VHS

RT-195 (1022) NTSC or PAL Models

Two Speed Event Recorder

User's Guide

RT-195 VHS VCR

Included accessories:

- IR Remote Control
- Cigarette Cord Adapter
- A/V Cables
- 2 AAA Batteries
- 110VAC Adapter to 12VDC (NTSC Only)

INTRODUCTION:

Thank you for purchasing an AVE Event Recorder. You have made a wise investment by choosing the latest addition to our Mobile VCR product line. This RT-195 is an economical, 12VDC event recorder with interactive on-screen programming. All on screen programming is entered via the wireless IR remote control included with the VCR. This eliminates push-button programming for VCRs mounted in permanent enclosures or hard to reach areas. An unobstructed line of sight to the front of VCR is all that is necessary for all programming. An on-screen Alarm counter allows instant verification of alarm occurrence since the last reset. The EOT output is also available for notifying the user when the tape needs replacement. The RT-195 can also be used in a Master Slave configuration to extend the real time recording by cascading additional VCRs. This simple Cascading feature offers a unique solution to multiplexer recording to extend recording time to 24 hours or more. For Technical support, questions or comments you may reach us at:

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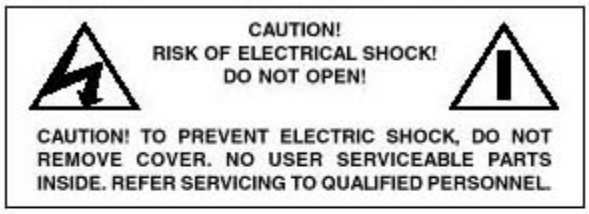
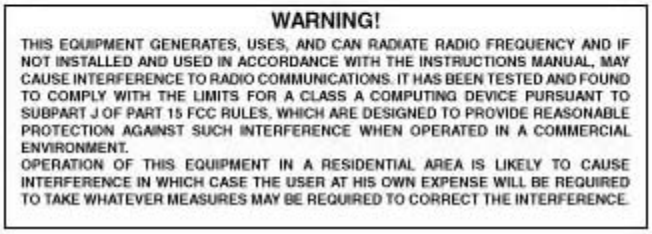
Please visit us on our website to view our extensive product line @:
http://www.americanvideoequipment.com

Once again, thank you for choosing AVE for your CCTV needs...





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FEATURES AND SPECIFICATIONS

- EOT End of Tape Output
- Alarm Input Programmable (Normally Open or Normally Closed)
- Time and Date On-Screen
- 12 hr/24hr Mode (Standard AM/PM and European time)
- Universal Date Format Programmable (DD/MM/YY, MM/DD/YY or YY/MM/DD)
- 20 Character Title
- Recycle Record On/Off
- Power up Record On/Of
- The RT-195 can record
    - NTSC: T-120 - SP 2 Hrs / EP 6 Hrs T-160 - SP 4 Hrs / EP 8 Hrs
    - PAL: E-180 - SP 3 Hrs / LP 6 Hrs E-240 - SP 4 Hrs / LP 8 Hrs

- Master/Slave Configuration
- Alarm Dwell Record 15 Sec. - 60 Min.
- Display Settings:
    - Horizontal Position
    - Vertical Position
    - Character Gray Scale
    - Character Gray Border
- Alarm Counter On-screen 0-99 Programmable On/Off
- VCR Status On-Screen Display Programmable On/Off

SPECIFICATIONS: SP Mode	
Description	**Specification**
Video Input	**1 P-P 75 ohm Terminated**
Video Output	**1 V P-P into 75 ohm Terminated**
Horizontal Resolution	**220 lines B&W and Color**
Video S/N	**42 dB**
Audio Output	**-5 dBm**
Audio S/N	**38 dB**
Audio Response	**150Hz-8Khz**
Operation Temperature	**-5 Deg °C to 40 Deg °C**
Power Draw	**0.7 Amp**
Voltage	**12 to 14 VDC**
Dimensions	**250W X 94H X 260D mm**
Accessories	**IR wireless remote, Car Cord,**
Alarm Input	**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.**
EOT End of Tape Output	**Open Collector, Normally Open Imax=20ma@ 12 VDC max**

MENU LEGEND

Set Time / Date

Time/Date

- T/D Display: ON [OFF]
- Time Format: 12 Hour [24 Hour]
- Date Format MM/DD/YY [DD/MM/YY, YY/MM/DD]
- Set Time/Date
- Reset Time/Date
- Exit

Titler

Record Setting

Recording Setting

- Recycle Rec: OFF [ON]
- Power-up Record: OFF [ON]
- Master/Slave : OFF [ON]
- Alarm Rec Dwell: 1 min [15s,30s,1m,2m,3m,4m,5m,10m,15m,30m,45m,60m]
- Alarm-In Mode : NO [NC]
- Tape Speed : LP [SP]
- Exit

Display Setting

Screen Setting

- Display Format: BOTTOM [TOP]
- Horizontal Position
- Vertical Position
- Gray Scale/Background
- Alarm Counter: ON [OFF]
- VCR Status: ON [OFF]
- Exit

Master Reset

Master Reset

- Back to Main Menu
- Do Master Reset

Exit

GETTING STARTED

Check List

Prior to installation be sure you have or are using the following:

- IR wireless remote.
- Two AAA batteries for the IR wireless remote.
- 75 W coaxial cable with male RCA phono connector for audio and video sources.
- Composite video source (camera) and monitor connected.
- 12VDC Power Supply or transformer with 2.5 x 5.5mm DC coax connector.

RT-195 IR Remote Control

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

STOP button: To access the main programming menu of the RT-195, Press and hold the **STOP** button for approximately 3 seconds.

PAUSE/STILL button: The **PAUSE/STILL** button is used in conjunction with the arrow to access the sub-menus of most menu items. In some menus, pressing the **PAUSE/STILL** button advances the active programming position to the next position to the right. If you hold the **PAUSE/STILL** button down for 6 seconds, programming settings will reset to factory defaults.

The (-) and **(+)** buttons: These buttons serve 2 functions. In the main menu. They control the arrow cursor position. The (-) button moves the arrow down and the (+) button moves the arrow up. Once a sub-menu is entered, move the arrow up or down to make a menu selection. These buttons are also used to toggle/increase/decrease values when the cursor is flashing.

ACCESSING THE PROGRAMMING MENU

RT-195 On-screen Programming:

The RT-195 can be programmed via the IR wireless remote control. You will need a composite 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 3 seconds. The following program menu will appear:

- **Set Time/Date**
- **Titler**
- **Record Setting**
- **Display Setting**
- **Master Reset**
- **Exit**

MANEUVERING INSIDE MENUS AND SUB-MENUS

Use the **(+)** or **(-)** buttons to move the arrow up or down the on screen-menu. To select press the **PAUSE/STILL** button.

EXITING MENUS AND SUB-MENUS

Utilize the **(-)** or **(+)** buttons to select **EXIT**. Once the cursor is on **EXIT** press the **PAUSE/STILL** button.

TIME and DATE

Access Main Menu, and select **SET TIME/DATE**. The following Sub-menu should appear:

Time/Date

T/D Display	ON [OFF]
Time Format	12 Hour [24 Hour]
Date Format	MM/DD/YY [DD/MM/YY, YY/MM/DD]
Set Time/Date	
Reset Time/Date	
Exit	

Make your selection by using the **(+)** or **(-)** buttons. Press the **PAUSE/STILL** button to make the selection.

FUNCTION SETTINGS

Time/Date

Time/Date Display

Time and date display can be toggled on/off by pressing and release **PAUSE/STILL** button.

Time Format

European or Standard AM/PM time is selected by pressing and releasing the **PAUSE/STILL** button.

Date Format

Date Format can be toggle through the selections by pressing and release **PAUSE/STILL** button.

Set Time/Date

Use the **(+)** or **(-)** buttons to increment or decrement numerical value. To save selection press and release **PAUSE/STILL** button. To move to next selection press and release **PAUSE/STILL** button. To return Back to sub-menu press and release **STOP** button.

Reset Time/Date

The time and date can be reset to the factory default by pressing and release **PAUSE/STILL** button.

Exit

Press and releae the **PAUSE/STILL** button to go back to the main menu.

Titler

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 **PAUSE/STILL** 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 sub-menu.

Record Setting

Programming record function is initiated by accessing main menu then, the sub-menu for **Record Setting** once selected the following sub-menu will appear:

Recording Setting

Recycle Rec	OFF [ON]
Power-up Record	OFF [ON]
Master/Slave	OFF [ON]
Alarm Rec Dwell	1 min [15s,30s,1m,2m,3m,4m,5m, 10m,15m,30m,45m,60m]
Alarm-In Mode	NO [NC]
Tape Speed	EP [SP] NTSC / LP[SP] PAL
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 factory default is **OFF**. To turn this feature on, from the main menu place the arrow in front of **RECYCLE RECORD** and press and release **PAUSE/STILL** button. The cursor will flash. 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 **PAUSE/STILL** button and the cursor stops flashing and you may continue

programming other features.

Power-Up Record

The **POWER-UP REC** option will allow the RT-195 to go into the **RECORD** mode when power is applied, considering, a blank tape is in the VCR. The choices for this feature are: **ON or OFF**. The factory default is **OFF.** To turn this feature on, from the main menu place the arrow in front of **POWER-UP REC** and press and release **PAUSE/STILL** button. The cursor will flash. 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 **PAUSE/STILL** button and the cursor stops flashing and you may continue programming other features.

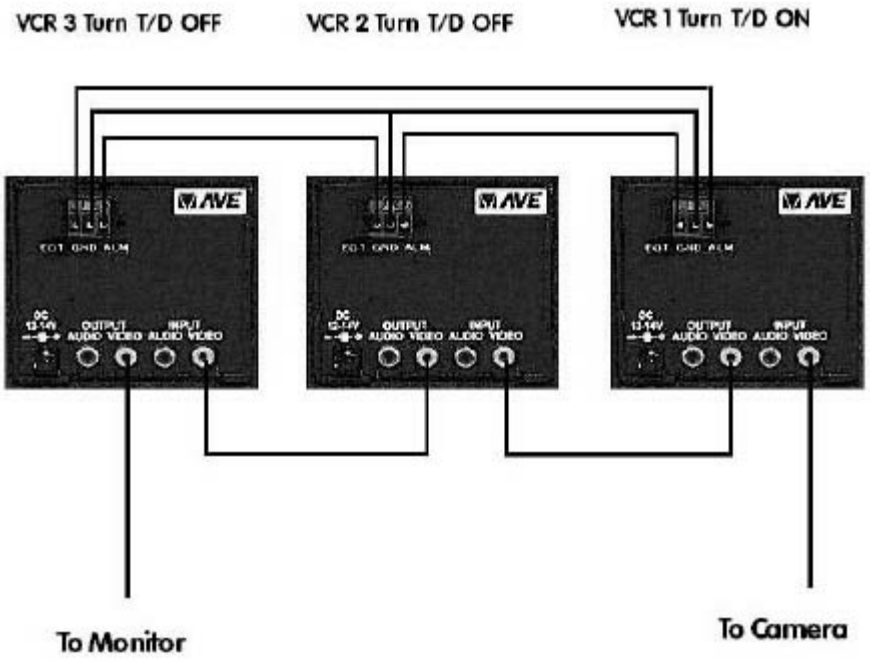
Master / Slave

This feature allows the use of multiple RT-195s to be used in applications where you need real time continuous recording for more than 8 hours. Using 3 RT-195s in this configuration will allow for 24 hour real-time recording, by using the RT-195s **EOT** and Alarm input terminal strip on the rear of RT-195. The wiring diagram appears on the next page. To use the Master/Slave feature, each VCR must be programmed **ON** in the **MASTER/SLAVE** menu. To do this, from the main programming menu, place the arrow in front of **MASTER/SLAVE** menu. From the main menu select **RECORD** and then select the **MASTER/SLAVE** sub-menu. Use the **(-)** or **(+)** button to toggle between the selections when **PAUSE/STILL** button. The cursor will flash and you can continue with additional programming or **EXIT** to the main menu. When the Master/Slave mode is turned on, the **POWER-UP RECORD** and **RECYCLE RECORD** are automatically defeated.

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.**

Typical Master/Slave Connection



*NOTE: Remember to turn off the T/D on all but one VCR. If not several T/Ds will display on screen simultaneously.

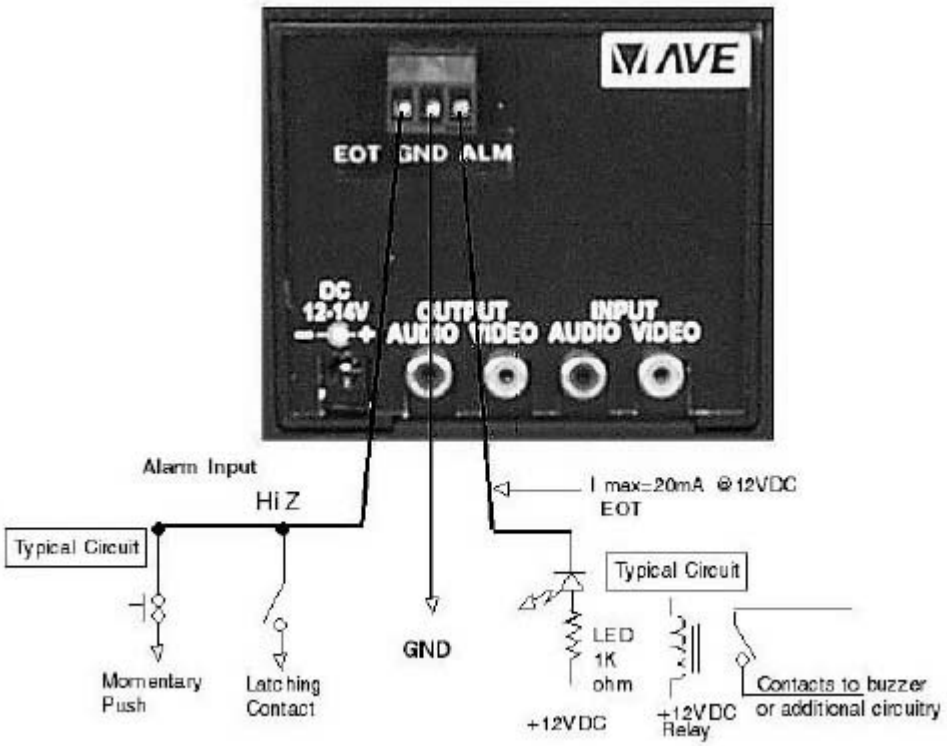
Alarm Record Dwell

This selection allows the length of time the RT-195 records for upon the acceptance of a valid alarm signal. When the alarm is initiated or in the true condition, the RT-195 stays in the alarm mode for the length of the alarm active. The following programmable dwell time settings starts timing out when the alarm is removed or in the false condition. The dwell times can be toggle through the selections by pressing and release PAUSE/STILL button. The dwell time selection defaults to 1 minute and the possible selections are 15s, 30s, 1m,2m,3m,4m,5m,10m,15m,30m,45m and 60m.

Alarm-In Mode

To utilize this function access the main menu and select Alarm-In Mode. The sense of the input signal can be either Normally Open (NO) or Normally Closed (NC) by pressing and release PAUSE/STILL button.The following diagram illustrates the connection as appeared on back of RT-195. The Alarm pulse must be at least 200 mS to trigger the N/O (Normally Open) or N/C (Normally Closed) input at the rear of the VCR.

Note: When connecting to PIR Motion sensors, do not set the alarm dwell for less than one miniute. In busy motion areas, PIRs will constantly trigger the VCR. Event recorders are designed for occasional alarm inputs not continuous. If this is your application a Time Lapse VCR is recommended.



Tape Speed

The tape speeds can be toggle through the selections by pressing and release **PAUSE/STILL** button.

Maximum Recording/Playback Time

NTSC Models

Tape speed, SP (Standard Play) or EP (Extra Long Play) or SLP (Super Long Play)

TAPE TYPE	SP	EP/SLP
T-120	2 Hrs.	6 Hrs.
T-160	4 Hrs.	8 Hrs

PAL Models

Tape speed, SP (Standard Play) or LP (Long Play)

TAPE TYPE	SP	LP
E-180	3 Hrs.	6 Hrs.
E-240	4 Hrs.	8 Hrs.

Note: Because the VCR unloads tape 5 minutes after it goes idle, it takes time to put it back to the business for 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.

Display Setting

This menu allows control of the Horizontal and Vertical position of the on-screen display and the Gray scale level. To use this feature, first access the main menu and select **Display Setting**. Once you have press and release the PAUSE/STILL button the following menu will appear:

Screen Setting

Display Format BOTTOM [TOP]

Horizontal Position

Vertical Position

Gray Scale/Background

Alarm Counter ON [OFF]

VCR Status ON [OFF]

Exit

Display Format
The display format allows you to quickly select whether you display the on-screen data at the top of the screen or the bottom. When at the top the format will be:

<time><date><day><alarm counter><VCR status>

<20-character titler><cassette out message>

When the bottom display is selected the following is the format:

<20-character titler><cassette out message>

<time><date><day><alarm counter><VCR status>

Horizontal Position

To change the horizontal position, place the arrow in front of **Horizontal Position,** press and release **PAUSE/STILL**. The screen will display a 3 line by 40 character text block. Use the **(-)** or **(+)** button to move the display left or right on the screen. Once you arrive at the desired position, press and release the **PAUSE/STILL** button and this will save your selection and return you to the sub-menu.

Vertical Position

To change the horizontal position, place the arrow in front of **Vertical Position** and press and release **PAUSE/STILL**. The screen will display a 3 line by 40 character text block. Use the **(-)** or **(+)** button to move the display up or down on the screen. Once you arrive at the desired position, press and release the **PAUSE/STILL** button and this will save your selection and return you to the sub-menu.

Gray Scale

To change the gray scale, place the arrow in front of **Gray Scale** and press and release PAUSE/STILL. The screen will display a 3 line by 40 character text block. Pressing the **(-)** or **(+)** button will allow you to toggle the text block through the 8 level of gray from white to black and two levels with backgrounds. When you get to the desired gray scale level, press and release the **PAUSE/STILL** button, this will return you to the **Display Setting** sub-menu.

Alarm Counter

To access, first access the main menu; then, select **Screen Setting**, then, **Alarm Counter**. Use the **(-)** or **+)** button to select this feature, and the **PAUSE/STILL** 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 **PAUSE/STILL** to hide your choice, press (-) to select **EXIT**, then press **PAUSE/STILL** again to return to the main programming menu.

VCR Status

The VCR status allows the user to enable or disable the temporary on-screen display of the current operating mode of the VCR. For example when an alarm triggers the VCR into the recording mode, an on-screen display "**REC**" is displayed. When the VCR is commanded to go into fast forward, rewind or stop, the messages "**FFW**", "**REW**", "**STP**" respectively are displayed continuously while in this mode. The Play mode message is not able to be displayed while in the play mode. The **VCR Status** can be toggled On/Off by pressing and release **PAUSE/STILL** button.

MASTER RESET

Resetting The Unit

CAUTION: Master reset will clear all settings and exit programming mode.

In the event that there is a need to completely clear the RT-195 programming back to the factory defaults, the Master Reset feature allows you the ability to clear all settings for reprogramming. Remember though, this will erase all previously programmed data.

To perform a Master Reset, in the main menu, place the arrow in front of: **MASTER RESET** and press and release the **PAUSE/STILL** button. The following sub-menu will appear:

Master Reset

Back to Main Menu

Do Master Reset

To Master Reset the RT-195, place the cursor in front of **"Do Master Reset"** and press and release the PAUSE/STILL button. You will be presented with a copyright notice which lists the software version for the RT-195. This will go off-screen after a few seconds and the Time/Date display will appear reset back to:

12:00:00 1-01-98

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AVE's LIMITED EQUIPMENT WARRANTY for The RT-195 NTSC or PAL Models

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.

RT-195: 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.

I**MPORTANT:** 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.

NOTES :

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Please visit us on our website to view our extenisve product line @:
http://www.americanvideoequipment.com
Once again, thank you for choosing AVE for your CCTV needs...

AVE HOME	SALES	TECH SUPPORT	PRODUCT CATALOG	CUSTOMER SERVICE