with random data, 1’s and 0’s

1 0 0 1 0 0 0 1 0 0 1 0 1 0 0 0 0 1 0 0 1 0 1 0 1 0 0 0

**2nd Pass:** Overwrite again with random data, 1’s and 0’s

1 0 0 1 0 1 0 1 0 0 0 1 0 1 0 1 0 1 1 1 1 0 0 1 0 1 1 0

**3rd Pass:** Overwrite with null data, all 0’s

0 0

### Unique Implementation and Greater Security

A single DIMM Chip or SD Card is installed within the device (internally), by an authorized Ricoh service technician<sup>1</sup>. This automatically enables, turns *On*, the overwrite function, indicated by a display icon. The only way to turn the

function *Off* is to physically remove the firmware. In contrast, software-based overwrite technologies often allow for control panel programming (*On*, *Off*, etc.), which can pose a security risk. In addition, Ricoh’s DOSS option provides the following advantages:

- ▶ National Information Assurance Partnership (NIAP) ISO 15408 Common Criteria Certified<sup>1</sup> (EAL 3) and conforms to National Security Agency (NSA) recommended methods of managing classified information.
- ▶ Has the ability to operate in conjunction with Ricoh’s Removable Hard Drive Security Systems, providing a multi-layered approach to securing sensitive documents.

### Ordering

- ▶ Type A DIMM Chip<sup>2</sup>  
Ricoh Aficio 2022, 2027, 2035e, 2045e
- ▶ Type B SD Card  
Ricoh Aficio 2232C and 2238C

Note: The Ricoh Aficio 2022/2027 must be equipped with an optional hard drive. The Ricoh Aficio 2035/2045 must be an “e” version.

### Kit Contents

- ▶ DIMM Chip (Type A) or SD Card (Type B), Operating Instructions (on CD-ROM), Document Server and Scanning Feature key covers (to prevent usage when the system is enabled with the DOSS option).

### Certification/Compliance

- ▶ ISO 15408 Common Criteria Certification (EAL 3). This certification is a recognized worldwide standard that defines security requirements and establishes procedures for evaluating security of IT systems and software.
- ▶ Assists in compliance with Health Insurance Portability and Accountability Act (HIPAA), Gramm-Leach-Bliley Act (GLBA) for financial privacy, and Family Education Rights Privacy Act (FERPA) for student privacy.

**Note:** No post-sale upgrades are available for the DOSS option because Ricoh cannot guarantee the security of the data that is present on the hard drive prior to the installation of the firmware. For that reason, the DOSS option must be installed at the same time as the mainframe.

<sup>1</sup> To comply with ISO 15408 Common Criteria guidelines an authorized Ricoh service technician must install the DOSS option.

<sup>2</sup> The optional PostScript 3 module cannot be installed together with the DIMM Chip (Type A) since it is inserted in the PS3 slot.

Specifications are subject to change without notice.



Printed in U.S.A. on recycled paper because Ricoh cares.

Ricoh is a registered trademark of Ricoh Company, Ltd.  
All other trademarks are the property of their respective owners. © Ricoh Corporation

**RICOH**®  
Image Communication

Ricoh Corporation • Five Dedrick Place, West Caldwell, NJ 07006  
Phone: (973) 882-2000 • Website: <http://www.ricoh-usa.com>