CBS ELECTRONIC VIDEO RECORDING

A system for storing
audiovisual programs
for display through
standard television receivers

Electronic Video Recording— The Next Step In Television

In the same way that a long-playing record stores sound conveniently, inexpensively and with high fidelity on a record for selective play on standard phonographs, the EVR System stores pictures with sound for playback of consistently high resolution through standard television receivers. Original material on either motion picture film or videotape can be converted to the EVR format.

The EVR Cassette

Only seven inches in diameter and ⅔ of an inch thick, the fully loaded cassette weighs about a pound and contains 750 feet of film. Each of the two channels of this film contains 90,000 picture frames, equivalent to 25 minutes of programming per channel.

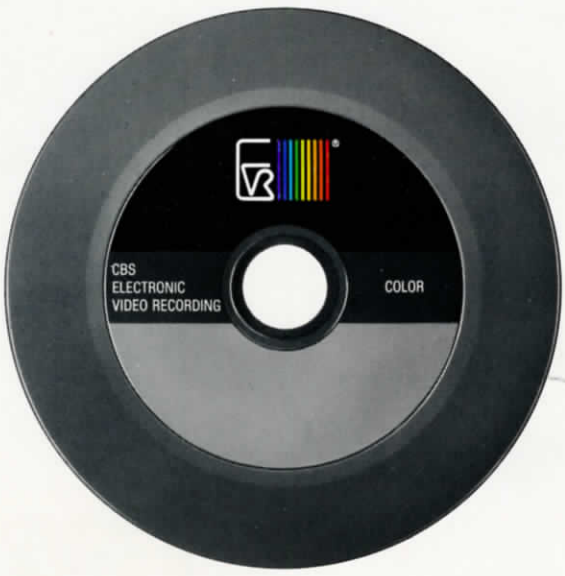
The monochrome format uses both channels so that a maximum of 50 minutes of program time is available. The color format provides a maximum of 25 minutes of program time.

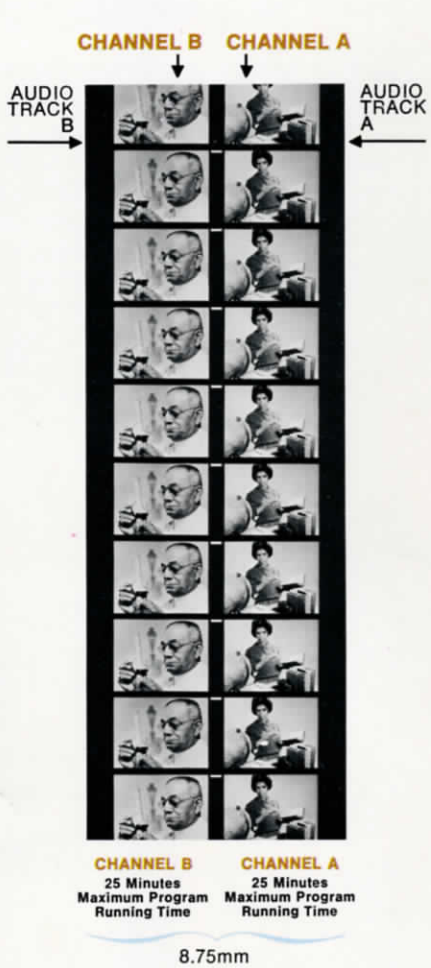
The cassette is sealed against dust, dirt and fingerprints on the film, and opens only when locked in the player. Scanning is done without any physical contact with the film itself. And a cushion of air separates the layers of film when it is wound in the cassette.

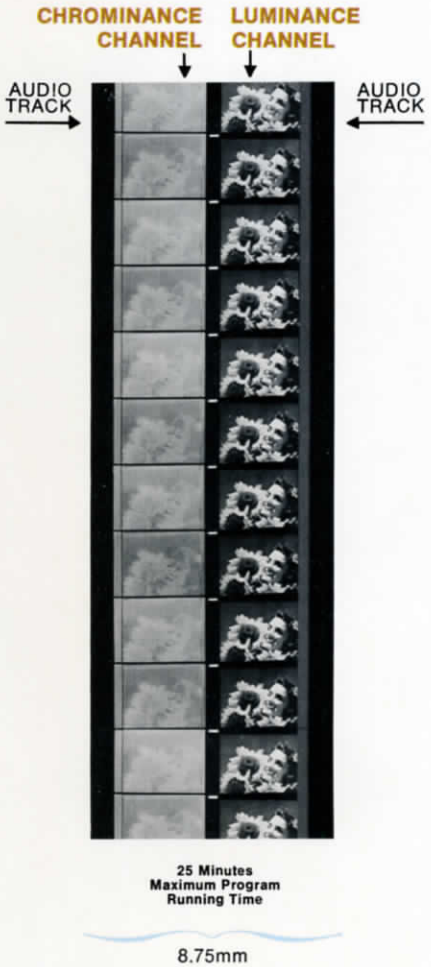
The EVR Film

The thin EVR Film is under ⅜ of an inch wide, and is divided into two parallel channels, each with its own magnetic sound track. The monochrome version utilizes these two channels for separate programs. The color format uses one channel for luminance (image information) and the other for chrominance (color information). The film itself is the same for both color and monochrome.

There are no sprocket holes in the film; synchronization is accomplished through tiny optical marks on the film itself.







The EVR Player

The player is compact, portable and simple to operate. A single lead connects it to the external antenna leads of any standard black-and-white or color television receiver, or to a master or community antenna television system. When a cassette is placed on the player, and the Play button is depressed, the film automatically threads itself past an electronic sensor that converts the film image to electrical impulses. These impulses, along with the sound, are transmitted to the television receiver.

The player may be stopped at any time and the picture retained on the television screen without flickering, dimming, blurring or damaging the film. While in this Still mode, a "scroll" control may be used to move the film forward or backward frame by frame, while viewing the material on the television screen. A unit counter is incorporated to help find any sequence or frame on the film.

When playing monochrome cassettes, with their two channels, the operator may switch from one channel to the other, either in Play or in Still mode. Other controls include Forward, Rewind, Play, Stop, Still and a selector switch for Color, Monochrome Channel A, Monochrome Channel B and Off.

The EVR Player is completely silent in operation, with no projector noise to distract the viewer or interfere with concentration or supplementary instruction. The EVR System is viewed in normal room light, permitting viewers to take notes or refer to texts. And, since transmission to the television receiver is direct and there are no buildings or other interference to contend with, there is no ghost image or other picture or sound distortion.

The EVR System in Education

Electronic Video Recording will give new scope to television's immense potential in education. As the Carnegie Commission for Educational Television noted, a more versatile playback technology in educational television is the one thing needed to return to the classroom the flexibility that the present uses of broadcasting deny it. With such a technology, according to the commission, "the teacher can select the program, play it at the moment of his own choosing, replay it at will in whole or in part, interrupt it for comments." By providing this technology, the EVR System can help educational television make the "massive contribution to formal education" that the Carnegie Commission feels is not only possible, but is imperative.

Today, teachers must schedule classwork around broadcast hours, and they have no control over what appears on the screen — or when. With the EVR System, the teacher can integrate educational films more effectively into the smooth flow of his classwork. He can preview and choose. He can stop the program for comment or for general discussion. He can schedule lessons at his own discretion, and show his films either to individual students or to large groups by linking a single EVR player into as many television sets as he needs. He can play them in several classrooms at once. Because the equipment is easy to operate, the teacher's youngest pupils can benefit from the EVR System, with or without supervision. Since the room need not be dark, students can also take notes. With this overall convenience and versatility, the EVR System will thus supplement, and not interrupt, the teaching process.

Because EVR Cassettes are considerably more economical than conventional film, schools will no longer need to depend on central or outside audiovisual libraries—frequently at distant points. They can build their own libraries.

The EVR System in Industry, Government and the Professions

On the job, the EVR System will become a major management and training tool. With its low dollar-per-minute cost for disseminating and displaying training programs, the EVR System will sharply reduce the teaching load on over-worked instructors. Whether they are studying to be salesmen, dental technicians, lathe operators, engineers, computer programmers, soldiers, executives or astronauts, trainees will learn more and learn it faster with the EVR System. In particular, the EVR System holds great promise for training of every kind in the military establishment. The government will be able to teach the disadvantaged more efficiently and effectively. Hospitals will be able to exchange staff films on medical hygiene or new patient-care techniques; at his leisure the busy surgeon can watch closeups of new operations in his field. Scientists and engineers will see and hear about the latest developments in their areas of specialization — not just read about them.

The EVR System should eventually revolutionize the storage and exchange of information in education, industry, the arts and the home.

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