Set up and Operation of Video Cassette Recorders or "...How Do I Work This Thing??"

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*Learn Alaska Network

Designed to assist Alaskans in making optimum use of the LearnAlaska TV transmitter network, this booklet provides instructions for the operation and maintenance of videocassette recorders (VCRs). After a brief introduction, which lists state film library addresses for ordering an accompanying videocassette entitled "Set Up & Operation for VCRs and Monitors," the document is divided into seven major sections: (1) a brief history and explanation of how the LearnAlaska signal is transmitted into communities, including suggestions for improving reception; (2) directions for connecting a videotape recorder to a television with cable, a converter, and a UHF antenna (illustrations provided); (3) a list of videotape recorder functions with corresponding definitions; (4) directions for loading and unloading a videocassette; (5) instructions for recording a program off the LearnAlaska channel; (6) troubleshooting tips; and (7) suggestions for preventing equipment problems. A diagram which illustrates the component parts of the LearnAlaska telecommunications network is included. (JB)
Set Up and Operation of Video Cassette Recorders or

"how do I work this thing?"
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Videocassette recorders (VCRs) are very easy to operate. Most home stereos are more complicated than VCRs. The following is a general overview of the basic hook-up, functions and operation of videocassette recorders. If, after reading this booklet, you still have questions or are unsure of how to operate your videocassette recorder (they all differ slightly), we recommend that you consult the instruction manual for your equipment.

In addition to this booklet, a 27-minute videocassette is available through the State Film Library entitled "Set Up & Operation for VCRs and Monitors."

To obtain this program, send a blank videocassette (your format) to one of the State Film Libraries. Order #ASL 85171. You may keep the copy you receive.

This program is also available on loan through the State Film Library.

ANCHORAGE FILM LIBRARY
650 International Airport RD.
Anchorage, Alaska 99502

JUNEAU FILM LIBRARY
Pouch G
Juneau, Alaska 99811
LEARNALASKA Signal In Your Community

A question frequently asked of the LearnAlaska personnel is an explanation of how the broadcast television signal is received and distributed in the local community. In some aspects, all of the planned 250 instructional television sites in the State receive the signal in the same basic way—via satellite distribution. In almost all cases (there are some exceptions especially when cable companies are in a community) the signal is broadcast in the community only via a low power television transmitter.

The television signal is beamed to the entire State at the same time and is received in the local community by a satellite receiver dish. The LEARNALASKA television signal is received by the satellite dish which is aimed at the Aurora satellite. The signal travels from the satellite dish to a receiver in a building located near the satellite dish. From that receiver, a signal is carried via cables to a low power TV transmitter.

The State of Alaska was the first to own and operate low power TV transmitters. The LEARNALASKA Network was the world's first and largest low power TV transmitter network in existence. In most communities the low power TV transmitter is of the VHF type (channel 2 thru 13). In some communities UHF transmitters (channel 14 thru 83) are located. Almost all communities have their own LPTV transmitter. In a few cases, two or three communities may be receiving the signal from one transmitter. For example, the community of Anderson receives the LEARNALASKA Network on channel 55 from a transmitter which is located in Nenana. Another example is where Kenai and Soldotna receive the LEARNALASKA signal on channel 23 from a transmitter which is located on top of Sterling Mountain. With few exceptions, these transmitters can reach a distance of approximately 3 to 5 miles.

In all cases these transmitters, whether UHF or VHF, require the television set be connected to an antenna and most likely an outdoor antenna will be required. Because of the low wattage of the transmitters numerous household appliances can cause interference when an individual uses just the indoor type of "rabbit ear" antenna.

In some communities where the State operated entertainment TVP Project has been in existence for some time, residents have purchased outdoor antenna and signal boosters to more adequately receive the entertainment channel signal. These signal boosters or amplifiers, while helping to receive one channel, can actually be causing interference in receiving the other channel. In situations where a combination UHF/VHF antenna is used and a booster has been applied to the VHF cabling from the antenna, an additional booster must be used on the UHF cable in order to properly receive a UHF channel.
In general, when aligning outdoor antennas residents should aim the antenna in the same direction as the white satellite receiver dish that is located in the community. If there is a local cable company, radio or TV station, there may be more than one satellite receiver dish in the community. It is important to determine which of the satellite dishes are operated by Alascom or the State of Alaska. If citizens are uncertain as to where the transmitter is located in their community, anyone can call the toll free Zenith 3800 number at the LEARNALASKA Network Operations Center and request that information.
Graphic by Bob Frampton, Department of Administration, Telecommunications Services.
CONNECTING THE RECORDER TO THE TV

IF YOU RECEIVE LEARNALASKA ON CABLE:

1. Plug in the power cords on the TV and the VCR.

2. Connect the end of the cable to "VHF IN" on the back of the VCR. (See Below)

3. Connect a patchcord from the VCR "VHF OUT" terminal to the TV "VHF ANTENNA IN" terminal.

NOTE: If the set contains only screw-type VHF antenna terminals, a MATCHING TRANSFORMER must be used. (See Below)

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**TV MATCHING TRANSFORMER**
(75 ohm → 300 ohm)

This is supplied with most VCRs or can be purchased at a hardware store, or at stores that sell VCRs.
IF YOU HAVE CABLE WITH A CONVERTER:

1. Plug in the power cords on the TV and VCR.

2. Connect one end of a cord (a patchcord, usually provided with the VCR) to the converter's "SIGNAL OUT" or "LINE OUT" terminal. The output terminal on your converter may not be labeled quite this way.

3. Connect the other end of the patch cord to the TV "VHF ANTENNA IN" terminal. If the TV set contains only screw-type VHF antenna terminals, a MATCHING TRANSFORMER must be used. Please see page 4 for instructions and explanation.

IF YOU RECEIVE LEARNALASKA THROUGH A UHF ANTENNA:

1. Plug in the power cords on the TV and VCR.

2. Attach the end of the UHF antenna cable to the "UHF IN" terminals on the videocassette recorder.

3. Attach a UHF cable to the "UHF OUT" terminals on the VCR.

4. The other end of the UHF cable should be connected to the UHF antenna terminals on the TV set.
The following diagram shows how the VHF and UHF cables should be hooked up between the videocassette recorder and the television. Only one of these hookups is necessary to play the VCR.

Note that both methods have been shown in one illustration.
VCR BASIC OPERATIONS

STOP button: Press the STOP button to stop any function. The machine will discontinue recording, rewinding, playback, etc.

REW button: When pressed, the tape will start rewinding and will continue doing so until you press STOP or until the tape rewinds to the beginning and stops automatically.

FF button: "FF" stands for "fast forward". When pressed, the tape will start advancing rapidly. This allows you to move ahead to another segment, etc.

RE button: Stands for "RECORD". Will not operate unless you simultaneously press "PLAY" with the RECORD button.

PAUSE/STILL button: The tape will stop temporarily when this button is pressed. The picture will be seen on the screen but it will not move and some distortion of the picture may appear. To continue playing the tape, simply press "PLAY" to cancel the "PAUSE" function. NOTE: DO NOT LEAVE ANY VIDEOCASSETTE RECORDER IN THE "PAUSE" MODE FOR LONGER THAN A MINUTE. THE ROTATING HEADS COULD WEAR A HOLE THROUGH YOUR TAPE.

PLAY button: Use this to playback pre-recorded tapes. Also used with the RECORD button to record a tape.

POWER button: Press this to turn on/off the machine.

SHUTTLE SEARCH: Sometimes called "FF Search" and "REW Search". Operates in two directions -- forward and backward. This allows you to advance or rewind the tape quickly while at the same time seeing the material on the screen. With this function you can locate specific segments on the tape easily. On some machines the SEARCH mode is obtained by pressing "FF" or "REW" while the machine is in the "PLAY" mode.

DEW LIGHT: A feature on some VCRs that, when illuminated, indicates that condensation has formed inside the machine. Machines usually will not operate if the DEW LIGHT has come on.
LOADING/UNLOADING A VIDEOCASSETTE

Videocassette recorders differ slightly with individual brands, but the following should give you a good idea how to load or unload a videocassette from your machine.

Some machines have a cassette tape "housing" that pops up when the EJECT button is pressed. These are "top Loading" machines. Others have an automatic loading system that is similar in operation to 8-track music cartridges. These are front-loading machines.

FOR TOPLOADING MACHINES:

1. Press the EJECT button. This will raise the housing (if it's down).

2. Insert the videocassette. The tape must be the correct format (1/2-inch VHS in a VHS machine, etc.) and must be inserted properly:

![Inserting Cassette]

The machine will not readily accept an upside-down or backwards tape, or one of the wrong format, so if you have to force the tape, check it out -- you may be doing something wrong.

3. Press the a cassette housing down gently until it locks into place.

4. To remove the tape, make sure the machine is in the STOP mode. Then press EJECT to raise the housing. Remove the tape.

5. Depress the housing when the machine is not in use. This helps keep dust out of the machine.

FOR FRONTLOADING MACHINES:

1. Position the tape correctly in front of the loading slot. Guide the cassette into the machine until the "auto-load" takes over. This will pull the tape into the machine automatically.

2. To remove the tape, make sure the machine is in the STOP mode, and press EJECT. The machine will eject the tape automatically.

NOTE: Before returning videocassettes to their cases, it's a good idea to rewind them all the way -- this helps preserve the life of the tape. Also, do not leave videocassettes in the machine for an extended period of time when the machine is not in use. This is not good for the tapes or the machine.
HOW TO RECORD A PROGRAM OFF THE LEARNALASKA CHANNEL

1. Have the recorder and the TV hooked up and ready to go. Check the power cords to make sure they're plugged in. Tune the television to the LearnAlaska channel.

2. Ten minutes before the program is scheduled to begin, load a blank videocassette into the machine. Run the tape ahead for a few seconds (press PLAY) and then stop the machine (press STOP). Do not use the PAUSE function while you're waiting for the program to air.

3. Set the AUDIO MONITOR switch to "MIX". This enables you to record both channels 1 and 2 of the audio (sound). If your machine is set, for example, to record CH. 1 and the program's sound is on CH. 2, you will miss the sound portion when you record.

4. Find the switch on the VCR labeled "LINE/TV" (or "LINE/TUNER"). Switch this to the "TV/TUNER" position.

5. Before the desired program comes up on the screen, while the screen is black (if possible), simultaneously press PLAY and RECORD. This allows the recording tape to get up to speed before the actual program starts.

6. When the program is over, STOP the machine, REWIND the tape, and return it to its case. You may want to label it with the date, series title, and individual program title of the recording. By checking the 1984-85 LearnAlaska Catalog, you can find out the grade level and curriculum area as well as when the tape should be erased; this date should be entered on the label, also.

7. TO RECORD WITH A TIMER: Most VCRs can be pre-set to automatically record a program when you're not around.
   A. Make sure the present time setting and day of week setting is correct.
   B. Select the TV channel to be recorded. Turn the "LINE/TV" switch on the VCR to "TV".
   C. Load a cassette tape making sure there is sufficient tape for the program to be recorded.
   D. As all machines vary in this procedure, please consult your Operating Manual to find the procedure to:
      --Enter in a "program start" time
      --Enter in a "program stop" time

NOTE: It is impossible to operate a VCR that has been programmed to record later in the day/week. The timer must be off to use the VCR for playback, etc.
IF SOMETHING HAPPENS DURING THE RECORDING PROCESS WHICH RESULTS IN NO COPY OF THE PROGRAM, DON'T PANIC!! MOST SERIES ARE AVAILABLE FROM THE STATE FILM LIBRARIES. FIRST, CHECK THE LEARNALASKA CATALOG FOR THE ASL NUMBERS OF THE PROGRAM(S) YOU MISSED. THEN COMPLETE AN ORDER FORM FOR A PERMANENT OR LOAN COPY OF THE PROGRAM. PLEASE SEE THE LEARNALASKA CATALOG, "HOW TO ORDER FROM THE FILM LIBRARIES".

OCCASIONALLY, IT MAY BE POSSIBLE FOR LEARNALASKA TO RE-BROADCAST A PROGRAM UPON REQUEST.
## TROUBLE SHOOTING

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<th>PROBLEM</th>
<th>HAVE YOU CHECKED...?</th>
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<tbody>
<tr>
<td>1. Machine and/or TV will not come on.</td>
<td>Are the power cords plugged in?</td>
</tr>
<tr>
<td>2. No sound.</td>
<td>Is the audio monitor set for &quot;mix&quot;? Is the volume on the TV turned up?</td>
</tr>
<tr>
<td>3. No picture tho' TV is on.</td>
<td>Is the tape blank? Is the TV turned to channel 3 or 4? Is the brightness or contrast turned up? Have you checked the instruction book to see if everything is hooked up properly?</td>
</tr>
<tr>
<td>4. Picture is on but is distorted.</td>
<td>Have you adjusted the tracking knob? You'll usually find this just under the front edge of the recorder - slowly turn it left or right to correct some picture defects. Have you adjusted the TV's fine tuning knob? Did you check the color/tint knob?</td>
</tr>
<tr>
<td>5. Tape will not rewind.</td>
<td>Is the tape already wound to the end?</td>
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| 6. RECORD button doesn't operate. (Light won't come on)                | Has the tape in the cassette run out? Is the DEW light on? Has cassette erasure tab been removed? Every videocassette comes with an erasure prevention tab. On 3/4-inch tapes, the erasure tab is located on the bottom of the cassette and is a round, red button. When the button is in place, the tape can be erased/recorded. To save a tape from possible erasure, remove the red button and discard it. If, at a later date, you wish to erase the material, a piece of masking tape over the hole will allow you to do so. The erasure tabs on
7. Tape doesn't run in the RECORD mode.

8. Clear TV picture but during the playback the picture isn't clear.

1/2-inch VHS and BETA videocassettes are located on the back side of the cassette. To preserve a recording, break out this tab. To re-record such a tape, simply stick a piece of tape or cardboard over the gap.

Is the PAUSE button on? Press PLAY.

This symptom will occur when the recorder has been used for a long period of time. During this time, a deposit of oxide has built up on the video heads which must now be cleaned. DO NOT ATTEMPT to clean the video heads, as improper head cleaning procedures may irreparably damage the heads. Please contact an authorized service agent.
PREVENTING EQUIPMENT PROBLEMS

1. Avoid getting the equipment wet. Do not use in areas of high humidity.

2. Avoid jarring the equipment.

3. Do not block the air vents of the VCR. Allow for air circulation.

4. Avoid dust, if possible. Cover the machine if it's not going to be used for awhile.

5. Do not place food or drink on or near the machine.

6. Treat the tape transport gently. Allow the machine to complete one function (STOP, for example) before pressing another button.

7. Do not leave the machine in the PAUSE/STILL mode for more than a minute. The rotating heads could wear a hole through the videotape.

8. Allow equipment and tapes to "warm up" if they've been exposed to cold weather. Leave cold equipment in packaging/wrapper for several hours to allow it to warm up gradually--this prevents accumulation of condensation.

9. Care of videocassettes:
   a. Avoid violent vibration or shock.
   b. Do not place tapes in a location with a strong magnetic field (near a motor, transformer, magnet, etc.)
   c. Never place or store tapes in direct sunlight.
   d. Store cassettes in their cases and store the cases in a vertical position.
   e. Avoid storing tapes in a high humidity area.
   f. Rewind tapes completely before storing.

NOTE: If a cassette tape has been broken or damaged, discard the tape. It cannot be repaired and any attempt to do so may result in a damaged VCR if the "repaired" tape is played.