

TECHNICAL NOTE 05-01
Water Restraint System (WRS)
Summary of VCR Programming and Operation

Dated: March 22, 2001

This information is in addition to the VCR manual and provides information concerning the operating modes used with the WRS.

The WRS VCR is a time-lapse and real-time VCR that is best suited for operation with the WRS. The time-lapse function allows the tape to move across the head at a very slow speed meaning that very little tape is used when no alarm is occurring and the tape is prepared to record instantly when an alarm does occur. When an alarm occurs the VCR automatically moves from the time-lapse mode (tape moving very slowly) to the real time mode (tape recording at real time speed) just like any recorder. When the alarm condition is completed (meaning the WRS has returned to standby mode) the VCR automatically returns to the time-lapse mode.

Wiring and Setup

The VCR plugs into the AC power plug strip. There are two video connections: The video input (IN) cable from the microcomputer video connector and the video output (OUT) cable that runs to the monitor. The only other connection is the two-wire alarm activation cable that connects to the alarm input contacts on the VCR rear panel.

1. Put a tape in the VCR before starting setup.
2. The VCR power button must be turned on at the beginning of each shift. This is because the WRS power strip turns off the power when the WRS is turned off.
3. The VCR has many more features than we use with the WRS. We will program only the functions that we utilize.
4. Once the VCR is programmed, the programming is retained even when the VCR is ruined off or unplugged.
5. Since the VCR will be turned off when the WRS is turned off, the VCR must be turned on (by pressing the VCR power button on the VCR) when the WRS is powered up.

Programming

1. Make sure all VCR wiring connections have been completed.
2. Turn on the VCR power (The power light will come on and the VCR display will appear)
3. Insert a new blank video tape
4. Turn buzzer switch to OFF.
5. Video mode switch to AUTO
6. Remote switch to OFF
7. Press counter reset button to set counter to 0
8. Programming uses the on-screen instructions on the video monitor. The monitor must be on to proceed.

Menu Screen Programming

1. Press the “display” button on the VCR front right to get the first menu screen on the video monitor.
2. To set the clock:
 - A. Use the “shift” button (VCR front right) to select the *Clock Set*. Press “set” to enter the clock setting screen.
 - B. Use the “shift” button and then the “set” button to select:
 - Daylight savings time: IN
 - Set Month
 - Set Day
 - Set Year
 - Set Time
 - C. Press “display” to return to primary menu screen.
3. To perform the VCR Setup
 - A. Use the “shift” button to select the *Setup*.
 - Press “set” to enter the setup screen.
 - This mode sets the VCR alarm recording conditions.
 - B. Use the “shift” button and then the “set” button to select:
 - Alarm Rec. Time: Manual (allows the alarm contact to start recorder)
 - Speed: A 2H (allows 2 hours of recording during alarms)
 - Restart Record to OFF (not used)
 - Tape end mode: STOP (not used)
 - Alarm: STOP (not used)
 - Record Trigger Sel: FIXED (allows alarm contact to start recorder)
 - C. Press “display” to return to primary menu screen.

4. To perform the VCR display mode setup
 - A. Use the “shift” button to select the *Display Mode*.
 - Press “set” to enter the setup screen.
 - This mode sets what words will appear and be recorded on the video screen.
 - B. Use the “shift” button and then the “set” button to select:
 - Date: ON (puts date on video screen)
 - Time: ON (puts current time on video screen)
 - Speed: OFF (VCR speed not needed on screen)
 - VCR: OFF (VCR number not needed on screen)
 - Alarm: ON (puts the alarm and alarm number on video screen)
 - 12/24H: 24H (puts on screen time in 24 hour format)
 - Character lines: 6 (allows 6 lines on video display)(not used)
 - C. Press “display” to return to prior menu screen.
5. The next three functions on this screen: *Program, Alarm Recall, and Time Date Search*, are NOT USED by the WRS and should not be changed.
6. Press “display” to return to primary menu screen.
7. Press “display” again to remove the programming menu from the video display and return to the video monitor to normal system operation.
8. To correctly place the on-screen video wording to the proper place on the video monitor:
 - While watching the video screen, use the “Location Select” buttons on the VCR front right to move the on-screen “words” to the lower right of the video screen.
9. To set the recording time to the “LO 1” which allows almost zero tape use when the WRS is not in alarm mode:
 - While watching the display on the front of the VCR, use the “Time Mode” buttons on the VCR front right to select the LO 1 mode as shown on the VCR display.
 - In the LO 1 mode the VCR is set in the recording pause mode. When in this mode and the VCR continues for more than 1 minute without an alarm, the tape is forwarded one field to protect the tape and the video head from damage.
10. This is all that should be required for programming the VCR for WRS operation.

Note: Regarding the display screen on the front of the VCR:

1. The VCR front panel display contains the word “ALARM” in a box that will flash whenever an alarm has appeared on the VCR. This is not a problem and it is recommended that you just leave the display flashing.
2. If you want to stop the flashing “ALARM” you must reset the alarm counter to zero as follows:
 - A. Press the “Counter Alarm” button on the VCR front left middle until you see the alarm counter, i.e., A-XX.
 - B. Press the “Counter Reset” button on the VCR front left middle. The alarm count will be reset to zero and the “ALARM” alarm lamp will be turned off.
 - C. Press the “Counter Alarm” button again to return the VCR display to the tape counter mode, i.e., XXXX

Using The VCR As A Service And Maintenance Tool

1. The video titling system installed inside the microcomputer enclosure displays the system’s operation on the video monitor and this information is recorded by the VCR.
2. You can record this information in real time if you are investigating an intermittent system problem and a constant record of system operation is important. For example, if the system has a pressure problem or doesn’t always start, a recording of several hours’ of operation may show the nature of the problem when viewed during playback.
3. You can place the VCR in the real time mode by changing the recording time mode from LO 1, to a real time mode such as a 6. Allowing for 6 hours of continuous recording on one tape. Place the VCR in the “record mode” by pressing the REC button. Press STOP to stop recording as with any VCR.
4. You may want to use a special maintenance tape for this recording so you do not interfere with custody operations.
5. Be sure to return the VCR to the proper recording mode following the maintenance action.

More information on VCR operation is contained in the VCR Instruction Manual.

f/n: VCR programming