J.E.T.T. welcomes technical questions from its readers. Send your questions to Ask the Technician, J.E.T.T., 304C Moore College, UGA Language Laboratories, University of Georgia, Athens, Georgia 30602, U.S.A. All questions become the property of J.E.T.T. and are subject to editing.

## KEEPING VCR HEADS CLEAN

I was delighted to see in the premiere issue of J.E.T.T. that you were going to run a "Ask the Technician" column. Here's my question.

I use my VCR both for entertainment and for previewing video materials for use in class. Because I use it a great deal, I worry about keeping the electronic heads that translate the information for picture and sound clean. Some of my colleagues advise against using the do-it-yourself cleaning cassettes; others, tell me not to worry—cleaning the heads routinely will do more damage than not cleaning them. Can you clear up the contradictory advice about VCR heads?

K.S. Mission Viejo, California

JETTECH: Let me address the use of the doit-yourself cleaning cassette for VCR heads first. These cassettes generally use a very mild abrasive to clean the heads. This abrasive can wear down the surface of the head when it removes dust and dirt that may have accumulated on the heads. Religiously using the cleaning cartridge every week or ten days is unnecessary. The need for cleaning heads routinely does not exist. Clean the heads when you notice the following symptoms:

Muffled Sound. When the sound on your favorite tape drops in volume, sounds as if it is being swallowed by the speakers, and makes you think that something is wrong with your hearing, it probably is the very first clue that the electronic heads on your VCR are getting dirty and need cleaning.

Visual Distortions. When Annette and Frankie in your favorite beach video look like they are enjoying a snow storm on the beach, when you think your antenna must have been somehow disconnected, or you suspect your Montessori youngster has taken Liquid Paper and dotted your TV screen, your VCR heads need cleaning. However, before you run the cleaning cassette, try the following: Play a good quality (I prefer TDK Professional) blank tape through the machine. Most often, this will be enough to remove dirt and dust from the electronic heads. If the sound is still muffled and the picture snowy, use the cleaning cassette as per instructions. More or longer use than recommended is not better. Remember, the mild cleaning abrasive can wear down heads.

If the problems of muffled sound, snowy picture, or both persist after you have cleaned the heads, there may be other problems. See your authorized dealer.

## CONFUSED BY CAMCORDER FORMATS

Before I was in the market for a camcorder, a friend told me that there are more camcorder formats than there are VCR formats. I thought he was kidding. Now that I am ready to buy a camcorder—primarily for use in my English as a Second Language (ESL) classes—I am confused by all the camcorder format offerings. Can you clear up the confusion?

R.K. Houston, Texas

**JETTECH:** Camcorders, or camera-recorder-as-one-unit, are being purchased at the rate of a million in 1987. Your friend is correct; there are even more camcorder formats than VCR formats. Before you buy your camcorder, the following distinctions about formats may be helpful.

The Camcorder VHS Format. Probably the most widely sold camcorder on the market, the VHS format is offered by manufacturers such as Panasonic and RCA. This format uses standard VHS videocassettes. Movies shot on this format can play back through a TV or monitor directly through the camcorder. The videotapes made with the VHS format camcorder can also be played back through the standard table-top VCR machines. Recording time with the VHS format camcorder, using a T-120 length tape on standard speed (for best quality video) is two hours. The VHS format camcorder weighs approximately 5 to 8 pounds depending upon which brand one chooses.

The Camcorder VHS-C Format. More and more manufacturers, like Zenith and JVC, are jumping on the VHS-C camcorder format. The VHS-C camcorder offers the user an advantage over the VHS format, namely light and small. This format uses half-inch VHS tape housed in a miniaturized cartridge, and while miniaturization makes possible a camcorder that is light and small, it restricts recording time to a maximum of 60 minutes in slow speed. The VHS-C tapes can be played back using the standard table-top VCR machines; however, in order to do this, the cartridge must be inserted into a special plastic adapter. The weight of the VHS-C camcorders is a little over 3 pounds.

The Camcorder Betamovie Format. Sony, which invented the Beta Format, markets its Beta Camcorder under the name of BetaMovie. Many Beta camcorders use what is called Super Beta—also developed by Sony—which actually increases picture resolution, making for a noticeably improved picture. BetaMovie Camcorders record for two hours on a standard cassette. The BetaMovie Camcorder, however, having no playback option, cannot play the videocassette directly through itself; the cassette must be displayed on a TV or monitor using a Beta VCR. The average weight of the BetaMovie Format Camcorder is about 6 pounds.

The 8mm Camcorder Format. The attraction

to the 8mm Camcorder format is its size—very small if compared to other camcorder formats. The blank 8mm videotape is approximately the size of the standard audio cassette. Some 8mm camcorders can record audio in two different ways: AFM (audio frequency modulation) monaural track (which all 8mm camcorders have) and PCM (pulse code modulation) digital-stereo track (which some manufacturers offer in addition to AFM). 8mm Camcorders are manufactured by an increasing number of companies, including Kodak, Aiwa, Canon and Sony. The average weight of the 8mm Camcorder is about 3 1/2 pounds. Maximum recording time is two hours. 8mm tapes will not play in halfinch VCRs.

## DECIDING BETWEEN VHS AND 8MM

How can I decide between a VHS format camcorder and the 8mm format camcorder? Can you tell me just one thing that will push me over the edge in favor of one or the other?

E.C. Baton Rouge, Louisiana

**JETTECH:** I can easily think of six of one and half a dozen of other things that you probably should consider before choosing one or the other format. However, the one thing that is probably most important is whether or not you already have VHS hardware, that is, VCRs, and software, namely pre-recorded and blank videocassettes. If you are already set up with VHS, it would seem reasonable to stay compatible and go with the VHS formats instead of setting up a dual complement of 8mm hardware and software. My feeling is that in the future, smaller will not only be better but the only thing; that is the future, however. For the present and near future, VHS formats dominate both in hardware and software. The sheer variety and quantity of prerecorded videocassettes, blank cassettes, and VCRs belong to VHS.