

RT-195 EVENT RECORDER

NTSC Version



Operations Manual

AVE

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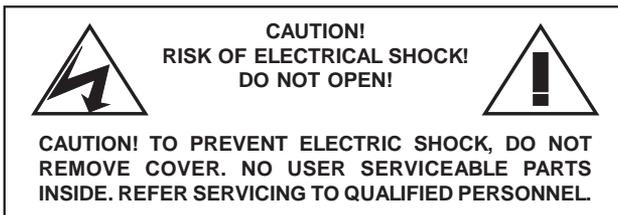
RT-195 Event Recorder

The RT-195 is AVE's newest addition to our Mobile VCR product line. The RT-195 is a low cost, 12VDC mobile event recorder with interactive on-screen programming.

The features of the RT-195 include:

- Time and Date
- 20 character title
- Recycle Record
- Power-(+) Record
- Master/ Slave configuration
- Alarm Record Dwell
- Display Settings: Horizontal & Vertical Position and Grayscale
- On-screen Alarm Counter (1-99)

The interactive on-screen programming menu is accessed through the VCR's own IR Remote using a combination of the Stop, Pause/ Still(P/S) and plus (+) and minus (-) buttons. The RT-195 can record (+) to 8 hours using a T-160 tape in EP mode.



WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE!

WARNING!

THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS MANUAL, MAY CAUSE INTERFERENCE TO RADIO COMMUNICATIONS. IT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A COMPUTING DEVICE PURSUANT TO SUBPART J OF PART 15 FCC RULES, WHICH ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST SUCH INTERFERENCE WHEN OPERATED IN A COMMERCIAL ENVIRONMENT.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE INTERFERENCE IN WHICH CASE THE USER AT HIS OWN EXPENSE WILL BE REQUIRED TO TAKE WHATEVER MEASURES MAY BE REQUIRED TO CORRECT THE INTERFERENCE.

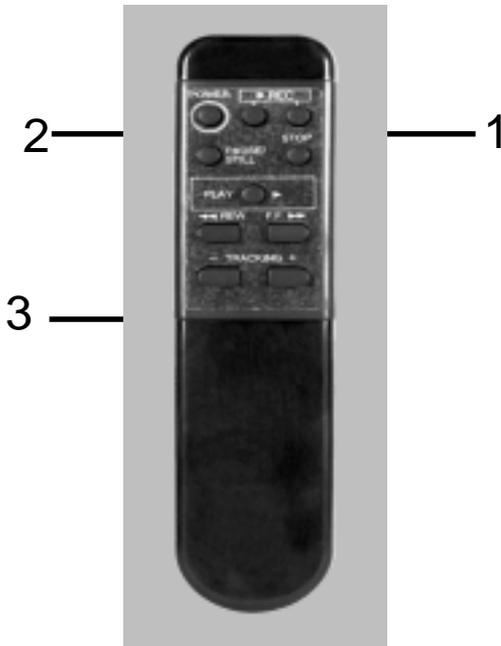
RT-195 IR Remote Control

The RT-195 is programmed with the VCR's IR Remote Control. The IR remote still maintains its normal functions, but when the On-screen programming mode is entered, several buttons take on alternate roles.

1 STOP: Press and hold the STOP button for approximately 5 seconds to access the main programming menu of the RT-195.

2 PAUSE/STILL: The PAUSE/STILL (P/S) button is used in conjunction with the arrow to access the sub menus of most menu items. In some menus, pressing the P/S button advances the active programming position to the next position to the right. **If you hold the PAUSE/STILL button down for 5 seconds programming will be reset to factory defaults.**

3 (-) & (+): These buttons serve 2 functions. In the main menu. They control the arrow cursor position. The (-) moves the arrow down and (+) moves the arrow up. Once a sub menu is entered, these buttons are used to toggle between selections or increment/decrement a selection.



RT-195 Connections



The RT-195 requires the use of composite video. To see the on-screen programming menu, you must have a video camera in and a monitor connected.

The audio and video jacks are standard RCA type jacks. You will need to use RCA to BNC adapters when using standard CCTV cameras with BNC connectors.

The Alarm Input is a contact closure to ground. The alarm pulse must be at least 200mS to trigger the VCR.

RT-195 On-screen Programming

The RT-195 can be programmed via the included IR remote control. You will need a video source in and a monitor connected to be able to see the programming menu.

To access the programming menu of the RT-195 VCR, Press and hold the STOP button for approximately 5 seconds. The following program menu will appear:

- 1 TIME/DATE**
- 2 TITLER**
- 3 RECORD**
- 4 ALARM**
- 5 TAPE SPEED**
- 6 DISPLAY**
- 7 MASTER RESET**
- 8 EXIT**

The arrow should be in front of SET TIME/DAT; if it's not, simply press the (-) or (+) buttons to move the arrow in front of SET TIME/DATE.

To set the time and date, with the arrow in front of SET TIME/DATE, press and release the P/S button.

The following sub menu will appear:

- 1 TIME FORMAT**
- 2 SET TIME/DATE**
- 3 T/D DISPLAY**
- 4 EXIT**

First of all we need to select the time format. You will have a choice between 12 HR and 24 HR (military time).

The arrow should be in front of the 1 TIME FORMAT menu. If it is not, use the (-) or (+) button to move it there and press and release the P/S button.

The currently selected TIME FORMAT will appear.

Use the (-) or (+) to toggle between the choices. Make your selection and press and release the P/S button again. Your selection will disappear and we can go on to programming the correct time.

Programming the TIME/DATE

Use the (-) button to move the arrow in front of: 2 SET TIME/DATE and press and release the P/S button.

The hour position will be flashing. Use the (-) and (+) buttons to set the correct hour (Make sure the A (am) or P (pm) corresponds to the hour in 12 hour mode). When the correct hour is displayed, press and release the P/S button. This will advance the cursor to the minutes position. Follow the same procedure to set the minutes.

Pressing P/S after you have the minutes programmed will advance you to the Day/Month/Year position, followed by the day of the week (abbreviated). Use the (-) or (+) buttons to select the correct date. When you're changing the month, you will notice that the day of the week changes at the same time. The correct day of the week will be displayed after you program the correct date.

Follow the same procedure to set the correct year.

After the correct Time/Date is set, press and release the STOP button. This will take you back to the sub-menu.

T/D Display

The RT-195 has the option of turning its display on or off. There may be applications where the time and date are being generated from a different source, but you still need the Event Recording capabilities.

To turn off the RT-195 display, place the arrow in front of :

3 T/D DISPLAY and press and release the P/S button. The current choice will appear (the default is ON). To turn the display off, use the (-) or (+) buttons to toggle between the choices. When you have made your selection, press and release the P/S button and your selection will disappear.

Use the (-) button to place the arrow in front of EXIT and press and release the P/S button. This will take you back to the main programming menu. Now press (-) again to drop down to: 2 Titr. Then press and release P/S and the Title Display will appear.

Programming a Title

The RT-195 provides you with the option of displaying a 1 line by 20 character title. This will appear as one line of 20 solid blocks, with the first block flashing. Use the (-) or (+) buttons to select the first character of your TITLE. After your selection is displayed, press and release the P/S button to advance to the next character position. Follow this procedure to complete the programming of your TITLE.

When you have programmed the last character of your TITLE, press and release the STOP button. This will return you to the main menu. Your onscreen display will show your Title right below the Time and Date. Press the (-) button to drop down to: 3 Record.

Programming Record

First you will need to access the sub-menu for Record by pressing and releasing the P/S button, and the following sub-menu will appear:

- 1 RECYCLE RECORD**
- 2 POWER UP REC**
- 3 MASTER/SLAVE**
- 4 EXIT**

Recycle Record

This optional feature will automatically rewind the tape at EOT and start the VCR recording again.

The choices for this feature are: ON or OFF. The default is OFF. To turn this feature on, from the main menu place the arrow in front of 3 RECYCLE RECORD and press and release P/S. The current selection will be displayed. To change the selection, use the (-) or (+) button to toggle between the choices, OFF or ON. After your selection is showing, press and release the P/S button and your choice will disappear and you can continue programming other features.

Power-up Rec

The POWER-UP REC option will allow the RT-195 to go into the RECORD mode when power is applied. (Of course, a blank tape must be in the VCR.)

The choices for this feature are: ON or OFF. The default is OFF. To turn this feature on, from the main menu place the arrow in front of 3 POWER-UP RECORD and press and release P/S. The current selection will be displayed. To change the selection, use the (-) or (+) button to toggle between the choices, OFF or ON. After your selection is showing, press and release the P/S button and your choice will disappear and you can continue programming other features.

Master/Slave

This feature allows the use of multiple RT-195's to be used in applications where you need real time continuous recording with out interruption for more than 8 hours. Using 3 RT-195's in this configuration will allow for 24 hour real-time recording.

Using the RT-195's in a Master/Slave configuration requires the use of the EOT and Alarm input terminal strip on the rear of the RT-195. The wiring diagram appears on the next page.

To use the Master/Slave feature, each VCR must be programmed to ON in the MASTER/SLAVE menu.

To do this, from the main programming menu, place the arrow in front of 3 MASTER/SLAVE and press and release the P/S button. The current selection will be displayed. (The default is OFF).

Use the (-) or (+) buttons to toggle between the selections. When you choice is displayed, press and release the P/S button. Your selection will disappear and you can go on with additional programming or EXIT the main menu.

When the Master/Slave mode is turned on, the POWER-UP RECORD and RECYCLE RECORD are automatically defeated.

Note: Because the VCR unloads tape 5 minutes after it goes idle, it takes time to put it back to the business of recording. To overcome this problem, the RT-195 has a 4 minute timer to keep track of the idle time. After the idle mode is detected, the controller starts a timer. If the timer times out in the idle mode, the controller sends a record command and a stop command 0.25 seconds later. In this way, the VCR is always loaded with tape.

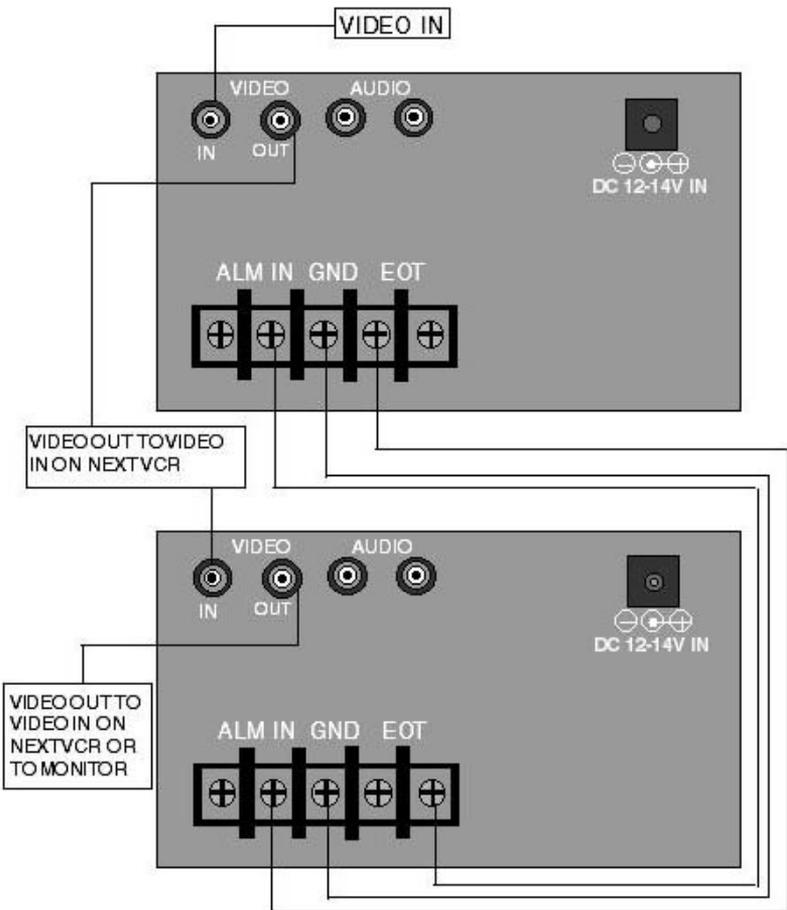
Programming Alarm

Back in the main menu, the arrow should be pointing to 3 RECORD, so press the (-) button to select ALARM, then press and release the P/S button to display ALARM's sub-menu, which should appear as follows:

- 1 ALM REC DWELL
- 2 ALARM COUNTER
- 3 EXIT

RT-195 Master/Slave Connection Diagram

Connect any number of RT-195's together following the diagram below. Program each VCR's Master/Slave option to ON in the main programming menu. Place a tape in each machine and start the first VCR recording. When the first VCR reaches the end of its tape it will automatically start the next VCR to record. The first VCR will rewind its tape to the beginning and it can be removed and a new tape placed in this machine. In the Master/Slave configuration, Recycle Record is disabled.



Alarm Record Dwell

The arrow should be pointing to ALM REC DWELL, which is a feature used in conjunction with the alarm input jack on the rear of the VCR. If you supply the RT-195 a contact closure, the VCR will alarm record for the length of time set in the ALARM RECORD DWELL menu.

The choices for the dwell time are 1S, 2S, 4S, 8S, 16S, 32S, 1M, 2M, 3M, 4M, and 5M. ("S" is seconds and "M" is minutes).

The VHS tape loading mechanism of the RT-195 only requires approximately 1 second to actually start recording from the time the VCR receives the alarm pulse. Additionally, the alarm pulse must be at least 200mS to engage the alarm feature of the RT-195.

To change the setting, with ALM REC DWELL selected, press and release the P/S button. The current setting will appear. Use the (-) or (+) buttons to toggle through the choices. Once the setting you desire appears, press and release P/S. Your selection will disappear and you can continue with additional programming.

Alarm Counter

Use the (-) or (+) button to select this feature, and the P/S button to display its current setting (the default is OFF). Use the (-) or (+) to change the setting. If you turn the alarm counter on, the number will appear below the title on your On-Screen display. You would use this feature to inform you of how many times the alarm input has been triggered, from 0 to 99 times, at which point it returns to 0. The VCR will keep count of the number of alarm inputs, regardless of the setting you choose, and you may turn it on at any time to see the actual number of inputs which have occurred. Once you have decided upon the setting, press P/S to hide your choice, press (-) to select EXIT, then press P/S again to return to the main programming menu.

Tape Speed

The settings for TAPE SPEED are EP (Extended Play) or SP (Short Play). EP is an option that effectively doubles the length of your video tape, but may only be played on other VCR's with the same

option. SP is the standard, and is the default setting for the RT-195. If you wish to change the speed to EP, first select TAPE SPEED with the (-) or (+) button, then press and release P/S and you will see the setting displayed. (-) or (+) toggles back and forth between settings. After making your decision, use the P/S button to return to the main programming menu.

Note: After the tape speed is set, it cannot be changed by pressing the SP/EP button on the remote because it is controlled by the VCR controller.

Display Setting

This menu allows control of the Horizontal and Vertical position of the on-screen display and the Grayscale level. To use this feature, place the arrow in front of 7 DISPLAY SETTING and press and release the P/S button. The following sub menu will appear:

- 1 HORIZONTAL POS**
- 2 VERTICAL POS**
- 3 GRAY SCALE**
- 4 EXIT**

Horizontal Position

To change the horizontal position, place the arrow in front of 1 HORIZONTAL POS and press and release P/S. The screen will display a 5 line by 20 character text block. Pressing the (-) or (+) buttons over and over will move the display left and right on the screen. When you get it in the position you want, press and release the P/S button and this will return you to the Display Setting Sub-menu.

Vertical Position

To change the vertical position, place the arrow in front of 2 VERTICAL POS and press and release P/S. The screen will display a 5 line by 20 character text block. Pressing the (-) or (+) buttons over and over will move the display left and right on the screen. When you get it in the position you want, press and release the P/S button and this will return you to the Display Setting Sub-menu.

Grayscale

To change the gray scale, place the arrow in front of: 3 GRAYSCALE and press and release P/S. The screen will dis

play a 5 line by 20 character text block. Pressing the (-) or (+) buttons over and over will toggle the text block through the 8 levels of gray from white to black and two levels with backgrounds. When you get the gray scale level you want, press and release the P/S button and this will return you to the Display Setting Sub-menu.

Go to EXIT and press and release P/S; this will take you back to the main programming menu.

Master Reset

There may be a need to completely clear the RT-195 programming back to the factory defaults.

To perform a Master Reset, from the main menu, place the arrow in front of: 8 MASTER RESET and press and release the P/S button. The following sub menu will appear:

- 1 BACK TO MAIN MENU**
- 2 DO MASTER RESET**

CAUTION: MASTER RESET CLEARS ALL SETTINGS AND EXITS PROGRAM MODE.

To Master Reset the RT-195, place the arrow in front of:
2 DO A MASTER RESET and press and release the P/S button. You will be presented with a copyright notice which lists the software version for the RT-195. This will go away after a few seconds and the Time/Date display will appear reset back to:

12:00:00 1-01-95

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