



ATLONA
Connecting technology to your world

User Manual

VGA (PC) TO COMPONENT / COMPOSITE / S-VIDEO CONVERTER AT-PC-AVSCOMP



TABLE OF CONTENTS

1. Introduction	2
2. Features	2
3. Operation Controls and Functions	3
3.1 Front Panel.	3
3.2 Rear Panel	4
3.3 Remote Control	5
4. RS-232 Software Operation	6
6. Connection and Installation	9
7. Specifications	10
8. RS-232 Remote Control Protocol	11
8. Safety Information	14
9. Warranty	15
10. Atlona Product Registration	16

INTRODUCTION

The AT-PC-AVSCOMP PC to Video scan converter is designed to convert a variety of computer images, from 640x480 up to 1600x1200, to interlaced NTSC or PAL video. It offers a variety of output formats including composite, S-Video, YUV and RGBS. It is ideal for use in applications like video conference, home theater, business presentation, lecturing room or viewing PC image on TV.

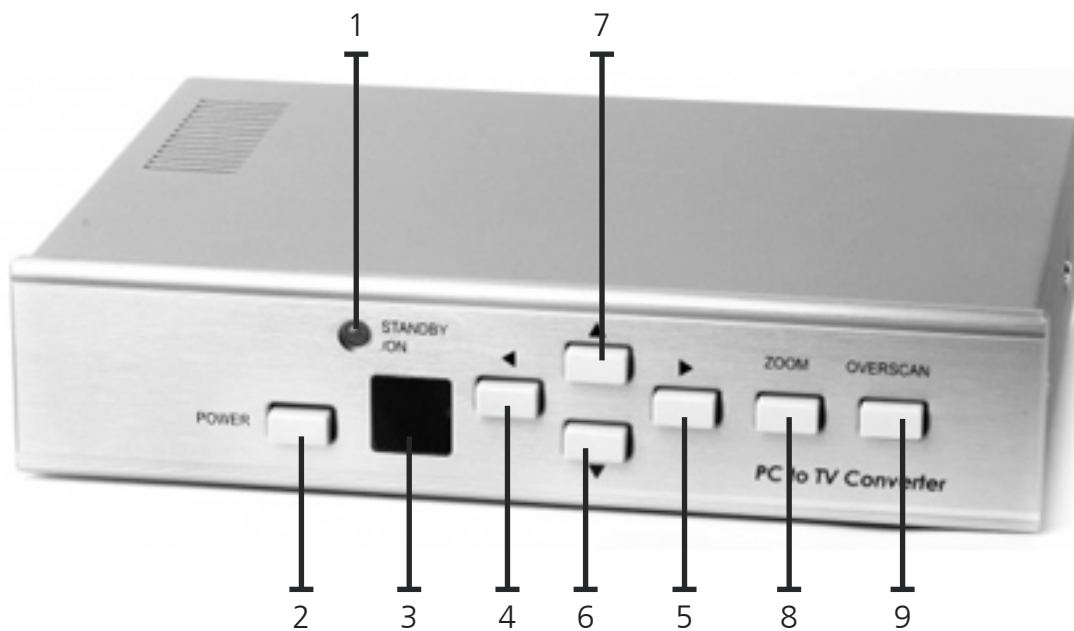
FEATURES

- Automatically detects and down converts the incoming PC images to NTSC, PAL, RGB or YUV.
- Support high resolution PC input up to UXGA(1600x1200@60Hz).
- Output video format is selectable between composite/S-Video, YUV, and RGBS through a control button on the remote.
- Support high input refresh rate up to 140Hz(VGA).
- Adjustable image scaling.
- Pan, Position and Zoom.
- Advance 2-D flicker filter ensures flicker-free picture.
- Adjustable contrast, brightness, color, sharpness.
- Last memory.
- Adjustment and control through RS-232 interface.
- Useful functions, overscan, freeze, test pattern, magnifier.
- Remote control.
- OSD operation display.
- Wide/Standard screen.



OPERATION CONTROLS AND FUNCTION

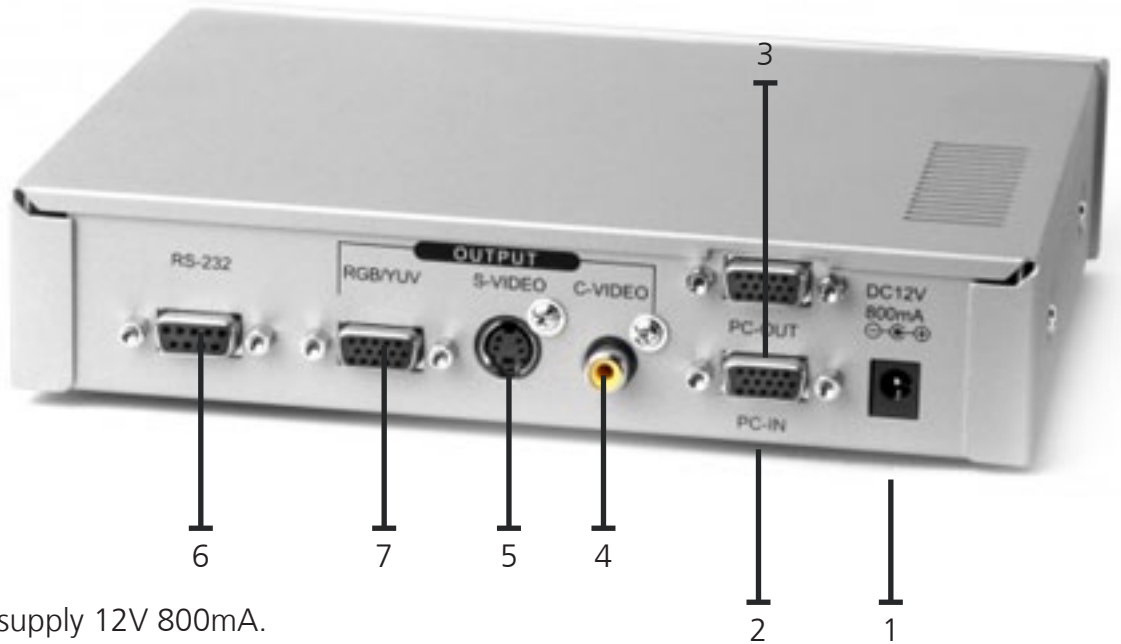
Front Panel



1. Standby/On indicator: The indicator illuminates in red when it is in Standby mode, illuminates in green when it is in ON mode.
2. Power button: Push the button to turn power ON or Standby.
3. Remote control sensor.
4. Button ◀: Under zoom mode push the button to adjust the picture leftward.
5. Button ▶: Under zoom mode push the button to adjust the picture rightward.
6. Button ▼: Under zoom mode push the button to adjust the picture downward.
7. Button ▲: Under zoom mode push the button to adjust the picture upward.
8. Zoom button: Push the button to zoom in or zoom out of a picture.
9. Overscan button: Push the button to overscan/underscan the picture.



Rear Panel

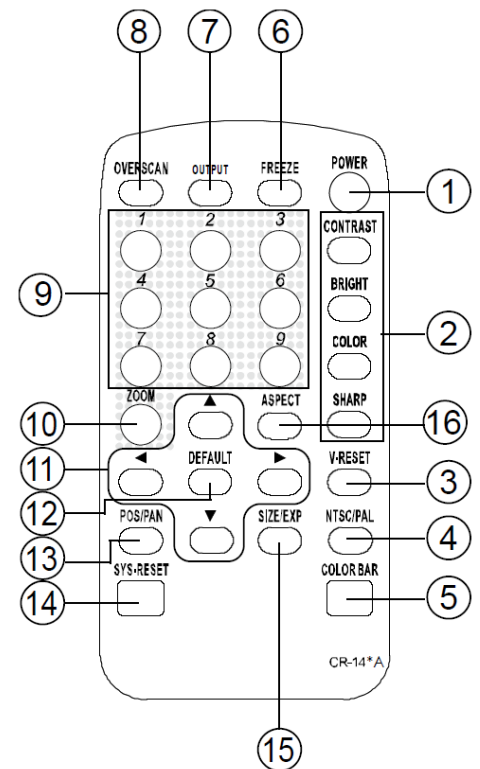


1. DC power supply 12V 800mA.
2. PC input VGA connector.
3. PC loop-through output connector.
4. Composite video out RCA connector.
5. S-video out connector.
6. RS-232 DB-9 connector.
7. RGB or YUV out connector.



Remote Control

1. Power: Power ON/Off.
2. Video setting adjustments for picture, contrast, bright, color and sharpness.
3. V-Reset: Press the button to reset picture adjustment 2 to factory default value.
4. NTSC/PAL: Press the button to select NTSC or PAL as video output.
5. Color bar pattern ON/Off: Press the button to show color bar pattern on the screen. Press again to close color bar.
6. Image freeze ON/Off: Press the button to freeze/unfreeze an image.
7. Output format: Press the button to select your desired output format.
Press repeatedly to toggle through CV/SV RGB YUV
8. Under/Over Scan: Press the button to choose a underscan image or overscan image.
9. 9-blocks selection(Zoom): Under zoom mode press one of the buttons to select its corresponding sub-area which is 1/9 of of the full screen.
10. Zoom ON/Off: Press the button to zoom in an picture, press again to zoom out.
11. Horizontal/Vertical adjust knob:
 - Adjust the size or position of a image when it is under Zoom, Pan/Position, or Size/EXP mode.
 - Adjust setting value of picture adjustment in 2 .
12. Default: Press the button to revert the following parameters to factory preset value:
 - Zoom
 - Position
 - Size
 - Picture adjust
13. Pos/Pan: When a picture is in underscan mode, press the button to do position adjustment. When a picture is in overscan mode, press the button to do pan adjustment.
14. System reset: Press the button to revert all system parameters back to factory preset value.
The system parameters are default as follows:
 - Overscan
 - NTSC output
 - 4:3 aspect
 - Normal brightness
 - Video settings reset, position/ pan/size /expand reset.
15. Size/EXP: When a picture is in underscan mode, press the button to do size adjustment. When a picture is in overscan mode, press the button to do expand adjustment.
16. Aspect: Press the button to switch between standard 4:3 and widescreen 16:9 aspect ratio.



RS-232 SOFTWARE OPERATION

PC OS: Windows 98/ME/2000/XP

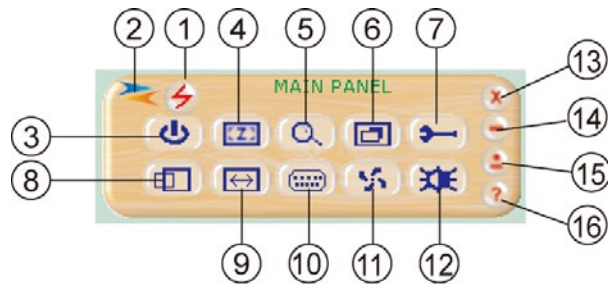
Software installation:

1. Place installation CD on CD-ROM drive.
2. Execute setup.exe on installation CD.
3. OS maybe requires to update some files.Please re-start PC. After starting PC ready, execute setup. exe again.
4. Click taskbar menu (START)->(Programs)->(AT-PC-AVSCOMP) to execute software.

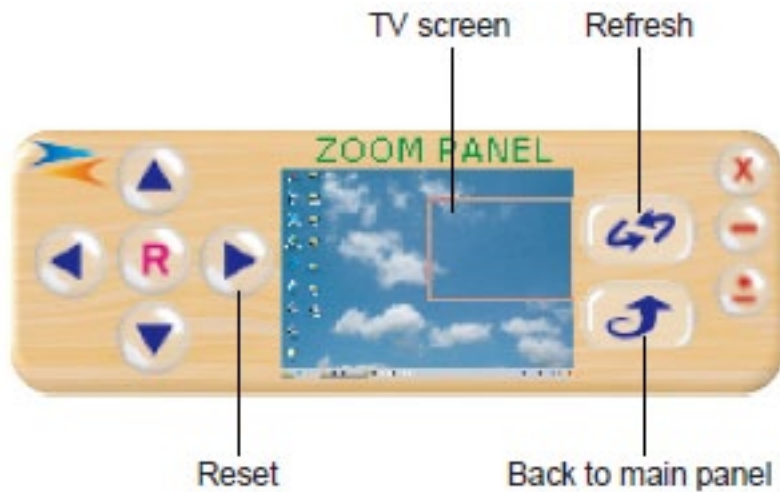
If RS-232 is not ready then software enters virtual mode.

After RS-232 connection being ready, start the software again and enters real mode.

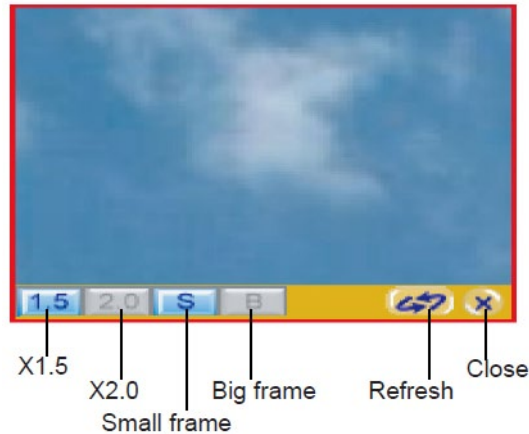
Main Panel



1. Power: Power ON/Off.
2. Mode indicator:
Grey icon:Virtual mode operation.
Colored icon: Real mode operation.
3. System reset: Reset AT-PC-AVSCOMP unit.
4. Zoom: Drag and move (TV-screen) to the place where you want to see. If the PC screen image is changed, then click(refresh).



5. Magnifier: Drag and move magnifier to the place where you want to see. If the screen image is changed, then click (refresh).



6. Over/Under scan:

TV overscan adjustments are "pan" and "expand"; underscan adjustments are "position" and "size".

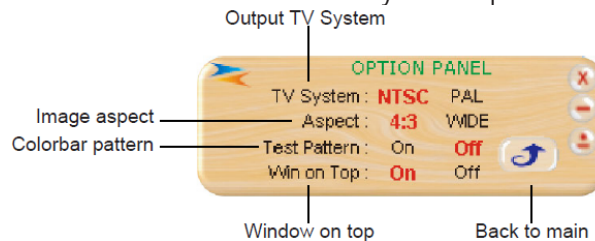
7. Option:

TV system: NTSC or PAL output.

Aspect pattern: 4:3 or widescreen.

Test pattern: colorbar test pattern ON/OFF.

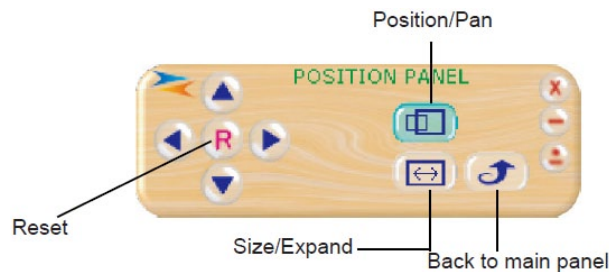
Window ON Top: Application software window always on top ON/OFF.



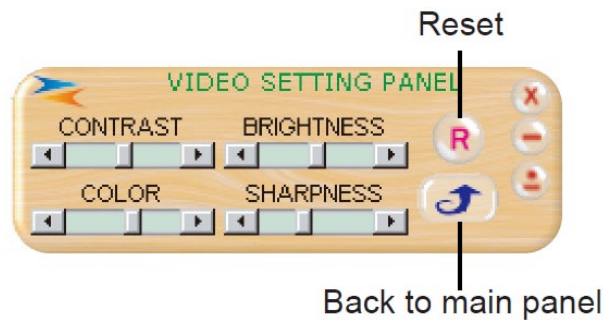
8/9. Position/Pan and Size/Expand adjustments

Position/Size for underscan

Pan/Expand for overscan



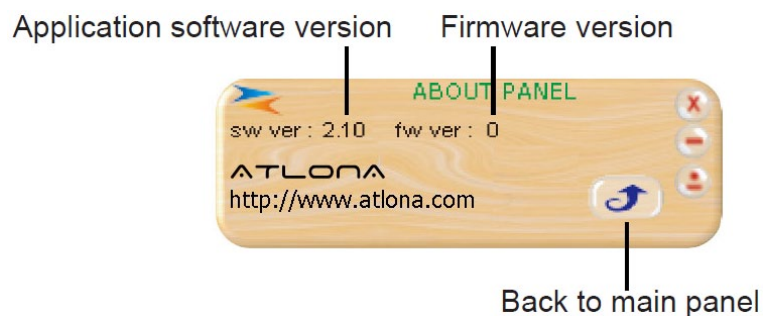
- 10. **Output Format:** Select output format-Press repeatedly to circle through CV/SV → RGB → YUV
- 11. **Screen freeze:** Still screen.
- 12. **Video settings:** Contrast, Brightness, Color, Sharpness adjustment.



- 13. **Close:** Terminate application software.
- 14. **Minimize:** Shrink application software to window taskbar.
- 15. **System tray:** Shrink application software to system tray click the icon and return to normal window.



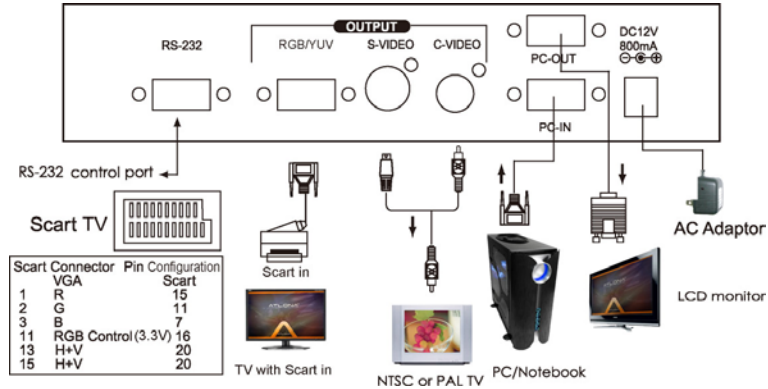
- 16. **About:** Display application software version and firmware version.



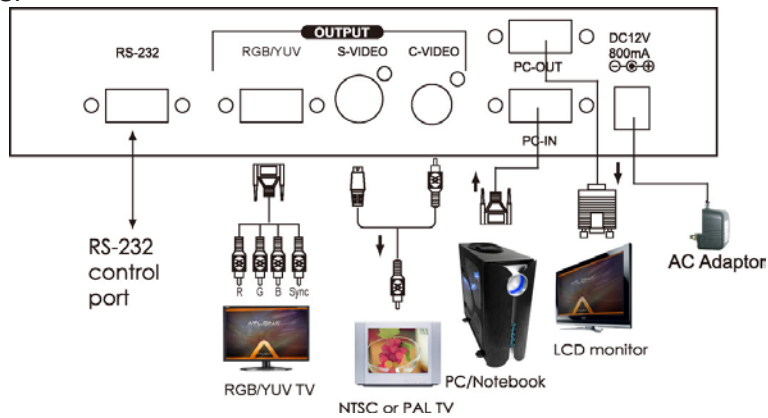


CONNECTION AND INSTALLATION

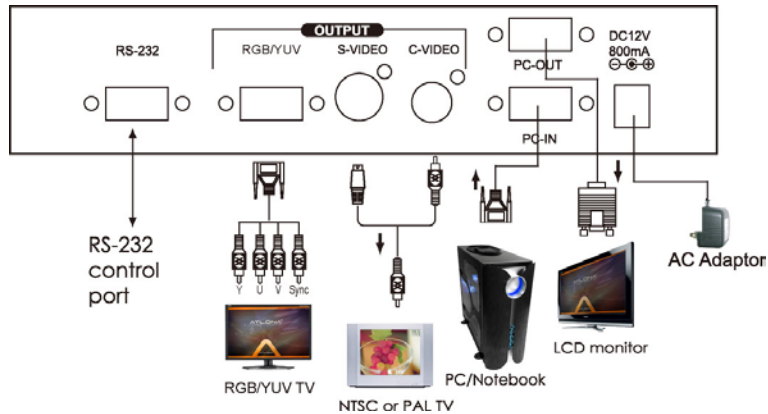
A. Connecting the RGB output to the scart input of the TV using enclosed VGA to SCART cable.
Select RGB as output mode:



B. Connecting the RGB out to the TV through enclosed VGA to 4 BNC cable.
Select RGB as output mode:



C. Connecting the YUV out to the TV through enclosed VGA to 4 BNC cable.
Select YUV as output mode:





SPECIFICATIONS

Input terminal: HD-15 R/G/B/H/V

Input resolution:

Common resolution lists:

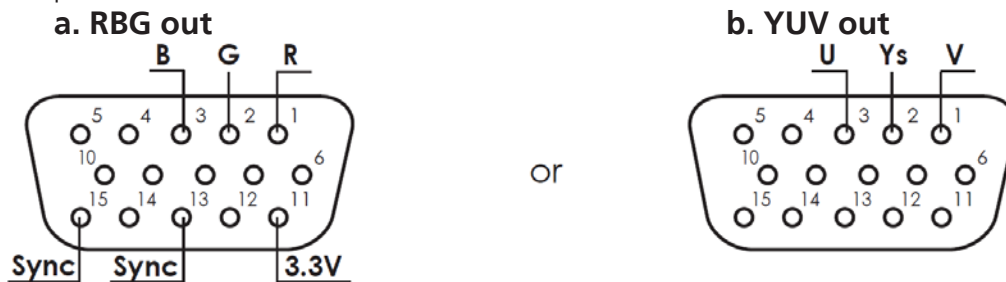
- VGA@60Hz up to 140Hz refresh rate
- SVGA@60Hz up to 120Hz refresh rate
- XGA@60Hz up to 85Hz refresh rate
- SXGA@60Hz refresh rate
- UXGA@60Hz refresh rate

Output terminal:

- Composite video RCA,
- S-Video mini-din,
- PC-Out (pass through) HD-15,
- PC- In HD-15,
- RGB/YUV-Out HD-15

Output system:

- NTSC or PAL TV system
- R/G/B/H/V (PC pass through)
- R/G/B/Sync Fh=15 KHz, Fv=50/60Hz
- Ys/U/V Fh= 15KHz, Fv=50/60Hz
- RGB/YUV HD-15 pins definition:



The Sync pin is composite sync(H+V)

Controls: Front panel control, IR remote control, RS-232 control.

Last memory.

Accessories:

- HD-15(male) to HD-15(male) VGA cable x 1
- 1R to 1R video cable x 1
- IR remote control x 1
- Application software CD x 1


Power: DC 12V 800mA center:positive

Dimensions: 204(W) x 155(D) x 50(H)mm

Weight: 1kg

RS-232 REMOTE CONTROL PROTOCOL

The connection between PC-AVCOMP and remote controller with RS-232 modem cable.
Pins definition of modem cable

AT-PC-AVSCOMP			Remote Controller	
PIN	Definition		PIN	Definition
1	NC		1	NC
2	TxD		2	RxD
3	RxD		3	TxD
4	NC		4	NC
5	GND		5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

RS-232 transmission format:

Baud Rate: 9600 bps
Data Bit: 8 bits
Parity: None
Stop Bit: 1 bit

Command / Response codes of RS-232 transmission:

" The command / response codes are the combination of 3 bytes. the 1st, 2nd byte are text and the 3rd byte is value."

Remote Controller Command Codes to AT-PC-AVSCOMP

Code	Comment
'PW'+0 'PW'+1	POWER power off power on
'NP'+0 'NP'+1	N/P NTSC output PAL output
'FZ'+0 'FZ'+1	FREEZE freeze image off freeze image on
'OV'+0 'OV'+1	OVERSCAN underscan overscan
'ZM'+0 'ZM'+1	ZOOM zoom off zoom on
'MU'+0 'MU'+1	move UP move UP button release move UP button press



Code	Comment	
'MD'+0 'MD'+1	move DOWN	move DOWN button release move DOWN button press
'ML'+0 'ML'+1	move LEFT	move LEFT button release move LEFT button press
'ML'+0 'ML'+1	move RIGHT	move RIGHT button release move RIGHT button press
'SU'+0 'SU'+1	size UP	shorter height image button release shorter height button press
'SD'+0 'SD'+1	size DOWN	higher height image button release higher height image button press
'SL'+0 'SL'+1	size LEFT	narrower width image button release narrower width image button press
'SR'+0 'SR'+1	size RIGHT	wider width image button release wider width image button press
'RS'+0 'RS'+1 'RS'+2 'RS'+3	RESET	system reset reset image location reset image size reset video settings
'TP'+0 'TP'+1	PATTERN	test pattern off test pattern on
'OF'+0 'OF'+1 'OF'+2	Output Format	CV/SV output RGB output YUV output
'AR'+value	zoom AREA	'AR'+1 ~ 'AR'+9 zoom area1 ~ area9
'AS'+0 'AS'+1	ASPECT	aspect is 4:3 aspect is wide screen
'CO'+value 'BR'+value 'SA'+value 'FF'+value	CONTRAST BRIGHTNESS SATURATION FLICKER	value = 0 ~ 63 value = 0 ~ 255 value = 0 ~ 63 value = 0 ~ 21
'VR'+1	VERSION	require AT-PC-AVSCOMP unit firmware version
'AL'+1	ALL	retrive AT-PC-AVSCOMP all status retrive 'PW'+0 only when unit power off 'PW'+1 'NP'+? 'OV'+? 'AS'+? 'ZM'+? 'CO'+? 'BR'+? 'SA'+? 'SH'+? 'FF'+?

Converter transmits codes to Remote Controller when AT-PC-AVSCOMP operating.

Code	Comment	
'PW'+0 'PW'+1	POWER	power off power on
'NP'+0 'NP'+1	N/P	NTSC output PAL output
'FZ'+0 'FZ'+1	FREEZE	freeze image off freeze image on
'OV'+0 'OV'+1	OVERSCAN	underscan overscan
'ZM'+0 'ZM'+1	ZOOM	zoom off zoom on
'RS'+0 'RS'+1 'RS'+2 'RS'+3	RESET	system reset reset image location reset image size reset video settings
'TP'+0 'TP'+1	PATTERN	test pattern off test pattern on
'OF'+0 'OF'+1 'OF'+2	Output Format	CV/SV output RGB output YUV output
'AR'+value	zoom AREA	'AR'+1 ~ 'AR'+9 zoom area1 ~ area9
'AS'+0 'AS'+1	ASPECT	aspect is 4:3 aspect is wide screen
'VR'+value	VERSION	firmware version

SAFETY INFORMATION

Safeguards



To reduce the risk of electric shock, do not expose this product to rain or moisture



Do not modify the wall plug. Doing so will void the warranty and safety features.



If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.



This equipment should be installed near the socket outlet and the device should be easily accessible in the case it requires disconnection.

Precautions

FCC regulations state that any unauthorized changes or modifications to this equipment, not expressly approved by the manufacturer, could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product, or cause fires.

In the event of an electrostatic discharge this device may automatically turn off. If this occurs, unplug the device and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements, fish tanks, and swimming pools.

Use only accessories recommended by Atlona to avoid fire, shock, or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning and not cleaning fluid or aerosols. Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, remove unit panels, or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-PC-AVSCOMP. Opening the product will void the warranty.

Do not attempt to service the unit. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.

WARRANTY

Limited Warranty

Atlona Technologies warrants that (a) its products (the AT-PC-AVSCOMP) will perform substantially in accordance with the accompanying written materials for a period of 3 years from the date of receipt and (b) that the product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to customers that fall within those areas.

Customer Remedies

Atlona Technologies' and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' decision, either return of the price paid for the product, repair, or replacement of the product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of the Customer's receipt. This Limited Warranty is void if failure of the product has resulted from accident, abuse, misapplication, or natural occurrence. In example but not limited to: power surges (electrical storms, local power outage), dropping the product (or items on the product), contact with fluids, and physical misconduct (i.e. kicking or punching). Any replacement product will be warranted for the remainder of the original warranty period.

No other warranties

To the maximum extent permitted by applicable law, Atlona Technologies and its suppliers disclaim all other warranties, either expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This Limited Warranty gives customer specific legal rights. Customers may have other rights depending on the jurisdiction.

No liability for damages

To the maximum extent permitted by applicable law, in no event shall Atlona Technologies or its suppliers be liable for any damages arising out of the use of or inability to use this product, even if Atlona Technologies has been advised of the possibility of such damages. Such damages include but are not limited to: special, incidental, consequential, or indirect damages for personal injury, loss of business profits, business interruption, loss of business information, or any other pecuniary loss. Atlona Technologies' and its suppliers' entire liability under any provision of this agreement shall be limited to the amount actually paid by you for the product. Some Jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damage. The above limitations may not apply to you in such jurisdictional cases.

ATLONA PRODUCT REGISTRATION

Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona, we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

To register go to: <http://www.atlona.com/registration>