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## 3D WINDOW® Universal 3D Glasses



### MODEL E

Model E SuperClear 3D Window® Universal Glasses are the most elegant, sophisticated and flexible 3DTV glasses ever made. They are compatible with StereoGraphics® and RealD CrystalEyes®, Nvidia® 3D Vision® system, 3DTV sets from Sony®, Samsung®, the Mitsubishi® 3DC 1000 3D Starter kit, the Mitsubishi® 3DA-1 Adapter, the XpanD® and Volfoni® home and Cinema Glasses/Emitters,, X3D®, ED®, I/O® , pc gaming glasses/emitters, and with all modes of the 3DTV Corp® Universal Home, Pro, Midrange and Cinema Emitters. The unique polarity reversal switch enables compatibility with many other kinds of glasses and displays. At 43g they are by about half the weight of any other LCD shutter glasses—an extremely important feature for extended use. The Fit-All self-fitting frames automatically adapt to nearly any size head including children and over glasses and hold securely. Nosepads/Temple pads are included. Liberal use of these pads will almost always remove any discomfort. They are the loop part of the Velcro found everywhere.

#### ► Compatible with:

- nVidia® (3D Vision Kit)
- Samsung®/Mitsubishi® (3DTV glasses)
- 3DTVCorp® Model X, I/O®, X3D® (home glasses)
- RealD®/StereoGraphics® (CrystalEyes® 3, CrystalEyes® 4)
- Sony® (3DTV glasses)
- XPAND® (all glasses)
- All 3DTVCorp® Emitter Modes

#### Changing the Battery

With a small flatblade screwdriver pry up the battery tray in the center of the frame between the lenses, replace the CR2032 battery and push back in place. The glasses remain in resting mode until they detect a signal. The resting period may be up to about 3 months after which the battery needs to be replaced. There is an optional external testing device which can remotely detect the approximate battery life remaining. **TURN OFF EMITTER OR TV WHEN NOT IN USE OR PUT GLASSES IN A BOX OR THEY WILL CONTINUE TO OPERATE!!**

- Long battery life ..... 200-300 hours.
- Light weight (with battery) ..... 43 g.
- Stereo reverse switch (Press on center of left front of frame above left lens)
- Automatic on when signal detected and autpower off after 15 min.

#### Specifications

- Optical axis contrast of LC shutters

- static contrast* .....  **1000:1**
- dynamic contrast* .....  **100:1**
- ▶ **Range of switching frequencies (frame rates of stereo image)**
  - maximum value* ..... **160 Hz**
  - minimum value* ..... **50 Hz**
- ▶ **Dynamic optical transmission (for open state of each LC shutter)**
  - for unpolarized input light*.....  **30 %**
  - for linear polarized input light* .....  **60 %**
- ▶ **Angle of Emitter signal ( including both eyes)**
  - at high power of IR Emitter*.....  **360<sup>0</sup> ( reflections from walls )**
  - at low power of IR Emitter*.....  **160<sup>0</sup>-170<sup>0</sup> (without reflections)**

### Troubleshooting and FAQs

*I don't see any 3D effect.* Be sure the programming you are watching is 3D and the emitter is turned on. If the programming is 3D, you should see two overlapped identical images without the glasses and one image through each eye when you close the other eye. Make sure the glasses have a fresh battery. Any shutter glasses may not work if you are sitting too close to the screen. Lights, heaters, fans, IR wireless Headphones, Remote control amplifiers such as the IR Blaster, remote devices for Video Game units etc. may interfere with the glasses. *I sometimes notice a slight flicker.* There may be some slight flicker when watching with bright lights on, especially fluorescents. Eliminate this by turning them down or off. *The 3D images do not look correct.* You may need to reverse the right/left polarity of the images with the TV or projector remote control, or a hotkey in the video game or PC software player—often F7 as with the Nvidia 3D vision system.

WITH ALL KINDS OF DISPLAYS AND ALL KINDS OF GLASSES/EMITTERS FROM ANYONE, AND ESPECIALLY WITH PC SYSTEMS (E.G., NVIDIA 3D VISION OR 3D PLAY) YOU MAY GET PULSING, FLICKERING OR ERRATIC BEHAVIOR DUE TO INTERFERENCE BY LIGHTS, ESPECIALLY FLUORESCENTS, FANS, HEATERS AND IN ADDITION TO MINIMIZING THESE, YOU SHOULD ALSO TRY CHANGING THE FREQUENCY OF THE MONITOR AND TIMING FUNCTIONS, GAMMA, CONTRAST ETC OF THE VIDEO CARD. IF YOU LIVE IN A COUNTRY WITH 50HZ ELECTRICITY, TRY CHANGING REFRESH TO 100HZ. **WITH ANY SYSTEM TRY OTHER FREQUENCIES IN**

**THE RANGE OF 95 TO 130 IF YOU EXPERIENCE IMAGE QUALITY ISSUES.** Of course with any IR synced glasses it's also feasible to tape or glue a small piece of IR selective filter (e.g., reddish paper or plastic) over the glasses receiver to deal with fluorescent lights etc. **GLASSES MUST BE FREE OF FINGERPRINTS!! ONE PRINT IN THE VIEWING AREA CAN RUIN THE 3D AND PRODUCE HEADACHES!! Do NOT put pressure on the lenses when cleaning!!!** ⚠ **Notice! Noticia! Achtung! Attencao!** The 3D glasses are not

prescription eyewear, sunglasses, nor a protective goggle. Do not use them for other purposes (e.g., driving, reading, protection from sunlight or ultraviolet light, etc.) as such use may result in injury. > Do NOT EXPOSE THEM TO DIRECT SUNLIGHT, HEAT, FIRE OR WATER. > WHEN CLEANING, DO NOT SPRAY CLEANER DIRECTLY ONTO THE SURFACE. > DO NOT USE CHEMICALS CONTAINING ALCOHOL, SOLVENTS OR SURFACTANTS—USE ONLY A SMALL AMOUNT OF WINDOW CLEANER OR DILUTE SOAP SOLUTION. > USE A CLEAN SOFT CLOTH (TISSUE PAPER, SUPERFINE FIBER OR COTTON FLANNEL) WHEN CLEANING TO AVOID SCRATCHING THE LENSES. > DO NOT ATTEMPT TO REPLACE THE BATTERY. THE BATTERY IS NOT REPLACEABLE. **WARNING: Under normal operating conditions, the 3D shutter glasses systems are**

**perfectly safe to** use for any duration you would normally view 3D images on your screen. However, some people may experience discomfort that could signal problems with the hardware, software and /or physical problem with your visual system. Discontinue use of the 3D glasses and consult a physician if you experience any of the following: headache, eyestrain, blurry vision, double vision, involuntary movements, eye or muscle twitching, confusion, loss of awareness of your surroundings, dizziness or disorientation. To minimize the potential for any of the above symptoms to arise, adjust the ambient lights darker. If you are using a computer system, set the monitor refresh rate to the highest possible setting. **EPILEPSY WARNING: IF YOU OR ANY MEMBER OF YOUR FAMILY HAS A HISTORY OF EPILEPSY, CONSULT A PHYSICIAN BEFORE USING THIS OR ANY OTHER 3D PRODUCTS.** © 2010 Michael Starks Permission is granted

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