



3D VISION™ PRO

USER GUIDE



NVIDIA.

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01 WELCOME

Congratulations on your purchase of NVIDIA® 3D Vision Pro, the professional grade active shutter based stereoscopic solution. The glasses and hub that make up 3D Vision Pro are both designed to give years of reliable service.

About this Guide

This guide discusses the installation and operation of the NVIDIA 3D Vision Pro hardware and software. There is a full section containing usage tips and troubleshooting guidelines.

Please read through the safety precautions and recommended viewing guidelines given on pages 3 and 4 under *Safety Requirements*.

System Requirements

Visit www.nvidia.com/3dvpro for a full list of supported graphics boards, applications, and 3D Vision Ready displays or projectors.

Safety Requirements

Do not wear the glasses in any situations that require unimpaired visual perception. Do not use the glasses as sunglasses.

Under normal conditions, stereoscopic 3D viewing is safe for any duration that you would normally view your display. However, some people may experience discomfort. To minimise the potential for experiencing visual problems or any adverse symptoms:

- > Take the stereoscopic 3D medical test to verify your ability to see stereoscopic 3D images.
- > Maintain a distance no closer than 2 to 2.5 feet away from the display. Viewing from too close a distance can strain your eyes.
- > Take regular breaks, at least 5 minutes after every hour of stereoscopic 3D viewing.
- > If you experience any of the following symptoms:
 - nausea, dizziness, or queasiness,
 - headache, or eyestrain,
 - blurry vision,
 - double vision that lasts longer than a few seconds,

Do not engage in any potentially hazardous activity (for example, driving a vehicle) until your symptoms have completely gone away.

If symptoms persist, discontinue use and do not resume stereoscopic 3D viewing without discussing your symptoms with a doctor.

Epilepsy



WARNING!

IF YOU OR ANY MEMBER OF YOUR FAMILY HAS A HISTORY OF EPILEPSY, CONSULT A DOCTOR BEFORE USING COMPUTER GAME PRODUCTS.

A small percentage of the population may experience epileptic seizures when viewing certain types of TV images or video games that contain flashing patterns of light.

The following people should consult a doctor before viewing in stereoscopic 3D:

- > Children under 5 years of age
- > Anyone with a history of epilepsy, or who has a family member with a history of epilepsy
- > Anyone who has ever experienced epileptic seizures or sensory disturbances triggered by flashing light effects.



WARNING!

SOME LIGHT PATTERNS MAY INDUCE SEIZURES IN PERSONS WITH NO PRIOR HISTORY OF EPILEPSY. DISCONTINUE STEREOSCOPIC 3D USE IF YOU EXPERIENCE ANY OF THE FOLLOWING SYMPTOMS WHILE VIEWING STEREOSCOPIC 3D IMAGES.

- > Involuntary movements, eye or muscle twitching
- > Muscle cramps
- > Nausea, dizziness, or queasiness
- > Convulsions
- > Disorientation, confusion, or loss of awareness of your surroundings

Do not engage in any potentially hazardous activity (for example, driving a vehicle) until your symptoms have completely gone away.

Do not resume stereoscopic 3D viewing without discussing the symptoms with your doctor.

02 UNPACKING EQUIPMENT

Prior to unpacking your new NVIDIA 3D Vision Pro solution, it is a good idea to visit www.nvidia.com/3dvrpro to download the current drivers you'll need during installation.

Be sure to inspect each piece of equipment shipped in the packing box. If anything is missing or damaged, contact your re-seller.

Equipment

The following parts and assemblies are included in the NVIDIA 3D Vision Pro boxes.



3D Vision Pro Glasses

The included visor can be snapped on to the glasses to reduce the amount of overhead light.



The included USB cable is used to charge the glasses. Connect the cable either to your computer or an external USB power adaptor.



The glasses come with various nose pieces to customise them for your comfort.

You also receive a pouch for your glasses and a special cleaning cloth. It is recommended to always keep your glasses in the pouch when not in use.



3D Vision Pro Hub

The hub connects to your computer and controls the glasses.



Connect the USB cable to the computer. If your Quadro board, projector or TV provide a VESA stereo connector connect the included VESA stereo cable from that connector to the 3D Sync input on the 3D Vision Pro Hub

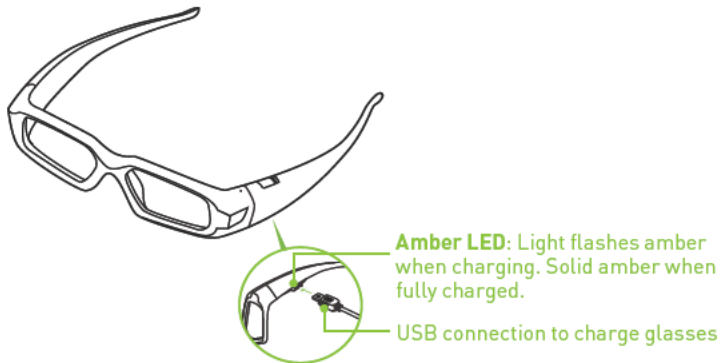
3D Vision Pro Glasses

Charging the Glasses



Note: We recommended that you fully charge your glasses now since it will take approximately three hours to complete. The glasses operate approximately 24 hours on a full charge.

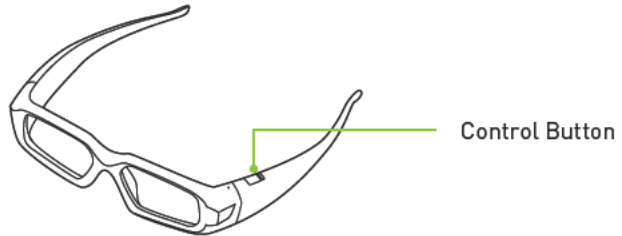
The glasses require periodic charging. To charge the glasses, use the USB cables that came with the glasses. Plug one end into the glasses and the other to any USB port on your system. You can also use a USB wall adapter to charge your glasses. Charge your glasses until the Amber charge light goes out. You can use the glasses while they are being charged.



If you are charging the wireless glasses by connecting them to your PC using a USB cable, make sure your PC does not go into power save mode. When your PC goes into power save mode, the wireless glasses are no longer charging. To fix this, disable any power saving options on your PC under the Windows Control Panel. Alternatively, you can use a USB wall charging device to charge the glasses directly from your wall power outlet without connecting to the PC. You can use your glasses while they are charging.

Using the Glasses

It is a good idea to keep the glasses in the protective pouch when you are not using them. The glasses will turn on automatically with motion, but if they are fully powered down you will need to press and release the control button to turn them on. The glasses turn off automatically when there is no activity.

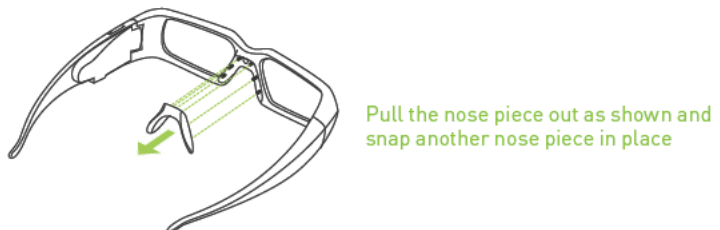


For transport, or any other time the glasses radio needs to be turned completely off, press and hold the control button until the lenses blink twice and then open. The glasses are now completely powered down and will not turn on with motion. To turn them on, press and release the control button.

! **Caution:** The wireless glasses are not prescription eye wear, sunglasses, nor a protective goggle. Do not use the glasses for any general eye wear purposes (e.g., driving, reading, protection from sunlight or ultraviolet light, etc.) as such use may result in injury.

Changing the Nose Piece

Your wireless glasses come with three interchangeable nose pieces to give you a comfortable fit. Simply pull out the current nose piece and insert the one that fits you best.

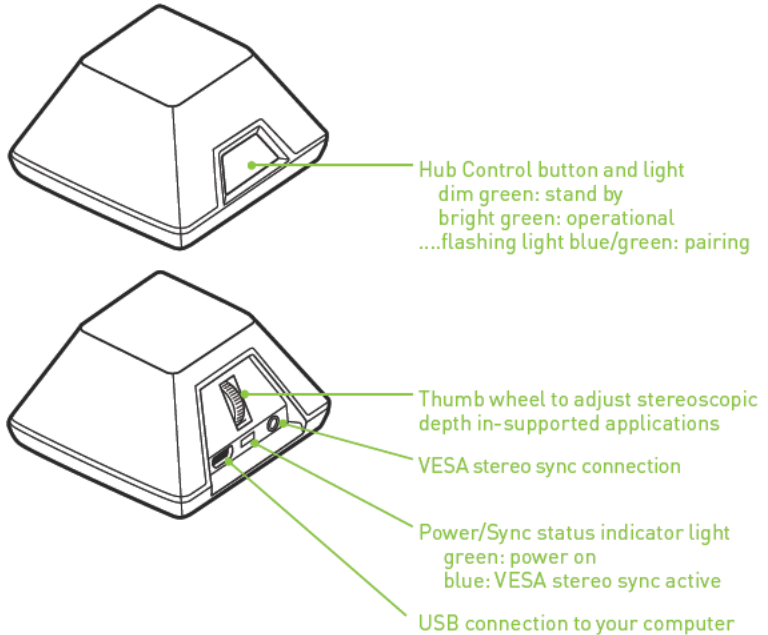


02

3D Vision Pro Hub

The 3D Vision Pro Hub connects to your system with the included USB cable. The Emitter has a back-lit button on the front that can be used to control the pairing with the glasses. The indicator brightens when hub is actively transmitting.

There is a thumb wheel on the back of the emitter that can be used to increase/decrease depth in some Direct3D based applications.



Note: USB Extenders and VESA sync extenders have been tested and qualified for use with the 3D Vision Pro Hub. Contact NVIDIA or your re-seller for the list of qualified adaptors.

03 INSTALLATION AND SETUP

Installing the hardware and software to your computer system is pretty straightforward. However, there is a specific order you must follow. The 3D Vision Pro Hub must be connected *AFTER* the USB drivers have been installed.



Note: Before beginning the installation, make sure your glasses are fully charged. See *Charging the Glasses* on page 6.

Installation

Connecting the Display

Use the following procedure to install and setup your system for 3D Vision Pro.

1. **Connect your display or projector to your supported NVIDIA graphics card.**
For 3D Vision Ready LCDs use the dual-link DVI cable supplied with the display.



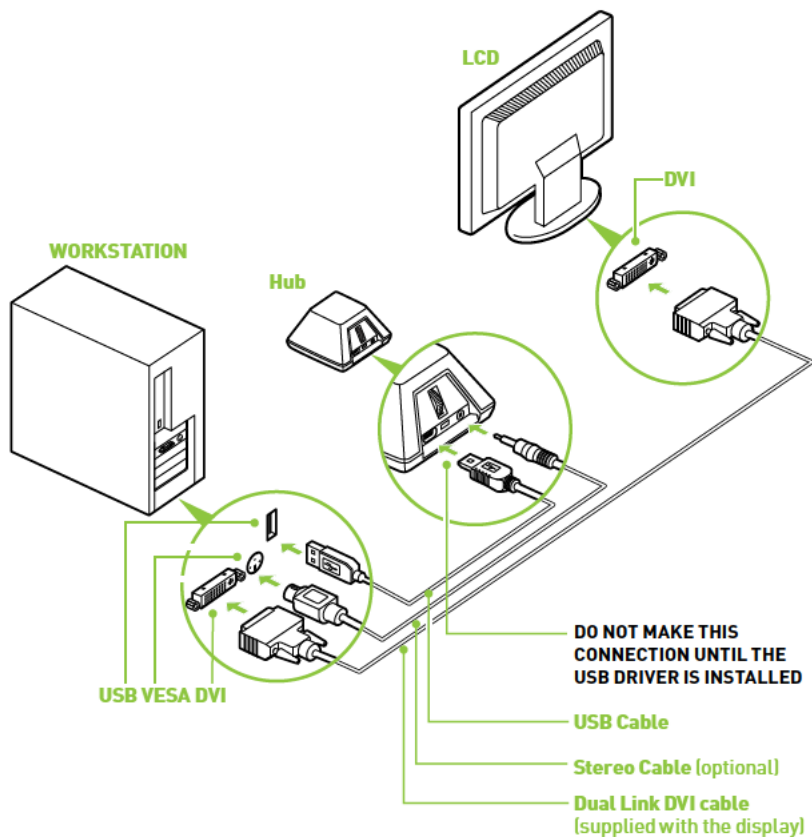
Note: NVIDIA Quadro graphics boards can support multiple stereo and non-stereo displays



Note: Make sure to select a display refresh rate of 100Hz or more from the NVIDIA or OS control panel..

See the following pages for connection diagrams.

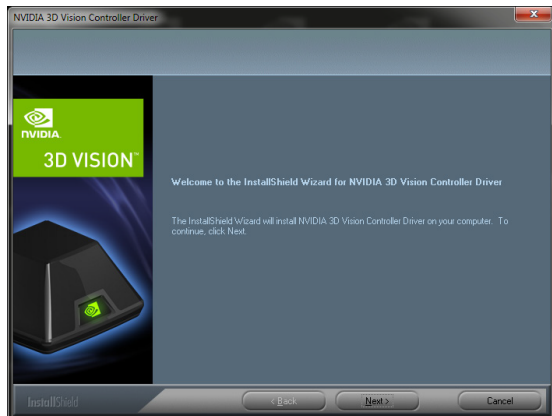
120 Hz LCD Connection Diagram



03

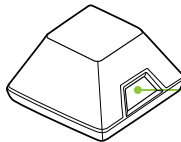
Installing the Drivers - Windows Vista and Window 7

1. Download the most recent 3D Vision Controller driver and display driver from www.nvidia.com/3dvprou
2. **Install the display driver.**
Follow the wizard and reboot if necessary.
3. **Install the 3D Vision Controller driver.**
Follow the steps in the wizard.
4. Plug in the 3D Vision Pro Hub to the USB cable.



If the OS prompts you to install the device, click install.

5. **Verify Hub Button glows dim green**
After a successful installation, the button on the Hub will glow a dim green



dim green logo

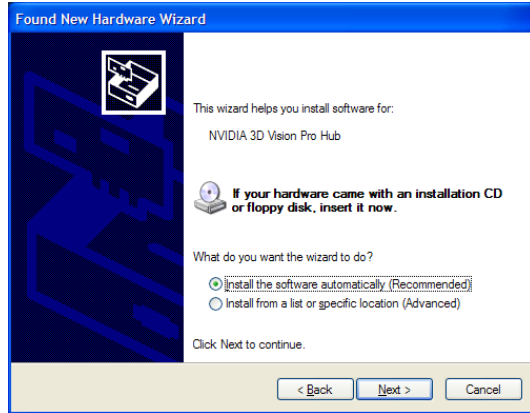
Installing the Drivers - Windows XP

1. **Download the most recent 3D Vision Controller driver and display driver from www.nvidia.com/3dvprou**
2. **Install the display driver.**
Follow the wizard and reboot if necessary.
3. **Install the 3D Vision Controller driver.**
Follow the steps in the wizard.
4. **Plug in the 3D Vision Pro Hub to the USB cable.**
Plugging in the Hub will start the Windows Found New Hardware Wizard

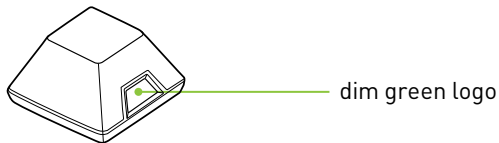


5. **Select "No, not at this time" when prompted about connecting to Windows update.**
Installing the driver in the previous steps installed the necessary files

03



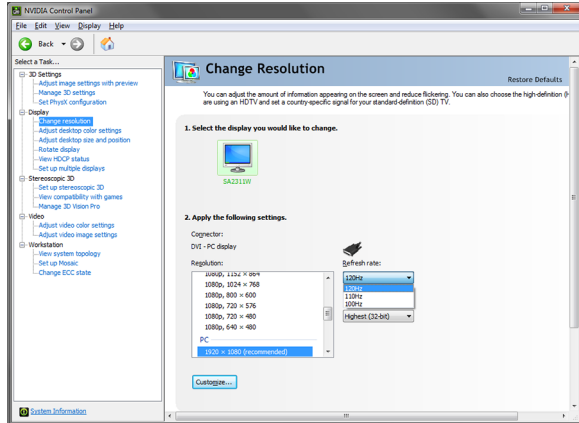
6. **Select and install the recommended drivers.**
The wizard will find the files need automatically
7. **Finish the Wizard.**
Upon completing the wizard the logo on the front button of the hub will be glowing a dim green.



Configure OpenGL Stereo (Quadro Only)

1. Verify the display refresh rate

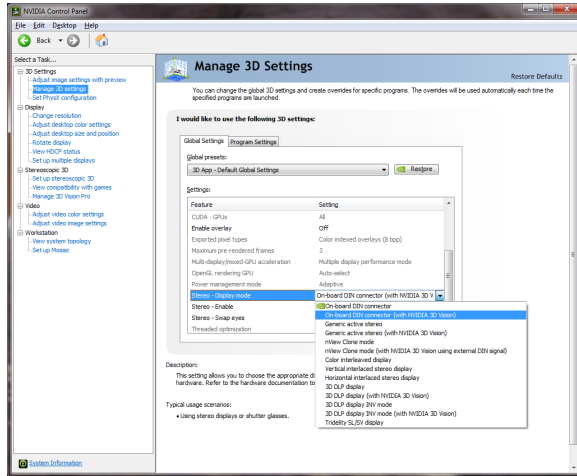
Unless your display device is designed to support stereo at a lower refresh rate, make sure to select a refresh rate of 100Hz or higher.



Depending on the lighting in your environment you may experience a pulsing of the image when looking through the glasses. If you notice this, you can adjust the refresh rate to align on an even multiple with your lighting refresh rate (e.g 60Hz lighting -> 120Hz display refresh, 50Hz lighting -> 100Hz display refresh).

2. Select the Stereo Output Format in Manage 3D Settings

Select the correct output format for your device



LCD Panels or Single Channel Projectors:

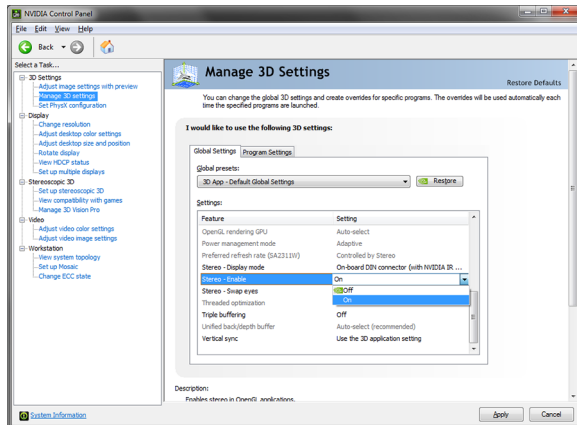
On-Board DIN Connector (with NVIDIA 3D Vision) or Active Stereo (with NVIDIA 3D Vision)

Dual Pipe / Clone Mode: nView Clone Mode (with NVIDIA 3D Vision using external DIN signal)

Real Projection DLP TV's: 3D DLP display (with NVIDIA 3D Vision)

3. Enable Stereo

Turn on stereo for supported applications



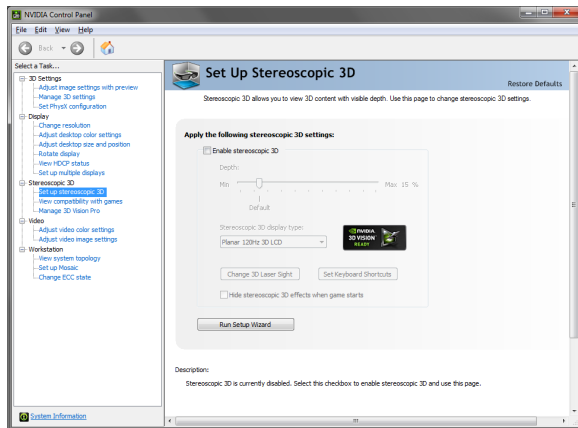
Configure DirectX Stereo

The DirectX Stereo driver does not need to be enabled. When enabled it will enable compatible applications including games, 3D BluRay players and supported professional applications.

There is more information on the DirectX Stereoscopic driver in DirectX Stereoscopic Driver section of this manual

1. Run the Configuration Wizard

Launch the Setup Wizard from the 3D Stereoscopic entry in the NVIDIA Control Panel



Installing the Drivers - Linux (Quadro Only)

On Linux, 3D Vision Pro requires the VESA stereo sync to be present and active, either from a supported Quadro Graphics board or display device.

Only the display driver is needed on Linux.

1. Download and Install Display Driver

Install the Linux display driver 260.19.36 or newer

2. Configure Stereo Mode=11 in the XConfig

3D Vision Pro is enabled with stereo mode 11 in the XConfig file. You can set this by manually editing the xorg.conf file or using NVIDIA's nvidia-xconfig utility. More information on settings are in the driver README.

3. Set the Storage Path for Paired Glasses Information:

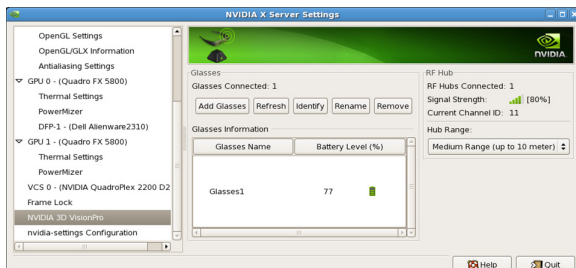
In order for the driver to store the paired glasses, you need to define a file with write access with the:
nvidia-xconfig --3dvisionpro-config-file="config file path"
command. More information is in the driver README.

4. Plug in the 3D Vision Pro Hub Before Starting X Server

The driver requires the Hub be present when loading, so make sure the Hub is plugged in before starting the X Server.

5. Manage 3D Vision Pro from the NVIDIA X Server Settings Utility

Glasses management appears in the NVIDIA X Server Setting utility under 3D Vision Pro. Functionality is the same as the Windows version described in the following pages.

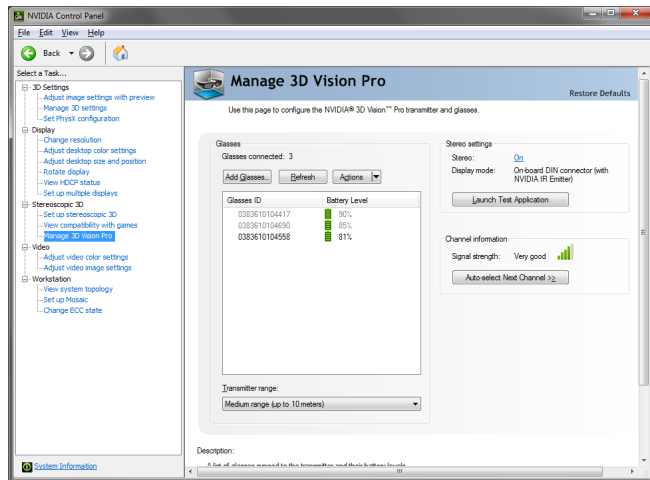


04 WORKING WITH 3D VISION PRO

3D Vision Pro operates on radio so the glasses need to be connected, or paired, with the hub. You can connect multiple glasses to a single hub and multiple hubs can operate in range of each other.

Accessing the 3D Vision Pro Control Panel

To open the NVIDIA Control Panel, right click on the desktop and select the **NVIDIA Control Panel**. You can also go to **Start** → **NVIDIA Corporation** → **NVIDIA Control Panel**.



Select **Manage 3D Vision Pro** from the topics in the left window pane. You may need to click on the **+** in front of **Stereoscopic 3D** to expand the topics.

Pairing Glasses to the Hub

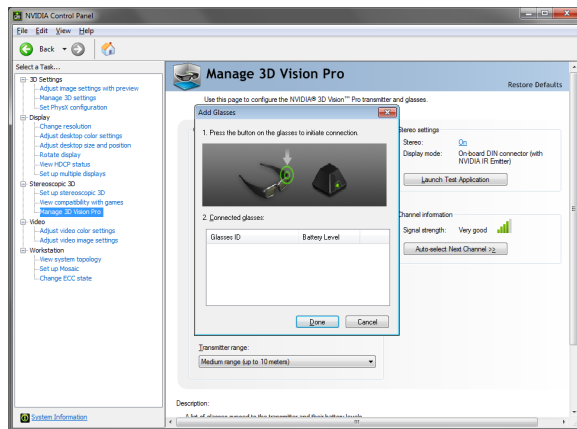
You can pair the glasses to the hub through the control panel or with just the buttons on the hub and glasses. Either version of pairing can be done while stereo applications are running or not. You can pair additional glasses without disrupting already paired glasses.

Pairing with the Control Panel

1. Open the 3D Vision Pro Control Panel

Navigate to the 3D Vision Pro control panel entry in the NVIDIA control panel

2. Press the Add Glasses Button



3. Press and hold the button on the glasses until the light next to the button blinks green

Holding the button on the glasses until it blinks green, and then releasing the button, places the glasses into their pairing mode. You can pair multiple glasses at one time.

4. Glasses name and battery level appear and glasses start to operate

Pairing is usually a very quick operation and the light on the glasses will turn solid green when paired. If a stereo application is running the glasses will start operating as well.

Pairing with the Buttons

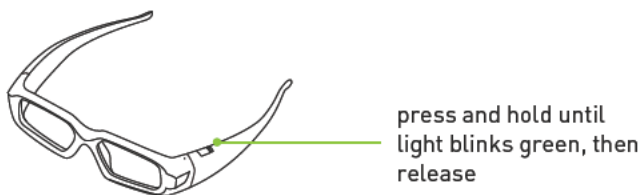
1. Press and Release the button on the Hub

The light on the hub will start alternating between green and cyan



2. Press and hold the button on the glasses until the light next to the button blinks green

Holding the button on the glasses until it blinks green, and then releasing the button, places the glasses into their pairing mode.



3. Light on the glasses will turn solid green, and hub will return to solid green

Pairing is usually a very quick operation and the light on the glasses will turn solid green when paired. If a stereo application is running the glasses will start operating as well.



Note: Adding glasses with the button also adds the glasses to the control panel. If you wish to pair many glasses at once, press the button on the hub twice, then pair the glasses. Glasses paired this way will not appear in the control panel but will operate.

04

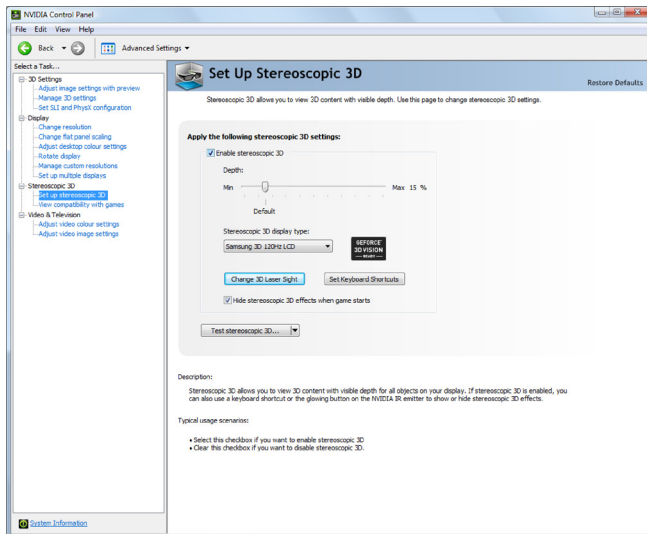
05 DIRECTX STEREOSCOPIC DRIVER

NVIDIA has provided tools for you to customise your 3D Vision experience for DirectX based applications. To access the tool menus, go to the NVIDIA Control Panel.

Accessing the NVIDIA Control Panel

To open the NVIDIA Control Panel, right click on the desktop and select the **NVIDIA Control Panel**. You can also go to **Start → NVIDIA Corporation → NVIDIA Control Panel**.

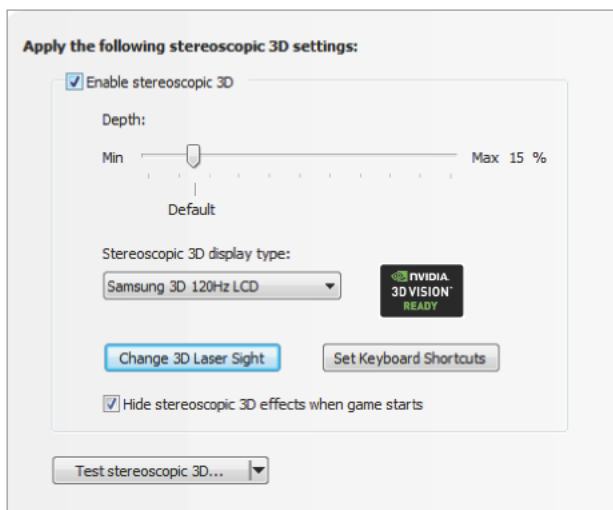
Select **Stereoscopic 3D** from the topics in the left window pane.



You may need to click on the **+** in front of **Stereoscopic 3D** to

Set Up DirectX Stereoscopic 3D Driver

This section of the NVIDIA Control Panel provides all the adjustments needed to enhance your experience. Each of the adjustments on this screen is discussed.

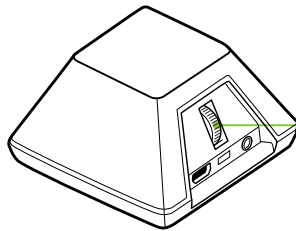


Adjusting the Depth

The depth amount in an application is the depth that the farthest object is placed in a scene. When 3D Vision is first installed on your system, the Depth is set at the default of 15%. If you are new to 3D gaming, 15% is a good point to start with. Viewing depth at a higher setting can be uncomfortable to some users. As you use 3D Vision, your eyes will become more accustomed to viewing stereoscopic 3D and you can incrementally increase the depth amount without eye strain.

On the *Set Up Stereoscopic 3D* screen, you adjust the depth amount by adjusting the slider to the desired amount. The depth setting on this slider indicates the depth amount for all supported applications when they are launched.

You can also change the depth amount by adjusting the thumb wheel on the back of the Hub. Any adjustments you make on the thumb wheel is reflected on the **Depth** slider in the NVIDIA Control Panel.



Thumb wheel to adjust depth while in a supported application

Another way to change depth while in a supported application is to use the keyboard shortcut keys:

- > To decrease depth, use **Ctrl+F3** (default shortcut keys)
- > To increase depth, use **Ctrl+F4** (default shortcut keys)



Any adjustments you make using keyboard shortcuts is reflected on the **Depth** slider in the NVIDIA Control Panel.

Stereoscopic 3D Display Type

The **Stereoscopic 3D display type** is a drop-down list of all 3D Vision Ready displays that were found by the Setup Wizard. This list is populated by the Wizard. If you had more than one 3D Vision-Ready display attached during Setup, they will be reflected in the list.

05

06

TIPS AND TROUBLESHOOTING

NVIDIA provides an online knowledge base system with answers to most common questions available 24x7x365. You can also use it to submit questions online to our technical support staff. .

Stereoscopic 3D is not Working

- > **Check and make sure that stereoscopic 3D is enabled.** Review Section 3 of this guide.
- > Windows Vista or 7 only: Run the Setup Wizard to verify your hardware is operating properly. Go to the NVIDIA Control Panel (right click on the desktop). Select **Set Up Stereoscopic 3D**. Then select **Run Setup Wizard** from **Test Stereoscopic 3D** drop down menu.
- > **Ensure your glasses are fully charged.**

You can check the battery level of your glasses by pressing the **Control** button.

 - If the light next to the button is green, you have charge.
 - If the light is red, you have less than two hours remaining and it is recommended that you recharged your glasses.
 - Check the battery level in the control panel
 - If the light does not turn on, the battery is drained and the glasses must be recharged.
- > If you are charging the glasses by connecting them to your PC using a USB cable, make sure your PC does not go into power save mode. When your PC goes into power save mode, the

wireless glasses are no longer charging. To fix this, disable any power saving options on your PC under the Windows Control Panel. Alternatively, you can use a USB wall charging device to charge the glasses directly from your wall power outlet without connecting to the PC.

- > **Make sure you have used the DVI cable that was shipped with your 3D Vision Ready 120Hz LCD display.** This is a dual-link cable and 3D Vision will not operate without it.

Image is not Clear

Depth Needs Adjusting

Adjust depth amount in your application or for DirectX applications using the slider on the NVIDIA Control Panel *Setup* screen. If you are in a supported application, use the thumb wheel on the back of the Hub or the shortcut keys **Ctrl+F3** to decrease depth and **Ctrl+F4** to increase depth.

Excessive Flickering

Flicker in your peripheral vision can be caused by differences in frequencies at which 3D Vision Pro operates and the lighting in your room. This type of flicker can be avoided by turning off the lights or changing the stereoscopic 3D refresh rate. To see the refresh rates, run the Setup Wizard from the NVIDIA Control panel

- > 120 Hz refresh rate for use in North America when lights are on
- > 110 Hz refresh rate for daytime and when lights are off
- > 100 Hz refresh rate for countries with 50 Hz lighting and when lights are on

Eyestrain/Headache

If you are experiencing eyestrain or headaches, it could be due to excessive depth amount. Change the depth in one of the following ways:

- > Check to see if your application has an eye separation adjustment and reduce it to a more pleasing level. A maximum separation of about 10 pixels, when looking at the screen without the glasses is a good guide to follow.
- > Adjust the settings in your application to move the scene back "into the screen" rather than having it come out of our screen.



Warning: If eyestrain and headaches persist, discontinue viewing in stereoscopic 3D and consult a doctor.

06

07 COMPLIANCE AND CERTIFICATIONS

The NVIDIA 3D Vision Pro system:

3D Vision Pro Hub, P753

3D Vision Pro Glasses, P703

Is compliant with the following regulations:

- > Agência Nacional de Telecomunicações (ANATEL)
- > Australian Communications and Media Authority (C-Tick)
- > Comisión Federal de Telecomunicaciones (COFETEL)
- > Conformité Européenne (CE)
- > Federal Communications Commission (FCC)
- > GOST-R (Gosstandart)
- > Industry Canada (IC)
- > Korea Communications Commission (KCC)
- > Ministry of Internal Affairs and communications (MIC)
- > Ministry of Communications (MOC)
- > National Communication Commission (NCC)
- > State Radio Regulatory Commission of the People's Republic of China (SRRC)
- > Underwriters Laboratories (UL/cUL)
- > The Wireless Planning & Coordination Wing of the Ministry of Communications (WPC)

Brazil Compliance

ANATEL (Agência Nacional de Telecomunicações)

Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela Resolução 242/2000, e atende aos requisitos técnicos aplicados” Para maiores informações, consulte o site da ANATEL www.anatel.gov.br



Australia and New Zealand Compliance

C-Tick (The Australian Communications and Media Authority)



Mexico Compliance

COFETEL (Comisión Federal de Telecomunicaciones)

3D Vision Pro Glasses, P703

COFETEL #: RCPNVP711-0125

3D Vision Pro Hub, P753

COFETEL #: RCPNVP711-0126

Este equipo opera en una base secundaria, y consecuentemente, debe aceptar interferencia, incluyendo la de otras estaciones del mismo tipo, y no puede causar interferencia a sistemas que operen en una base primaria

European Union Compliance

CE (European Conformity; Conformité Européenne)



3D Vision Pro Hub, P753

3D Vision Pro Glasses, P703

Receiver Category 3

07

US Federal Communications Commission Compliance

FCC (Federal Communications Commission)

3D Vision Pro Hub, P753

FCC ID: VOB-P753A

3D Vision Pro Glasses, P703

FCC ID: VOB-P703A

This device can be expected to comply with part 15 of the FCC Rules provided it is assembled in exact accordance with the instructions provided with this kit. Operation is subject to the following conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- > 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 connected.
- > Consult the dealer or an experienced radio/TV technician for help.



WARNING: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

Russia Federal Compliance

GOST-R (Gosstandart)

3D Vision Pro, P703 & P753



Canada Compliance

IC (Industry Canada)

3D Vision Pro Hub, P753

IC: 7361A-P753A

3D Vision Pro Glasses, P703

IC: 7361A-P703A

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Korea Compliance

KCC (Korea Communications Commission)

3D Vision Pro Glasses, P703

3D Vision Pro Hub, P753



KCC-CRM-NVA-P703A



KCC-CRM-NVA-P753A

당해 무선설비는 운용 중 전파혼신 가능성이 있음
 당해 무선설비는 전파혼신 가능성이 있으므로 인명안전과 관련
 된 서비스는 할 수 없음

Japan Compliance

MIC (Ministry of Internal Affairs and Communications)

3D Vision Pro Hub, P753

 R 003WWA110039

3D Vision Pro Glasses, P703

 R 003WWA110040

Israel Compliance

MOC (Ministry of Communications)

3D Vision Pro Glasses, P703

MOC ID: 51-25645

3D Vision Pro Hub, P753

MOC ID: 51-25646

Taiwan Compliance

NCC (National Communication Commission)

3D Vision Pro Hub, P753

 CCAB11LP0260T1

3D Vision Pro Glasses, P703

 CCAB11LP0250T8

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻
 率、加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應
 立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無
 線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設
 備之干擾。

China Compliance

SRRC (State Radio Regulatory Commission of the People's Republic of China)

3D Vision Pro Glasses, P703 (NVIDIA)

CMIIT ID: 2011DJ0705

3D Vision Pro Hub, P753

CMIIT ID: 2011DJ0706

UL/cUL Listed and CB Scheme Certified

UL (Underwriters Laboratories)



For use only with UL Listed I.T.E.

India Compliance

WPC (The WIRELESS PLANNING & COORDINATION (WPC) Wing of the Ministry of Communications)

3D Vision Pro Glasses, P703

ETA CERTIFICATE NO.: 1066/2011/WRLO

3D Vision Pro Hub, P753

ETA CERTIFICATE NO.: 1065/2011/WRLO

08

IMPORTANT SAFETY INFORMATION

NVIDIA products are designed to operate safely when installed and used according to the product instructions and general safety practices. The guidelines included in this document explain the

potential risks associated with equipment operation and provide important safety practices designed to minimise these risks. By carefully following the information contained in this document, and the specific instructions provided with your product, you can protect yourself from hazards and create a safer environment.

The product is designed and tested to meet IEC-60950-1, the Standard for the Safety of Information Technology Equipment. This also covers the national implementation of IEC-60950-1 based safety standards around the world e.g. UL-60950-1. These standards reduce the risk of injury from the following hazards:

- > **Electric shock:** Hazardous voltage levels contained in parts of the product
- > **Fire:** Overload, temperature, material flammability
- > **Mechanical:** Sharp edges, moving parts, instability
- > **Energy:** Circuits with high energy levels (240 volt amperes) or potential as burn hazards
- > **Heat:** Accessible parts of the product at high temperatures
- > **Chemical:** Chemical fumes and vapors
- > **Radiation:** Noise, ionising, laser, ultrasonic waves

Retain and follow all product safety and operating instructions. Always refer to the documentation supplied with your equipment. Observe all warnings on the product and in the operating instructions.



Note: Read all safety information below and operating instructions before using 3D Vision Pro to avoid injury .



Note: Keep this features guide for 3D Vision Pro handy for future reference.



WARNING: Failure to follow these safety instructions could result in fire, electric shock or other injury or damage.





WARNING: Electrical equipment can be hazardous if misused. Operation of this product, or similar products, must always be supervised by an adult. Do not allow children access to the interior of any electrical product and do not permit them to handle any cables.

Important Safety Information

To reduce the risk of bodily injury, electric shock, fire, and damage to the equipment, observe the safety labels included on the equipment.

Symbols on Equipment

Sign	Meaning
	This symbol in conjunction with any of the following symbols indicates the presence of a potential hazard. The potential for injury exists if warnings are not observed. Consult your documentation for specific details.
	This symbol indicates the presence of hazardous energy circuits or electric shock hazards. Refer all servicing to qualified personnel. WARNING: To reduce the risk of injury from electric shock hazards, do not open this enclosure. Refer all maintenance, upgrades, and servicing to qualified personnel.



This symbol indicates the presence of electric shock hazards. The area contains no user or field serviceable parts. Do not open for any reason.

WARNING: To reduce risk of injury from electric shock hazards, do not open this enclosure.

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General Precautions

To reduce the risk of personal injury or damage to the equipment:

- > Follow all cautions and instructions marked on the equipment. Do not attempt to defeat safety interlocks (where provided).
- > Do not bend, drop, crush, puncture, incinerate, or open glasses or hub.
- > Shut down product before installation
- > Do not connect or disconnect any cables when perform installation, maintenance, or reconfiguration of this product during an electrical storm
- > Do not use 3D Vision Pro in rain or near sink, or other wet locations. Take care not to spill any food or liquid into stereo glasses system. In case 3D Vision Pro gets wet, unplug all cables and turn 3D Vision Pro off before cleaning, and allow it to dry thoroughly before turning it on again.
- > Never turn on any equipment when there is evidence of fire, water, or structural damage.
- > Place the product away from radiators, heat registers, stoves, amplifiers, or other appliances that produce heat.
- > Operate 3D Vision Pro in a place where the temperature is always between 0°C and 25°C.
- > Store 3D Vision Pro in a place where the temperature is always between -20°C and 25°C Don't leave 3D Vision Pro in your car, because temperatures in parked cars can exceed this range.
- > When you're using 3D Vision Pro or charging the battery, it is normal for 3D Vision Pro to get warm. The exterior of stereo glasses functions as a cooling surface that transfers heat from inside the unit to the cooler air outside
- > If you use the USB Power Adapter to charge stereo glasses, read the specification of the power adapter carefully at first, make sure the output port of power adapter meets the USB port specification, make sure the power adapter is fully assembled before you plug it into a power outlet. Then insert the USB Power Adapter firmly into the power outlet. Do not connect or disconnect the USB Power Adapter with wet hands.
- > Never force a connector into a port. Check for obstructions

on the port. If the connector and port don't join with reasonable ease, they probably don't match. Make sure that the connector matches the port and that you have positioned the connector correctly in relation to the port

- > Do not use conductive tools that could bridge live parts
- > Do not make mechanical or electrical modifications to the equipment.
- > Use the product only with approved equipment.
- > There is a lithium battery in your wireless glasses. You can recharge the battery whenever it is convenient. Like all lithium batteries, it will slowly age. After a while it will lose the capability to be charged to it's full capacity. The degradation is slow and will vary depending on your use and recharging habits.
- > If the product sustains damage requiring service, disconnect the product from the AC electrical outlet and refer servicing to an NVIDIA authorized service provider. Examples of damage requiring service include:
 - The power cord, extension cord or plug has been damaged.
 - Liquid has been spilled on the product or an object has fallen into the product.
 - The product has been exposed to rain or water.
 - The product has been dropped or damaged.
 - There are noticeable signs of overheating.
 - The product does not operate normally when you follow the operating instructions
- >



WARNING: Your stereo glasses contain sensitive components including a rechargeable battery. Prevent damage by making sure you do not drop, bend, or crush your stereo glasses or drop into fire.

08

Precautions for Installation, Maintaining and Servicing

To reduce the risk of electric shock or damage to the equipment when installing, maintaining, or servicing products, observe the following precautions:

Installation:

- > Follow the Pre/Post-installation procedures in other part of the manual.
- > Follow the Installing and Configure Instruction in the manual.

Maintaining and Servicing:

- > Never attempt to repair 3D Vision Pro yourself. 3D Vision Pro does not contain any user-serviceable parts. Do not attempt to open your stereo glasses and the emitter box, disassemble them, or remove the battery. You run the risk of electric shock and voiding the limited warranty.
- > To clean stereo glasses system, turn stereo glasses off. Then use a soft, slightly damp, lint-free cloth. Avoid getting moisture in openings. Don't use window cleaners, household cleaners, aerosol sprays, solvents, alcohol, ammonia, or abrasives to clean stereo glasses system. Disposing of 3D Vision Pro properly
- > Upon completion of any service or repairs to the product, have your authorized service provider perform any safety checks required by the repair procedure or by local codes to determine that the product is in proper operating condition.
- >

Power Rating

- > 3D Vision Pro Hub, P753: 5V DC, 200mA
- > 3D Vision Pro Glasses, P703: 5V DC, 100mA

Precaution for Communication Cable

To reduce the risk of exposure to shock hazard from communication cable:

- > Do not connect communication cable during a lightning storm. There may be a remote risk of electric shock from lightning.
- > Do not connect or use communication cable in a wet location.
- > Disconnect the communication cable before opening a product enclosure, touching or installing internal components.

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WEEE Warning Message

Symbol for Separate Collection in European Countries. This symbol indicates that this product is to be collected separately.

The following apply only to users in European countries:

- This product is designated for separate collection at an appropriate collection point. Do not dispose of as household waste.
- For more information, contact the retailer or the local authorities in charge of waste management.



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