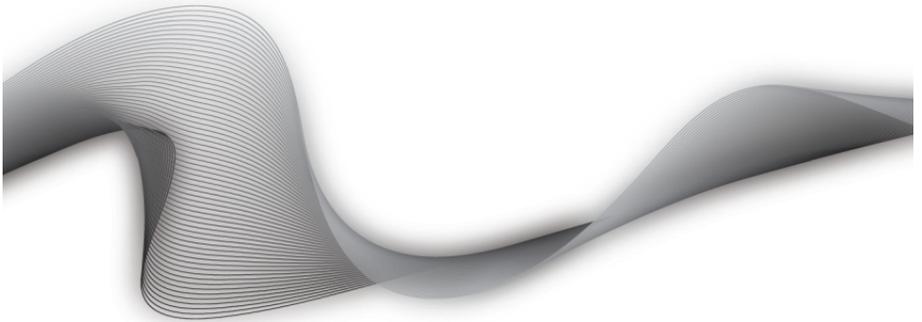


**XPAND DLP® LINK™ 3D GLASSES**  
*Model No X102*  
*User Guide*

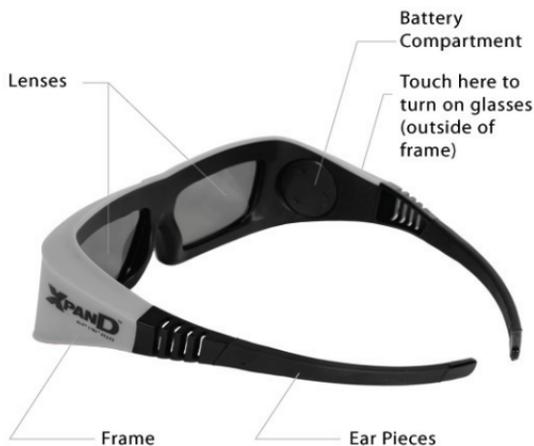




## What's Included

- » Glasses
- » Extra battery
- » Battery key
- »

## Getting to Know Your XPAND 3D Glasses



Picture 1: X102 Overview

XPAND DLP-Link™ 3D Glasses can only be used with DLP-Link™ 3D ready TV Sets and DLP-Link™ Projectors. For the current list of supported systems please visit our web site: [www.xpandcinema.com](http://www.xpandcinema.com). This product can be worn over prescription glasses, but it cannot be used as sunglasses.

## Getting Started

1. Set your playback device to 3D mode.
2. Turn on your X<sub>PAN</sub>D 3D glasses (refer to Picture 1) and place them on your head. That's it! You are ready to start enjoying your 3D experience.

## Stereoscopic Vision and 3D

When you see the world through both eyes, you are actually looking at two pictures merged into one. Your right eye and your left eye each deliver a separate image to your brain, which meshes these two images into one three-dimensional picture.

Most movies in the past were only able to provide one image on the screen. Thus 3D effects have to be simulated by other means. Your X<sub>PAN</sub>D 3D glasses, however, are able to provide a different view for each eye, more closely simulating true 3D vision.

Each scene of your 3D content has two images, one drawn from a right-eye view and the other from a left-eye view. Your display shows these alternating views so fast that your eyes cannot see the change.

Your X<sub>PAN</sub>D 3D glasses are equipped with shutters in each lens. So, when the right-eye image is displayed on the screen, the left lens of your X<sub>PAN</sub>D 3D glasses is closed, allowing only the right eye to see the image. When the left-eye image is displayed, the process is reversed and only the left eye can see the image. These images alternate so quickly that the eye sees only one smooth picture, making it look like you are actually inside a 3D environment.

## What do I need for viewing 3D?

- » 3D content (movies, video games, etc.)
- » A 3D Playback Device (PC, gaming console, Blu-Ray player, etc) that matches the requirements of your display or projector
- » A 3D Enabled DLP-Link™ or a 3D Enabled DLP projector
- » X<sub>PAN</sub>D DLP® Link™ 3D glasses

## **Maintenance of Your XPAND 3D Glasses**

Your XPAND 3D glasses represent the state of the art in high-speed optical switching technology. With proper care they should give you many years of trouble-free operation of 3D viewing enjoyment.

### ***Turning On/Off Your Glasses***

To turn your glasses ON lightly pass or brush your fingers along the right side (outside) of your glasses frame over the XPAND logo (see the power on logo). The glasses will turn off automatically after 5 minutes when they stop receiving the stereo synchronization signal from your TV or projector.

### ***Low Battery Warning (see also Storing your glasses, page 4)***

The battery warning is intended to trigger when the battery level falls below 2.6V.

The battery level is tested when entering either the off mode or the turn on mode. (1) If a low battery is detected when entering the off mode, the lens will flash in an alternating pattern from one to the other at about 1 cycle per second. (2) If a low battery is detected when entering the turn on mode the lens will flash alternating clear three times. Since turn on is accomplished when the lenses are dark, the light flashes are kept to a minimum. So the flashes are only long enough to be seen; for a few seconds.

### ***Handling***

As with any optical device you should use care to prevent damage to the optical elements of your XPAND 3D glasses. The lenses are sensitive and can be cracked if the glasses are rotated or twisted. The glasses should be held by the frame in order to avoid getting fingerprints on the lenses or scratching them.

Don't leave your XPAND 3D glasses unprotected. Store the 3D glasses away from dust and moisture.

Avoid stressing the XPAND 3D glasses, frames, and lenses. Do not stretch or bend the frames.

Do not scratch the lenses.

### **Storing Your XpAND 3D Glasses**

It is recommended that the glasses be stored away from any light sources such as fluorescent lights or be covered so that unintended light does not keep the glasses in the on-mode, thus draining the battery. Under certain 2D viewing conditions the glasses may flicker randomly if the projector is not in 3D Sync mode. The storage temperature should be standard room temperatures as high temperature environments can reduce battery life.

### **Changing the Battery**

The lenses of your glasses will cease to turn on when the battery is discharged. For the optimal viewing experience, please replace the battery when this happens.

Step by step replacement:

1. Place the key as shown below.



2. Turn the key counterclockwise (left) about 1/8 of a turn.
3. Remove the old battery.



4. Insert the new battery inside the compartment.
5. Place the key on the battery and turn it clockwise (right) about 1/8 of a turn.
6. Remove the key.

Each battery will last for approximately 120 hours depending on your usage.

Your glasses come with an extra battery. Please store it in a dry, safe place.

Additional batteries can be ordered at [www.XPAND3dtv.com](http://www.XPAND3dtv.com) or purchased locally from XPAND dealers.

### **Glasses Range**

The range of your glasses, how far you can sit from your screen, is based on several factors including:

- » Ambient light: other light sources in the room
- » If you are using a projector, the gain level of your screen
- » Note – this will affect off-axis performance as you get further off to the side.
- » The ANSI Lumens (brightness) rating of your projector Below is a chart that provides range *estimates* based upon a projector screen gain of 1.0:
- » Extended white-light range: this range can vary from 50' to 100'.

Example: 100 ANSI Lumens = 2 feet (extended range model - 1/2 for SUBA or SUBB serial number code).

ANSI Lumens*	Range in feet
2500	40-50
3000	50-60
3500	60-70
4000	70-80
5000	90-100

\* consult your projector or TV manual for your device's ANSI Lumens rating. Actual ranges may vary due to projector output.

## Limited Warranty Coverage

### **What IS Covered**

If your product does not work properly because of a defect in materials or workmanship, XPAND (referred to as “the warrantor”) will, for the length of the period on the chart below, which starts with the date of original purchase (“warranty period”), at its option either (a) repair your product with new or refurbished parts, (b) replace it with a new or a refurbished equivalent value product, or (c) refund your purchase price. The decision to repair, replace or refund will be made by the warrantor.

Product	Parts	Labor
X <span>PAN</span> D DLP® Link™ 3D Glasses	12 Months	Not Applicable

During the “Parts” warranty period, there will be no charge for parts. This Limited Warranty excludes both parts and labor for non-rechargeable batteries and frame. This warranty is extended only to the original purchaser of a new product which was not sold “as is”.

### **What IS NOT Covered**

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, Improper maintenance, power line surge, lightning damage, modification, introduction of sand, humidity or liquids, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a Factory Service Center or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER “LIMITED WARRANTY COVERAGE”.

THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY.

(As examples, this excludes damages for lost time, travel to and from the servicer, loss of or damage to media or images, data or other memory or recorded content. The items listed are not exclusive, but for illustration only.)

ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Service Center. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department.

PARTS AND SERVICE, WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY, ARE YOUR RESPONSIBILITY.

### ***Length of Warranty***

The above limited warranties extend for 12 months from the date the X<sub>PAND</sub> 3D glasses are delivered to you as the original purchaser.

### ***What You Must Do***

You must inspect your X<sub>PAND</sub> 3D glasses for damage before using them. If the X<sub>PAND</sub> 3D glasses have been damaged in shipping, please return them immediately to the place of purchase for replacement.

To be eligible for warranty service, you must return the X<sub>PAND</sub> 3D glasses within 12 months of purchase accompanied by proof of purchase to: ATTN: RMA Department, X<sub>PAND</sub>, 1017 Cole Ave, Los Angeles, CA 90038

Before returning the X<sub>PAND</sub> 3D glasses for warranty repair, you must obtain a Return Material Authorization (RMA) number by contacting our Technical Support staff at [rma@XPANDcinema.com](mailto:rma@XPANDcinema.com). Please pack the X<sub>PAND</sub> 3D glasses carefully, showing the RMA# on the outside of the box. Prepay and insure them, because we are not responsible for them while en route to us. If you do not insure the X<sub>PAND</sub> 3D glasses, you assume the risk of loss or damage in transit. We will pay return shipping.

### ***Other Conditions***

The warranties set forth above are in lieu of all other implied and express warranties, whether oral or written. The agents, employees, distributors, and dealers of XPAND, are not authorized to make modifications to the warranties, nor are any additional warranties binding on XPAND.

Accordingly, additional statements such as dealer advertising or presentations, whether oral or written, do not constitute warranties by XPAND, and should not be relied upon as a warranty of XPAND.

### **Warning!**

Carefully read and follow all warnings in the User's Guide to reduce health risks associated with viewing media in 3D. Before allowing a child to view 3D media, Parents or Guardians must read and follow the warnings and ensure that the child understands and follows the warnings.

### ***May Cause Epilepsy and Seizures***

Some people have a condition that can cause them to experience seizures or lose consciousness momentarily while viewing certain kinds of flashing lights or patterns. These persons may have seizures while watching some kinds of television pictures or playing certain video or computer games. Persons who have not had any previous seizures may still have an undetected seizure condition.

If you or anyone in your family has experienced symptoms linked to a seizure condition, including experiencing seizures or a loss of awareness, consult your physician before viewing 3D media.

We recommend that Parents or Guardians observe their children while the children use 3D glasses. Discontinue use immediately and consult your physician if you or your child experience any of the following symptoms: dizziness, altered vision, eye or muscle twitching, involuntary movements, loss of awareness, unconsciousness, disorientation, or seizures. Do not use 3D glasses for extended periods of time.

### ***May Cause Eye Fatigue***

Some users have reported dizziness, headaches, or eye fatigue as a result of viewing media in 3D. Discontinue use if you or your child experience any

of these conditions. Do not use 3D glasses for extended periods of time. Parents or Guardians should limit use by children to no more than a few hours per day.

***Not for Use by Young Children***

This product is not designed for use by children under the age of six. Artificial stereo vision may not be safe for very young children and may cause serious, permanent damage to their vision.

***Choking Hazard: Keep Out of Reach of Small Children***

Babies and young children could choke on small pieces associated with 3D glasses. Keep the 3D glasses out of reach of small children.

***Stereoscopic Viewing May Cause a Slight After-Effect in Your Vision***

Your eyes change to accommodate viewing through stereoscopic glasses. Wait a few moments after you remove the 3D glasses for your eyesight to return to normal before resuming your regular activities.

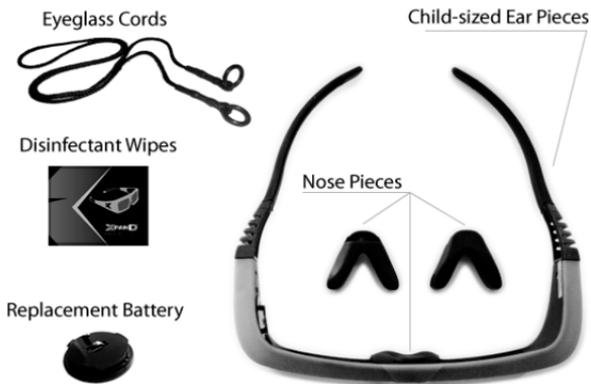
***Don't Use the Glasses Where Loss of Balance or Limiting Your Field of Vision May be Dangerous to You***

Do not use near staircases, ledges or balconies. You may risk falling during or after use. Never use the 3D glasses if you already feel tired or ill.

***3-D Glasses Are Only Intended for Indoor Use With Televisions or Computers***

Any other use could result in serious injury or death. Do not wear 3D Glasses as sunglasses or safety glasses. Never wear 3D glasses while driving, swimming, or operating machinery.

## Optional Accessories



## XpanD DLP® Link™ 3D Glasses Model No X102 FAQ

### ***How do I turn the glasses ON?***

Lightly brush your fingers along the outside right side of the glasses frame over the XpanD logo. The glasses are “ON” when the lenses turn light grey in color.

### ***How do I turn the glasses OFF?***

The glasses will turn “OFF” automatically after 5 minutes when they stop receiving the DLP® Link™ signal from your 3D-ready projector or 3D-ready TV and the lenses will turn green in color.

### ***How do I know when the battery is dying or dead?***

When the X102 DLP® Link™ glasses reach 20 hours of battery life, the glasses will slowly blink, left-to-right to indicate the battery is low in power.

***When the glasses are off, why are there spots on the lenses?***

Spots on the lenses are a normal operation of liquid crystal.

***Which projectors can I use the X102 DLP® Link™ glasses with?***

A projector that has the DLP® Link™ 3D ready logo. Please check with your local dealer for an extensive list of DLP® Link™ 3D ready projectors.

***Are these glasses compatible with any TV or computer?***

The X102 DLP® Link™ glasses only work with Mitsubishi and Samsung DLP® Link™ 3D ready TVs. The X102 DLP® Link™ glasses are not compatible with any computer screens, 3D LCD TVs or any other product that does not bear the DLP® Link™ 3D ready logo.

***Do the X102 DLP® Link™ glasses work in the movie theatre?***

They will not work in movie theaters, and movie theater glasses will not work with your DLP® Link™ 3D ready projectors and TVs.

***What can I watch with the X102 DLP® Link™ glasses?***

3D Content (movies, video games, educational), 3D Playback Device (PC, gaming console, Blu-Ray player) that match 3D Enabled Rear Projection or DLP® Link™ 3D ready projector or TV.

***Are all 3D products cross-compatible?***

No, they are not, so make sure when you purchase a DLP® Link™ 3D ready projector or TV they are designed to work with each other.

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