VCR 322 PLUS MOBILE VIDEO CASSETTE RECORDER (NTSC & PAL)



OPERATION MANUAL

VHS





CAUTION! RISK OF ELECTRICAL SHOCK! DO NOT OPEN!



CAUTION! TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

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.

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1. FEATURES

- IR Remote On Screen Programming
- Universal Time/date Display, Programmable ON/OFF
- 3 Text Programmable On Screen Message Inputs
- 20-character programmable title.
- Tape speed selection (SP/EP)
- Recycle recording on/off Power Up Record
- Programmable display window position and 10 gray scales.
- Master reset sub-menu
- Tape insert auto recording detection
- Alarm Dwell 0-3 Min.
- Radar Gun Interface
- Record Protection
- Low Power Mode
- On Screen Time Remaining
- End Of Tape (EOT) Power Output
- Switched 12 VDC Output
- Optional Wired Remote

2. SPECIFICATIONS

Description

Video Input Video Output

Horizontal Resolution Video S/N Audio Output Audio S/N Audio Response Operation Temperature Power Draw Voltage Dimensions Accessories

Alarm Input

EOT End of Tape Output

Rader Gun Input

Specification

1 P-P 75 ohm Terminated 1 V P-P into 75 ohm Terminated, 2 V P-P Unterminted 220 lines B&W and Color 42 dB -5 dBm 38 dB 150Hz-8Khz -5 Deg °C to 40 Deg °C 0.7 Amp 12 to 14 VDC 250W X 94H X 260D mm IR wireless remote, Car Cord, battries, 12VDC adaptor Hi-Z or High Impedance Normally Open Mode - closure to ground trig gers alarm mode. Normally Closed Mode must be shorted and when opened triggers alarm. Open Collector, Normally Open Imax=20ma@ 12 VDC max **RS-232**

3. ACCESSORIES



4. FRONT PANEL



CASSETTE COMPARTMENT

Insert the VHS cassette into this compartment to load the tape.

POWER

DONOT USE THIS BUTTON. VCR power is controlled by the internal microprosser. The VCR will automatically power up when 12VDC applied. Red light on the power button indicate that VCR's power is ON.

STOP/EJECT

To stop the tape or eject a stopped tape. Green light on this button indicate that cassette is in the VCR.

REC/SPEED

This button can also be used to start recording manually. A Dim Red light indicates that the VCR speed is on SP mode. Green light indicate that VCR is in LP/EP mode. Orange light indicate that the VCR is recording in LP/EP mode and a dark red light indicate that the VCR is recording in SP mode. See programming section to set the speed of VCR.

SENSOR

This sensor receives the infrared signal from the remote control.

REWIND

Use this button to rewind the tape in the stop mode or to perform a reverse picture search in the play mode. A green light indicate that the VCR is rewinding the tape.

PLAY

Use this button to start the play back mode. A green light on this button indicate that the VCR is in the Play back mode.

FAST FORWARD

Use this button to fast forward the tape from stop mode or to perform a forward picture search during play back. A green light on this button indicate that VCR is fast forwarding the cassette.

AUTO REPEAT

When the tape ends and auto repeat is on then the VCR automatically starts rewinding the tape and to starts replay. A red light on this button indicates that the AUTO REPEAT is ON. The tape will auto rewind and play again indefinitely while in this mode.

5. REAR PANEL



Power:

VCR-322+ Rear View

VCR -322 Plus takes 12-14 V DC adaptor that connects to the rear of the VCR via the DB-25 connector or the DC coax jack.

Audio Output:

Connect the Audio output of the VCR to the audio input of the monitor.

Video Output:

Connect the Video output of the to Video input of the monitor.

Audio Input:

Connect audio output from the audio source to the Audio input of the VCR.

Video Input:

Connect the video output of the camera or other video source to the video input of the VCR.

Pinout for DB25 FEMALE



6. WIRED REMOTE CONTROL

If the VCR-322 Plus is located in a place inaccessible by IR remote then you may have to build and connect a wired remote to your VCR or can purchase Rm-322 wired remote. To do this you will have to wire the 4 programming buttons shown below to the DB 25 connector on the rear of the VCR. To access the VCR function remotely you must purchase an FR-9 PCB from from AVE and wire buttons to the PCB and use the 2 wire IR in connection. You may also build a wired remote with all VCR-322 features using the following equipments from a local electronics distributor.

- Momentary push buttons
- Electronics enclosure
- 4- light emitting diodes
- 4 1K 1/4 watt resistors
- DB 25 connector

4 buttons are necessary to access the on-screen programming menu of the VCR-322, and must be wired according to the following diagram.





A wired remote can also use in place of IR remote to allow simple changing of display setting as well as the on screen programing of the VCR. Follow the important programing steps to change the display settings.

Changing the Gray scale



- 1) Press and hold the Down button
- 2) Press and release the Reset button
- 3) Release the Down button
- 4) Press Down or Up to select the Gray scale
- 5) When choice is made, press and release the Reset button

Changing the Horizontal Position



- 1) Press and hold the Up button
- 2) Press and release the Reset button
- 3) Release the Up button
- 4) Press Down or Up to move the text block
- 5) When choice is made, press and release the Reset button

Changing the Vertical Position



- 1) Press and hold the Set button
- 2) Press and release the Reset button
- 3) Release the Set button
- 4) Press Down or Up to move the text block

7. IR REMOTE CONTROL



POWER:

Don't use this button. VCR power is controlled by the internal microprocessor. The VCR will automatically power up when 12VDC is applied to the VCR.

REC:

Use the combination of these two buttons pressed simultaneously to manually start recording.

PAUSE/STILL

Press during the recording to pause recording. Press during the playback to freeze the picture.

Caution: If this button is held for 6 seconds then it will master reset the VCR and clear all the programming to factory default.

SP/EP

Don't use this button. Recording speed can only be set in the onscreen programming mode.

STOP

Press this button to stop a running tape. Alternatively press and hold that button for 3 to 5 seconds to access in the programming mode.

PLAY

Press this button to start the play back mode.

REW

To rewind the tape during the stop mode and to reverse picture search in play back mode.

FAST FORWARD

To fast forward the tape during the stop mode and forward picture search in the play back mode. In programming mode use this button to access the menu selection.

TRACKING

Use (+) or (-) button to manually adjust the tracking of the picture. In the programming mode use these buttons to move the cursor upward and downward.

8. BASIC OPERATION

Insert Cassette:

- Power up the VCR.
- Insert the tape in to the cassette compartment until VCR pulls cassette in.

WARNING: Do not force the tape in the mechanism or this will demage the VCR. If 12 VDC is not applied to the VCR it will not accept the tape.

Start Recording

Alternatively, Press and release the REC/SPEED button on the front panel or on the IR Remote control to start recording.

Stop Recording

Press the Stop/ Eject button from the front panel or the Stop button of the IR Remote control to stop recording.

Playback

Press and release the Play button either from the front panel or from the IR Remote control.

Ejecting the Tape

Press the Stop/ Eject button once to stop the tape then press and Stop/Eject button again to eject the tape.

9. PROGRAMMING

9.1 ACCESSING MAIN MENU

The VCR-322 Plus can be programmed via the IR wireless or wired remote control. You will need a composite video source in and a monitor connected to be able to see the programming menu.

Following table shows the comparison of accessing the programing menu using the IR remote and wired remote control.

| FUNCTION | IR REMOTE | WIRED REMOTE | |
|---------------------|------------------------------|---|--|
| Mian Menu | Hold 'STOP' button for 3 sec | Hold 'UP' and 'DOWN' button and press and release 'RST' button and then release 'UP' and 'DOWN' button. | |
| Cursor up | '+' button | 'UP' button | |
| Cursor down | '-' button | 'DWN' button | |
| Selecting an option | 'PAUSE/ STILL' button | 'SET' button | |

This user guide is written under the assumption that user is using IR remote control to access the programming menu of the VCR-322 Plus, Press and hold the **STOP** button for approximately 3 seconds. The following program menu will appear:

| Main Menu |
|--------------------|
| Set Time/Date |
| Titler |
| Messages |
| Record Setting |
| Display Setting |
| Rader Gun Inteface |
| Master Reset |
| Exit |

9.2 TIME & DATE SETUP

An Internal clock generates time and date that is super imposed on the monitor screen. After the clock is set, the date and time modes are displayed on the monitor screen (live picture).

Display Time & Date on Screen

- 1 Under "Display Time & Date" menu place the cursor in front of T/D display and press "F.F" button of the remote control.
- 2 Press "+" or "-" button to select "ON" or "OFF".
- 3 Press the "F.F" button again to select your selection.
- 4 To exit out of Display Time & Date, place cursor in front of "Exit" and press "F.F" button.
- 5 Exit out of all the menus to activate above selection.

Note: Selecting "OFF" will turn off "Time & Date" display.

| Time / Date | | |
|-----------------|----------|--|
| T/D Display | ON | |
| Time Format | 12 Hour | |
| Date Format | MM/DD/YY | |
| Set Time/Date | | |
| Reset Time/Date | | |
| Exit | | |

Selecting Time Format

- 1 Place the cursor in front of "Time Format" and press and release the "F.F" button.
- 2 Cursor will start blinking.
- 3 Now push "+" or "-" button to select "12" or "24" time display mode.
- 4 After selecting the desired selection press and release the "F.F" button.
- 5 Exit out from all menus to activate your selection.

Selecting Date Format

- 1 Under the "Time & Date" menu place the cursor in front of "Date Format" and press remote controls "F.F" button.
- 2 Cursor will start blinking.
- 3 Chose the format from the selection yy/mm/dd or mm/dd/yy or dd/mm/yy by pressing either "+" or "-" button.

4 Exit out from all the menus to activate your selection.

Set Time & Date

- 1 Under the "Time & Date" menu, place the cursor in front of "Set Time/Date" and press "F.F" button.
- 2 Time and Date window pop on the screen as shown in the figure below.

1:11:37P 1/01/98TH

- 3 By pressing "+" or "-" button you can change the Time or Date.
- 4 Press "REW" and "F.F" button to move cursor either left or right side.
- 5 After setting the Time and/or Date press "STOP" button.
- 6 Exit out all the menus to activate the changes..

Reset Time & Date

- 1 Under the Time & Date menu select "Reset Time/Date".
- 3 Press and release "F.F" button.
- 4 It will reset the time and date to factory default.
- 5 Exit out from all the menus to activate the above selection.

9.3 TITLER

You can program up to 20 character of title on the screen. Title is places in the video horizontal line. Follow the following steps to program the title on the screen.

- 1 Press the "STOP" button of the remote control to access the main menu.
- 2 Place the cursor in front of titler using "+" or "-" button then press and release "F.F"
- to

accept the selection.

- 3 Use "+" or "-" button to enter alphanumeric character.
- 4 Use "F.F" button to enter next character or use "REW" button to edit previously entered character.
- 5 You can enter up to 20 character in a title.
- 6 After entering the title press and release the "STOP" button to exit out title editing mode.
- 7 Exit out of main menu to activate the titler.

| THINGS TO KNOW |
|---|
| "-" button moves the alphabet in ascending order and numerics in descending orider. |
| "+" button moves the alphbets in descending order and numerics in ascending order. |
| "F.F" button move the cursor toward right position. |
| ":REW" back space. |
| "STOP" Exit out of editing mode |
| |

9.4 MESSAGES

VCR- 322 Plus has three messages input, each one a 10 character display. The default settings for 3 messages are LTS (lights), SRN (siren), and BRK (break). The DB 25 pin connection information are shown in the figure below.



To change the default setting of the messages, follow the following instruction.

- 1 Press and hold the "Stop" button of the indicator for 5 seconds, main menu will pop up on the screen.
- 2 Place the cursor in front of "Message" using "+" or "-" button.

| | Set Message | |
|-----------|-------------|--|
| Message 1 | | |
| Message 2 | | |
| Message 3 | | |
| Exit | | |

- 3 To make this selection press the "F.F" button, following menu will pop up on the screen.
- 4 Place the cursor in front of message that you want to change and press "F.F" button.
- 5 Blinking cursor will appear the screen.
- 6 Enter the latter or numeric using "+" or "-" button.
- 7 After entering the first latter press "F.F" button to move the cursor in the next place.
- 8 Again use "+" or "-" button to enter next latter.
- 9 Repeat steps 6 to 8 until you enter the complete title.
- 10 After entering the title press "Stop" button that will return to Message sub menu.
- 11 Exit out of sub menu to activate the changes.

9.5 RECORD SETTINGS

Access the submenu of this item by placing the arrow beside it and pressing "F.F". The following submenu will appear:

| | Recording Setting |
|------------------|-------------------|
| Recycle Rec | OFF |
| Rec-over Protect | OFF |
| Power-up Record | OFF |
| Alarm Rec Dwell | 3min |
| Exit | |

RECYCLE RECORD

If you turn on this feature, then, when a videotape reaches the end, the VCR-322 Plus will automatically rewind the tape and record over previous information.

<u>REC OVER PROTECT</u>

If you turn on this feature, the VCR-322 Plus will definitely NOT record over previous information. Instead it will search the tape to find the end of the recording and begin the new recording there.

POWER-UP REC

If you turn on this feature, and a video tape is already in the VCR, recording will begin as soon as the VCR is powered up.

The default for these first 3 settings is OFF. To change any or all settings to ON, place the arrow beside the item; press "F.F" and the arrow starts blinking. Press "–" or "+" to switch between ON or OFF. Make your choice and press "F.F". again to save the selection and return to the submenu.

ALM REC DWELL's

Alarm Dwell's default is 1 minute; the settings available are: 0, 1, 2, 5, 10, 15, 20, and 30 minutes. The setting you choose will be the minimum recording time after the Alarm Record Signal goes from high to low, or active to inactive. To change the default settings of alarm Record Dwell, place your cursor infront of Alarm Rec Dwell under the Record settings menu and press and release the "F.F" button. Use "+" or "-" key to select the required time. After making the selection press the "F.F" button it will return to the Record settings menu.

TAPE SPEED

The default setting for this feature is T120/EP in NTSC mode and E180/SP in the PAL mode. Consult the following table for correct mode of recording. An EP setting will triple the number of minutes of recording time, i.e. 3 x a 120 or 160 min. tape. An SP setting enables the exact number of minutes of recording time, as stated on the tape (usually labeled T120 or T160).

When you are finished with this submenu, move the arrow to EXIT and press "F.F". to return to the main menu.

| TYPE | RECORDING MODE | SYSTEM | RECORDING TIME |
|------|-------------------|--------|-------------------|
| T120 | SP | NTSC | 2 hrs |
| T120 | EP | NTSC | 6 hrs |
| T160 | SP | NTSC | 3 hrs |
| T160 | EP | NTSC | 8 hrs |
| T180 | EP | NTSC | 9 hrs |
| E180 | SP | PAL | 3 hrs |
| E180 | LP | PAL | 6 hrs |
| E240 | SP | PAL | 4 hrs |
| E240 | LP | PAL | 8 hrs |

9.6 DISPLAY SETTINGS

VCR 322 plus adds the alphanumeric information to the video signal from the camera and sends it for recording or to the monitor. Display setting let you select the position, gray scale and format of the text. Following are the option in display settings.

Display Format

Display format display alphanumeric information either on top or bottom of the screen. To set the display follow the following instruction.

- 1 From remote control press the "STOP" button for 5 seconds, main menu will pop up on the screen.
- 2 Under the main menu move cursor in front of "Display Setting" and press "F.F" button.
- 3 Display Setting menu will pop up on the screen as shown in figure below.

| Display Setting | |
|------------------------|--------|
| Display Format | Bottom |
| Horizontal Position | |
| Verticle Position | |
| Gray Scale/ Background | |
| VCR Status | |
| Exit | |

- 4 Under the Display setting menu place cursor in front of "display Format" using "+" or "-" button.
- 5 To select display format press "F.F" button.
- 6 Now choose either "Top" or "Bottom" using "+" or "-" button.
- 7 Press "F.F" button to chose your selection.
- 8 Exit out from all the menus to activate your selection.

Horizontal Position

Horizontal position set the alphanumeric text position horizontally. Follow the steps to set the Horizontal position.

- 1 Under the display setting menu place your cursor in front of "Horizontal Position".
- 2 Press the "F.F" button to select the horizontal position.
- 3 A small box will pop up on the screen.
- 4 Press "+" or "-" button to select the appropriate position.
- 5 After selecting the position press the "F.F" button
- 6 Exit out from all the menus to activate your selection.

Vertical Position

Vertical position sets the alphanumeric text position vertically. If Display Format is set on "TOP" then the vertical position lets you choose the position from the top of the screen to middle of the screen. If the display format is set to the bottom then the vertical position can be moved from the middle of the screen to the bottom of the screen. Follow the steps to set the vertical position.

- 1 Under the Display setting place the cursor in front of vertical position.
- 2 Press the "F.F" button to make "vertical position" a selection.
- 3 A small box will pop up on the screen.
- 4 Press "+" or "-" button to select the appropriate vertical position.
- 5 After selecting the vertical position press the "F.F" button.
- 6 Exit out from all the menus to activate your selection.

Gray Scale / Background

Gray Scale/ Background color sets the gray scale and background color of the alphanumeric text on the display. Follow the procedure to set the gray scale or background color.

- 1 Under the Display setting place the cursor in front of gray scale/ back ground color..
- 2 Press the "F.F" button to make "gray scale/ Background color" a selection.
- 3 A small box will pop up on the screen.
- 4 Press "+" or "-" button to select the appropriate gray scale or back ground color.
- 5 After selecting the gray scale or back ground color press the "F.F" button.
- 6 Exit out from all the menus to activate your selection.

Tape Counter

Tape counter if on displays the time left to record . To turn on the Tape counter follow the instructions.

- 1 Under the Display setting place the cursor in front of tape counter.
- 2 Press the "F.F" button to make "Tape counter" a selection.
- 3 Press "+" or "-" button to turn VCR Status either "ON" or "OFF".
- 4 After making selection press "F.F" button again.

5 Exit out from all the menus to activate the selection.

VCR Status

VCR Status if on displays all the VCR operating modes on the screen. Follow the procedure to turn the VCR Status On/Off.

- 1 Under the Display setting place the cursor in front of VCR Status.
- 2 Press the "F.F" button to make "VCR Status" a selection.
- 3 Press "+" or "-" button to turn VCR Status either "ON" or "OFF".
- 4 After making selection press "F.F" button again.
- 5 Exit out from all the menus to activate the selection.

9.7 RADAR GUN INTERFACE

The radar gun interface submenu displays the choices of the manufacture of the radar gun to select. This menu also the lets you set the baud rate to the interface with the specific radar. Following menu will appear if you select the radar gun interface from the main menu.

| Rader Gun Interface | |
|---------------------|--|
| Select Rader Gun | |
| Set Baudrate | |
| Exit | |

<u>Select Radar Gun</u>

Select Radar Gun submenu lets you select the radar gun that you want to use with VCR-322 Plus. To access the radar gun interface place cursor in front of Radar gun interface and press the "F.F" button following menu will pop up on the screen.

| Select Rader Gun |
|------------------|
| None |
| Decatur Genesys |
| Decatur Hunter |
| Golden Eagle |
| LTI 20.20 |
| MPH Python |
| Municipal TS-4 |
| Rapid Fire Plus |
| RG2RS |
| Exit |

NONE

This is the default setting, and the setting you should leave chosen if you do not have a radar gun connected to the VCR.

GENERIC

This accepts any RS232 data and displays it on the monitor. This can be from computers, BAC, or other device.

DECATUR HUNTER, DECATUR GENESYS, GOLDEN EAGLE, LTI 20.20, MPH PYTHON, MUNICIPAL , OR RAPID FIRE PLUS

These are specific types of radar guns for which settings have been programmed into the VCR-322-Plus

RG2RS

This is American Video Equipment's Radar Gun Interface, which, when installed with the VCR-322-Plus, will enable the following radar guns to connect to the VCR: The RG2RS must be purchesed separately and is not included with the VCR-322-Plus.

ACM STALKER DECATUR HUNTER, GENESYS 1 & II KUSTOM KR-10SP, TROOPER MPH K-55 TARGETRON RAPID FIRE PLUS

BAUD RATE

Here you select the correct Baud Rate for your Radar gun. The choices available are: 1200, 2400, 4800, & 9600.

9.8 MASTER RESET

Master Reset, resets all the programming to factory default. Follow the steps to do a Master Reset on VCR 322 PLUS.

- 1 Under the main menu place the cursor in front of "Master Reset".
- 2 Press "F.F" button to accept that selection.
- 3 Master reset menu will pop up on the screen as shown the figure below.
- 4 Using the "+" or "-" buttons to place cursor in front of " Do Master Reset"
- 5 Press the "F.F" button to master reset the VCR 322 PLUS SW.
- 6 AVE Copy right menu will pop up on the screen notifying that VCR has been master Rested.

Warning: If you do a Master reset this will clear all settings and exit the programing mode.

10. TROUBLESHOOTING

No Power in the VCR

Check the wiring to the battery. The Red wire of the VCR 322 PLUS SW should be connected to the positive terminal through a 3A fuse. The black wire should connect with negative terminal of the battery.

Check the fuse. If the fuse blown, find out why the fuse blew and then replace it. Make sure the white wire connect to the ignition and ignition switch is on. If the VCR powers up when the temporary switch is pressed, the ignition switch connection may be faulty. Start the engine to make sure the battery voltage is high enough to power up the VCR.

No Picture on the monitor

Check the Video camera and monitor connection with the VCR. If the camera equipped with the power indicator make sure the indicator is on. Start the engine to make sure the battery voltage is high enough to power the VCR.

No Picture or fuzzy but audio is clear

The head may require cleaning. Use a cleaning tape to clean VCR head. Replace all the worn or dirty tapes.

VCR will not Record

Make sure that video tape is not write protected. Start the engine to make sure the battery voltage is high enough to power the VCR.

Power light is blinking

The VCR has detected a faulty or jammed tape. Try to un jam the tape and remove it from VCR. Be careful not to damage the VCR. Do not poke screw drivers or other tools into the VCR.

AVE'S LIMITED EQUIPMENTWARRANTY FOR VCR-322 PLUS.

AVE's Products are guaranteed to be free of defects in workmanship and material. If any failure, resulting from either workmanship or material defects should occur under normal and proper usage within the period stated below for each product form the original provable date of purchase, such failure should be repaired at no cost to the buyer for labor and if the defective product(s) is sent to AVE.

VCR 322 PLUS: One (1) year electrical parts, ninety (90) days mechanical parts, ninety (90) days labor, ninety (90) days on video heads.

This AVE warranty does not cover the following:

Products received for repair without an RMA number, sales or delivery receipt showing date of purchase by original customer.

Damages caused by incorrect use, carelessness, unauthorized alterations, improper Storage or unauthorized service installation or repairs.

Damage caused by fire, flood, lighting, vandalism, collision, act of God, or other events beyond the control of AVE.

External parts such as cabinet and key pad.

Damages resulting from loss of use, loss of time or inconvenience, cost of temporary replacement units or spares, property damage caused by this unit or its failure to work, or any other incidental or consequential damages.

Hostile operating environments.

In transit damage claims, improper handling by carrier of post offices.

Products or parts thereof which have had serial numbers removed, altered or defaced.

Damage defect or failure caused by or resulting from the operation of the unit by incorrect voltages.

The use of components that do not meet AVE specifications.

Periodic maintenance and adjustments resulting from normal use such as video head cleaning, mechanical part ware, etc.

Damage resulting from use of cleaning cassettes.

IMPORTANT: This warranty is in lieu of all other warranties, guarantees or agreements whether expressed or implied and no person, dealer, or company is authorized to change, modify, or extend its term in any manner what so ever.

Warranty Return Policy

Before sending any AVE product to the factory for warranty repair, the customer must obtain an RMA number. This number must appear on the outside of the box and on any documentation accompanying the warranty repair. When calling AVE for an RMA number, be prepared to give a complete description of the problem, the invoice number, and the address to return the repaired item to. The unit must be packed in the original shipping carton or in suitable packing offering a similar degree of protection. Separate items such as power cords, remote controls units, or transformers, should be individually wrapped so as not to cause scratches or other damage during shipment.

Please include your name, telephone number, address, a copy of Sale receipt and a complete description of all inoperative functions. Ship the product prepaid. AVE will pay for the return shipping. However, AVE is not responsible for damage during shipment.

AVE will not accept any warranty repair without an RMA number.

Freight Policy

Products and Prices are shipped F.O.B. Houston, Texas.

Refused Shipments

All refused shipments will be subject to a 15% restocking fee and freight charges.

Shipping and Return Policy and Procedure

We are fully inspected our products to insure quality and carefully packed for delivery to you in good condition. In case that you are not satisfied with our products and must return them, please follow our Return Policy and Procedure.

- No return is accepted after 30 days from the date of purchase.
- Products returned for credit must be in unused condition and contained in its orignal package.
- All return other than the products under the AVE manufacture warranty are subjected to 15% restocking and freight charges.
- Call our customer service toll free number to obtain the RMA number (Return Material Authorization) prior to the shipment of the product to return.
- The RMA number must be clearly displayed on all the shipping labels.
- The RMA number is VALID ONLY FOR 15 DAYS from the issued date.

NOTE: The RMA number is required for all returned products, i.e. warranty and non-warranty products for services and repair.