

— It Only Takes One
VCR To Make



Illegal Copies

Now Imagine Over 400 Million VCRs.

"Any consumer can make a commercial-quality VHS recording from an unprotected DVD. This can displace both DVD and videocassette revenue opportunities. We urge suppliers to copy protect all their product so that overall consumer demand can be maximized."

*-Matt Brown
Executive Vice
President
West Coast
Entertainment*

Content owners lose every time illegal copies are made. Because without copy protection, any consumer can make near-perfect videotape copies of DVDs with the press of a button on their VCR. Copies that, when passed onto friends, neighbors, and co-workers, can displace multiple videocassette and DVD sales.

This issue might be manageable if there were relatively few VCRs in the market. But there are now over 400 million VCRs in consumer homes worldwide—over one third of these in the U.S. and Canada alone. This means there are potentially hundreds of millions of devices capable of making commercial-quality copies of DVDs. This means there could be hundreds of millions of opportunities to make illegal copies.

Fortunately, there is a solution. Macrovision copy protection prevents consumers from successfully copying DVD programs to VCRs, without impacting the quality of the original program. Used on most movies released on DVD, the technology allows content owners to maximize sales, and control the distribution of their programs. The result is the Macrovision Process has become the worldwide de facto standard for analog copy protection.

Macrovision DVD Copy Protection:

How It Works.

Macrovision copy protection, the only tool available in the DVD format to prevent copying to VCRs, is activated during DVD authoring. An authoring facility activates the technology by setting certain copy protection control bits to "on." When a disc with these bits set is played back in a consumer's home, the digital-to-analog converter chip within the player applies Macrovision copy protection to the outgoing analog video signal destined for the TV. The technology is transparent on original viewing, but causes copies made on approximately 95% of the VCRs in the market to be substantially distorted.

The actual copy protection signal applied to DVD programming is comprised of two elements: Automatic Gain Control and Colorstripe™. The Automatic Gain Control Process, which has been used to protect prerecorded videocassettes since 1985, consists of pulses placed in the vertical interval that TVs cannot detect. When a copy is attempted, the pulses confuse a VCR's record circuitry, causing copies to exhibit characteristics such as dim and/or noisy pictures, loss of color, loss of video, picture tearing, etc. The Colorstripe Process consists of changes to colorburst information that are transparent on original program viewing, but that produce annoying lines across the picture on illegal copy playback. Used together, these technologies provide the world's most effective defense against unauthorized copying.



DVD Copy Protection. How to get it.

The procedures for using copy protection are simple. Content owners complete an agreement with Macrovision allowing for use of the technology at Macrovision-authorized replicators and authoring facilities. The authoring facility is instructed by the content owner to set the copy protection bits to "on." Macrovision then bills the content owner directly on a per disc basis based on replicator volume reports.

The choice of the industry.

Macrovision's copy protection technologies have become the de facto standard for protecting against copying of both analog and digital content to VCRs. The Macrovision videocassette copy protection technology has been encoded onto over 1.8 billion videocassettes. These cassettes have been viewed an estimated 10 billion times. In fact, the videocassette version of Macrovision's technology is used by every major Hollywood studio, and by over 1500 special interest, educational, and corporate rights owners as well.

Not surprisingly demand for a version of this technology that prevents DVD copying has been extremely strong. Macrovision DVD copy protection has been approved by Hollywood studios, consumer electronics manufacturers, and the DVD Consortium for inclusion in all DVD players. Virtually every major DVD movie

released in the U.S., Europe, and Japan has been copy protected. And usage rates are high both among major movies companies as well as from special interest content owners now entering the DVD market. To protect content from copying to VCRs, there is only one choice: Macrovision copy protection.

Reap the benefits.

Copy protection benefits content owners in several ways. The technology allows companies to maximize sales by minimizing the proliferation of unauthorized copies. This boosts current sales of videocassettes and DVDs, it opens up improved opportunities for re-release, and increases the licensing value of a property. Copy protection strengthens content owners' copyright by demonstrating a company is taking reasonable steps to protect its programming. And it allows content owners to support their retailer customers, who prefer carrying copy protected titles vs. non-protected ones.

Simply put, copy protection represents the only way to prevent widespread copying to VCRs today. And to ensure maximum sales well into the future.

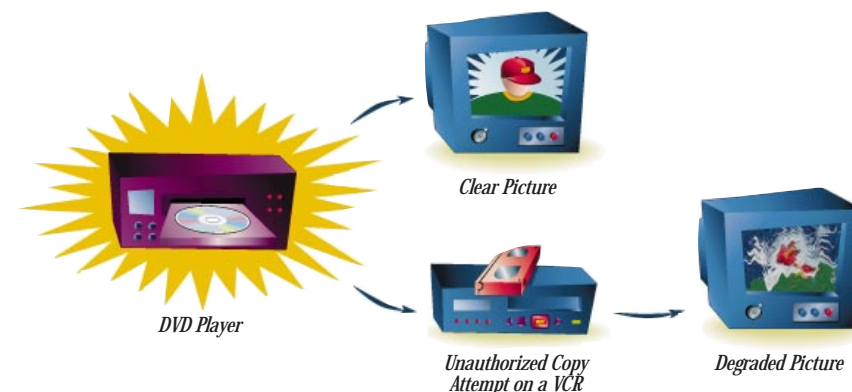
For a list of Macrovision-authorized Replicators and Authoring Facilities, please call 1-800-622-7686, or visit Macrovision's web site at www.macrovision.com.

"We support the use of copy protection on the videocassettes and DVDs we carry. The better we protect our product, the better we protect our profits."

*-Peter Busch
Vice President
Video Merchandising
Musicland Group*



Over 80 million U.S. households have the capability to make VHS copies of DVD programs, and these households need only one VCR to copy. There are currently 400 million VHS VCRs in the market worldwide.



The Macrovision DVD copy protection technology is transparent during original program viewing, but causes copies made on VCRs to be substantially degraded.



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