

# i-glasses *SVGA* User Manual

## The highest performance Personal Display System™

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Congratulations on your purchase of an i-glasses SVGA Head Mounted Display. The i-glasses SVGA functions like a high resolution Plug and Play portable monitor. The optional stereo version supports frame sequential stereo supplied by nVidia game drivers or other applications.

For best results, please read these instructions before installing your i-glasses SVGA.

### Specifications:

Resolution: 1.44 million pixels (800 x 600 RGB color sequential system)  
Input: VGA (640x480) or SVGA (800x600) at 56-100Hz  
Display Refresh rate: Double the input refresh rate up to 60Hz. Above 60Hz the display refresh rate equals the input refresh rate.  
Field of View: 26.5 degrees diagonal  
Brightness: 13 fL  
Contrast: 25:1  
Eye Relief: 25 mm  
IPD Adjustment: None Required  
Exit Pupil: 3mm V x 10mm H  
Color Depth: 18 bit  
Focus Distance: 13 feet at the center  
100% Overlap  
Convergence: 7.5 feet  
Operating Temperature: 0 to 90 degrees F  
Power Consumption: 4W  
Input Voltage: 7-18VDC

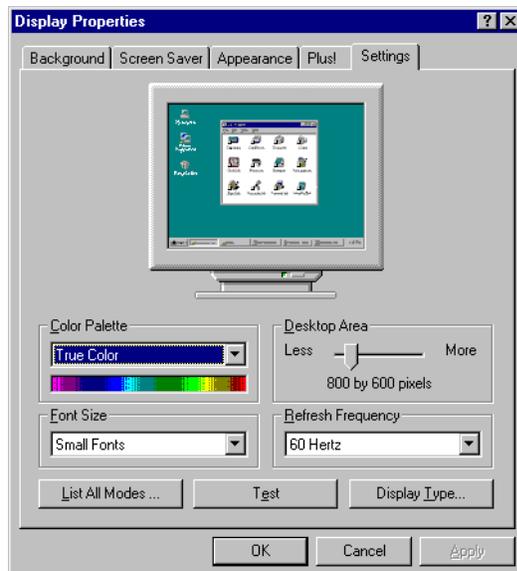
### Components included with i-glasses SVGA Unit

1 each	i-glasses SVGA Personal Display Unit
1 each	Power Cube, Output: 9VDC at 800 mA
1 each	Combination of VGA/Audio/Power cable
1 each	User's Manual

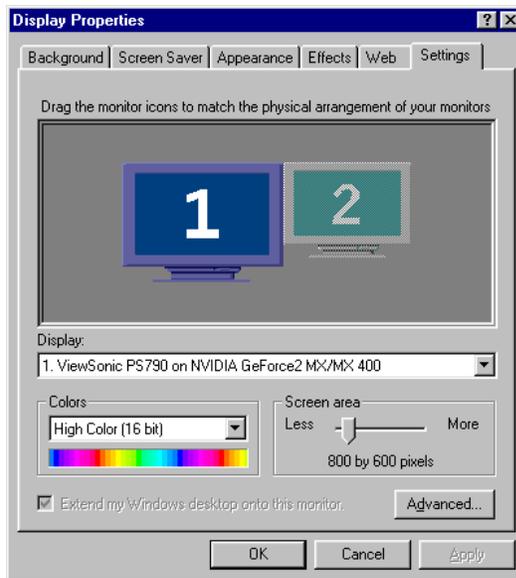
## Set up your computer:

The SVGA Personal Display system works best when the video source is a VGA (640 x 480) or SVGA (800 x 600) format at 60Hz. To set your PC to these settings, see below:

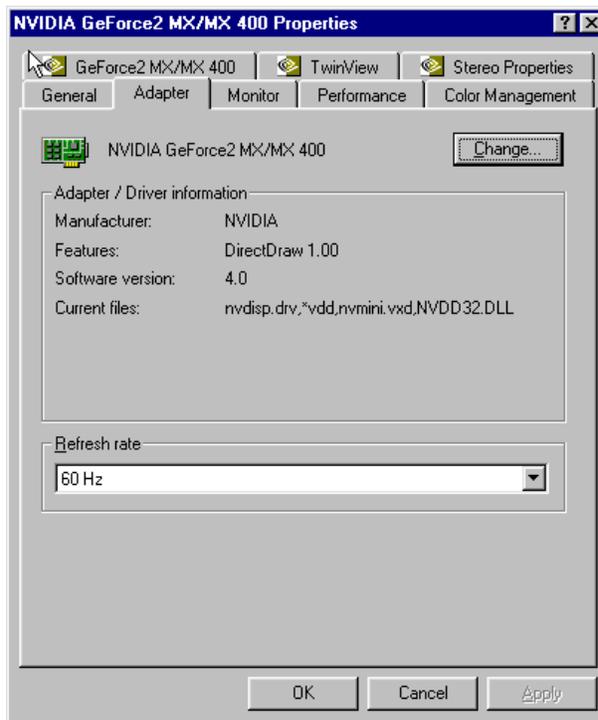
1. SET MONITOR TO 800X600 PIXELS – In Windows, click on the “**Start**” button, on the Windows taskbar, select “**Settings**,” then “**Control Panel**,” then “**Display**.” The “**Display Properties**” pop-up screen will appear. Click on the “**Settings**” tab at the top right. Make sure your monitor screen area (lower right) is set to “**800X600 pixels**.” If you have changed the resolution, click the “**Apply**” button to accept the change.
2. SET COLOR RESOLUTION – You may want to adjust the number of colors shown in the color box to improve the quality of their appearance. Color should be set to a minimum of 16-bit resolution (High Color).
3. SET THE REFRESH RATE – Set the refresh rate to 60 Hz. In Windows NT and Win2000, this is done from the same screen as the resolution setting. For Windows 95/98/ME, go to the “**Settings**” tab as outlined above and press the “**Advanced**” button, then click on the “**Adapter**” tab when it appears. Set the refresh rate to 60Hz. If you have changed the refresh rate, click the “**Apply**” button to accept the change.
4. CLOSE THE DISPLAY PROPERTIES WINDOW – After accepting the changes to resolution and refresh rate, close the display properties window.
5. DISCONNECT MONITOR IF YOU HAVE ONLY ONE VGA PORT.



Screen Shot from Windows NT-Resolution is contained in “Desktop Area” and should be set to 800 x 600. Refresh Frequency should be set to 60Hz.



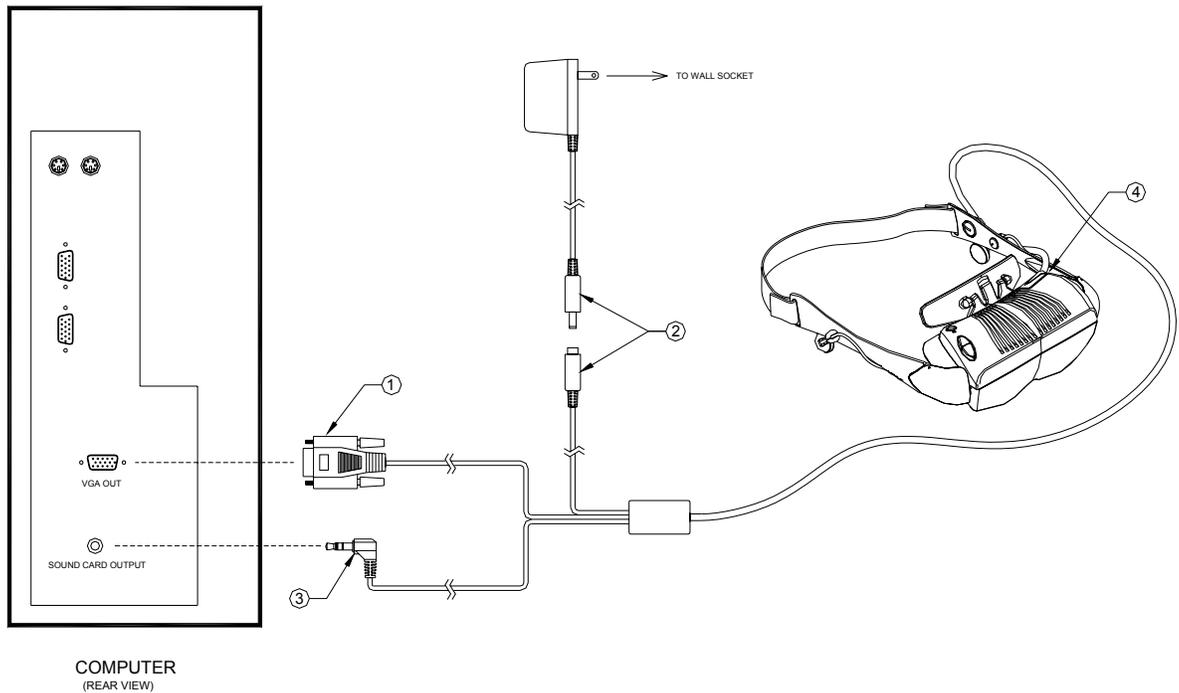
Screen shot from Win 95/98/ME. Set Screen Area to 800 by 600 and apply. Click “Advanced” button to set Refresh Rate.



Screen shot from Win 98/98/ME. Set Refresh Rate to 60 Hz.

## Connect your HMD to any Desktop, Laptop, or other VGA source

1. CONNECT VGA SOURCE – Connect the video source plug into your VGA output port.
2. CONNECT POWER SUPPLY – Connect the power supply plug into the power source jack. Plug power cube into an AC socket.
3. CONNECT AUDIO – Connect the audio plug into your audio source jack. This may be the audio output jack from your computer. This is required only if you wish to hear sound. Otherwise you may leave it disconnected.
4. CONNECT CABLE TO HMD – Firmly seat cable connector into headset header, located above the left eye display.



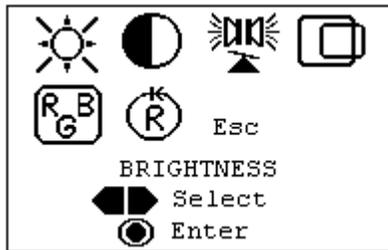
## Using the SVGA Personal Display

1. TURN ON YOUR PERSONAL DISPLAY – Press the power button. This will illuminate the LED next to the button and within a few seconds the display will show your video. Your SVGA Personal Display unit has been preset at the factory and no further adjustments should be necessary.
2. ADJUSTING AUDIO – If you have an audio source, you can increase or decrease the volume level using the Up/Down buttons.
3. ADJUSTING VIDEO OR AUDIO BALANCE – If you need to make video or audio balance changes to your unit, please see “Using the OSD” below.

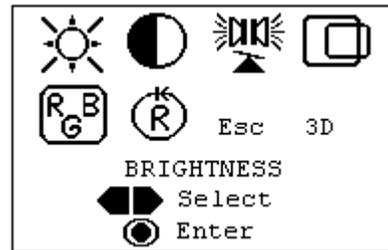
# Using the OSD (On-Screen-Display)

The OSD allows the user to make some changes to the way the SVGA Personal Display works and performs. Changes that can be made through the OSD include: Brightness, Contrast, Audio Balance, Horizontal Centering, Color Settings, set the system to 3D (If your unit includes the 3D option), and Resetting the unit to Original Factory Settings.

1. SELECT THE OSD FUNCTION – Press and hold the power button for about 3 seconds or until a small window appears in the middle of your screen, as shown below. Release the button after the screen appears.

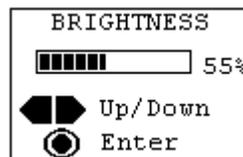


2D On Screen Display



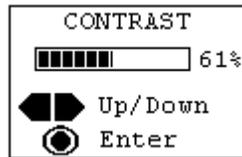
3D On Screen Display

2. SCROLLING BETWEEN SETTINGS – Notice that the Brightness Icon is highlighted and the word Brightness appears just under the icons. Pressing the up/down button allows you to scroll through all the Main Menu choices.
3. SELECTING A SETTING TO CHANGE – Once you have chosen the function you would like to change, momentarily press the power button to open the submenu window.
4. CHANGING BRIGHTNESS – Brightness allows you to make adjustments to the display brightness. When the Brightness submenu is displayed you may change the setting by pressing the up/down buttons from 0 to 100%. Once you find a value setting that you like, you may press the power button to immediately return to your main screen or wait about 2 seconds and the program will return to your main screen automatically. Regardless, your new setting takes places immediately after you make the adjustment.



5. CHANGING CONTRAST – Contrast allows you to make adjustments to the display contrast. When the Contrast submenu is displayed you may change the setting by pressing the up/down buttons from 0 to 100%. Once you find a value setting that you

like, you may press the power button to immediately return to your main screen or wait about 2 seconds and the program will return to your main screen automatically. Regardless, your new setting takes places immediately after you make the adjustment.



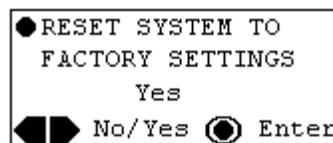
6. CHANGING AUDIO BALANCE – Audio Balance allows you to balance the sound between the left and the right earphones. When the Audio Balance submenu appears you may change the balance by pressing the left/right (up/down) buttons until you find the right balance. This adjustment is easier when you have the audio volume set to an appropriate level.



7. CENTERING SCREEN – If the screen is off center, you can center the image using this function. The HMD will remember up to five custom settings.



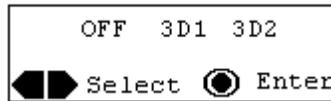
8. SETTING RGB COLOR BALANCE – You can set each of the primary colors-Red, Green, and Blue- for each eye using the RGB color balance control.
9. SELECTING THE FACTORY RESET OPTION – The Factory Reset returns all off the settings to the original settings when the unit was manufactured.



10. SETTING THE 3D OPTION – This allows you to set your SVGA Personal Display to accept and display 3Dimensional images. This option will only work on those units

with the 3D option installed. When the 3D submenu appears, select 3D1, 3D2, or turn the 3D off.

**NOTE THAT FOR 3D, YOU WILL WANT TO INCREASE YOUR REFRESH RATE TO 85 or 100Hz. Do this prior to activating the 3D.**



## Using the 3D Function

The i-glasses SVGA 3D supports two 3D modes. In both modes, full resolution frame sequential images are required.

Mode 1: DDC line protocol-The DDC line protocol is used principally by the nVidia stereo drivers. If nVidia stereo drivers are active and outputting a 3D signal, the unit will automatically detect the DDC line and stay locked to this signal. Note that this is the highest priority 3D function. If this signal is present, the unit will automatically make the corrections to maintain a stereo image. Thus, it does not matter whether you select 3D1 or 3D2 for this application.

Mode 2: Frame sequential stereo-the user can select 3D1 or 3D2 to activate the frame swapping function. If the images are reverse stereo, switch between 3D1 and 3D2.

The i-glasses SVGA will also support line interlace 3D if the line blanking is done by IOD's Cruiser or MMGamer dongles or other similar hardware. Contact IOD to get more detail on how to do this.

Note that if the HMD is 3D mode, the user cannot change the refresh rate or resolution of the HMD-this function is temporarily disabled. If you wish to change these settings, exit the 3D mode, then change the settings.

### Troubleshooting and FAQs:

Q: I don't get an image on the screen. What can I do?

A: Confirm that the resolution and refresh rate on your computer are set to 800 x 600 @ 60Hz. If you are connecting to a laptop, make sure that the VGA out port is enabled. Usually this is done with "**FN-F5 or SHIFT-FN-F5**" simultaneously. If you boot the laptop with the HMD attached to the VGA out port, then the laptop should detect the presence of the HMD.

If you still do not have an image, contact IOD.

Q: The image rolls, is jumpy, or has static on the screen. What can I do?

A: This is probably caused by an incorrect input setting. Also, ensure that you computer's resolution and refresh rate are set to 800 x 600 @ 60Hz. If the problem persists, change the refresh rate up or down.

Q: The text in the image is illegible.

A: Set the resolution to 800 x 600 @60Hz. Text should be legible at this resolution setting.

Q: The image flickers.

A: If the unit is a stereo unit, make sure that the stereo is off. If the image is still flickering, make sure that the incoming refresh rate is 60Hz. At this frequency, the display refresh rate is doubled to 120 Hz, which should be flicker free.

Q: The image darkens after using the HMD for a period of time.

A: The LCDs are overheating because the unit is operating in an environment outside its operating temperature range. Make sure that the unit is used within it specifications, and that it is kept out of direct sunlight when running. The LCDs will not be damaged if they overheat during operation.

Q: I am trying to play 3D on my laptop and it is not working.

A: Turn off the LCD flat panel.

If the image still is not correct, contact IOD at the above number.

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Limited Warranty and Product Use Warning

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- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is needed
- Consult the dealer or an experienced radio/TV/PC technician for help

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