## PROFESSIONALLY CLEAN YOUR VCR YOURSELF

## Important Notes

\* This information is provided by the author and publisher as an aid to working with your VCR. You should always consult your service manual or owner's manual if you have further questions. Always use a qualified technician for repairs. We will accept no liability for the use of enclosed information. And you the user will render us not liable.

\*\* never repair your VCR when it is plugged in.

\*\*\* never work on your machine if it will negate your warranty.

USING YOUR VCR

The information in this manual will help you better use and clean your "magic black box" the VCR. We will cover both the beta and the VHS equipment. First we will list the general functions of the controls. Then some of the technical information on how it works, and finally how to clean it yourself including precautions.

Cassette Compartment: where the tape is inserted.

Play Speed Selector: VHS - sp-2 hours, lp - 4 hours, slp - 6 hours

Tracking Control: Adjusts picture to take out streaks.

Power: turns VCR on and off. Usually has indicator light.

Eject Button: ejects tape from machine.

Rewind Button: rewinds tapes.

Stop Button: stops VCR in any function.

Fast Forward: runs tape ahead.

Play: plays tape.

Record: push to record onto cassette.

Pause: stops recording to take out unwanted portions, i.e. commercials. Also stops playback for a short time.

Counter: use to find your recorded movie beginning and ending locations.

 ${
m TV/VCR}$ : Switch allows you to play the VCR through the TV or lets the antenna or cable signal through.

Channel Selector: selects channel your VCR is tuning in.

AC Outlet: is a convenience device for adding accessories.

Memory Record: consult your owner's manual for exact set up.

Remote Control, Wireless: operates on infra-red light - must be in line of sight with TV - harmless to eyes etc. Use good batteries.

Learning timer operation as well as all the other functions of your VCR is time well spent. It is a versatile and handy tool once you know how it operates.

Study your owner's manual for complete information on your particular model.

The video cassette in most cases has a nonrecord tab that can be removed after you have your chosen selections on tape. These must be broken out to prevent possible accidental erasure.

## HOW YOUR VCR WORKS

Your VCR is essentially a TV tuner and a recording device, followed by a retransmitting device.

Let's follow a signal through to see what happens when you record a program:

The signal comes from the antenna to the VCR. The VCR tuner selects the station the VCR will record. The signal is converted for recording use by modulators and amplifiers and sent to the heads to lay down the recording tracks.

The recording heads are usually 2 or 4 located in a small spinning drum.

The heads rotate at 1800 rpm and the tape also is moving past the heads. This allows for the proper definition.

The sound is laid onto the tape by a different head, the audio head. And the whole tape is synchronized by the pulses laid down on the bottom of the tape. (Synchronized equals made to run at the proper time.) This is done by the control head.

When you play the tape back, the magnetic lines are picked up by the heads and remodulated and amplified to be fed to channel 3 or 4 of your TV.

The heads are important to you in the cleaning process so let's list them again:

The Recording Heads are located in the spinning drum.

The Audio Head is separate and stationary and records the sound.

The Control Head lays down synchronizing pulses so everything runs at the proper time. It is also stationary.

And one not mentioned yet is the Erasure Head that clears the tape if you wish to record something else.

The only other part you need to be concerned with in cleaning is the tape guides on either side of the rotating head drums that pull the tape tight against the drum when the tape is loaded. They look like two little fingers sticking up from the base, and they move out to pull the tape from the cassette when the tape is loaded in the machine.

Now you know enough about the workings of your machine to clean the tape track.

## CLEANING THE VCR

First you must determine if it needs cleaning.

Here are the clues: loss of sound or garbled sound, or picture is blurry and streaky with a good quality cassette in play.

The very first operation is to run a cleaning tape for a few seconds in the machine on PLAY. Run it only a few seconds so you do not harm the rotating heads. NEVER clean the rotating heads with anything but the cleaning tape - it will get plugged up if you use cotton swabs or other materials.

If this clears up the problem, go no further. If not, do this:

If it is a press down top loader, you can clean it without taking it apart. For all others, the top of the cabinet comes off with the removal of a few phillips head screws.

MAKE SURE THE POWER IS OFF. DO NOT TOUCH THE ELECTRONIC OR MECHANICAL SETTINGS.

Check the tape track for foreign objects, dust, crayons, pieces of tape and remove them carefully. Then take rubbing alcohol and cotton swabs and clean the tape guides, the record (audio heads), the control head, and the erase head, thoroughly. (DO NOT CLEAN THE ROTATING HEAD IN THIS WAY) . You may then reassemble the cabinet.

If you continue having problems, consult a service technician and tell him EXACTLY what is wrong. This will save you many hours labor pay in testing. NEVER TRY TO ADJUST OR ALIGN TAPE RUNNING COMPONENTS. SPECIAL TOOLS AND GAGES SUPPLIED BY THE MANUFACTURER ARE REQUIRED. ENJOY YOUR MACHINE!