

A&D·3D
bestView

Operating Instructions
Functional Manual

Digital 3D Filter for 3D DLP Projector

Model. **ADF-4000**



A&D 3D Co., Ltd. – Analogue and Digital 3D

Head Office :

209 Multimedia Center, Chungnam Techno Park, 511, Jiksan-eup,
Seobuk-gu, Cheonan-city, Chungnam-do, 331-858, KOREA

Phone : +81-41-589-0790

Fax : +81-41-589-0799

Email : and3d@andkr.co.kr sales@andkr.co.kr

Website : <http://www.bestviewssystem.com> <http://www.andkr.co.kr>

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SAFETY INSTRUCTIONS

The bestView ADF-4000 Installs onto existing equipment : Please follow all directives from the projector manufacturer in addition to the following safety guidelines.

This equipment is intended for use in a restricted access location. Before installing or operating your bestView ADF-4000, please read this manual thoroughly, and retain it for future reference.

All instructions for operating and use of this equipment should be followed precisely. Installation and preliminary adjustments should be performed by qualified A&D 3D Co. Ltd. personal or authorized A&D 3D Co., Ltd. service dealers.



ATTENTION



ATTENTION



To avoid any damage :

- The rated voltage of ADF-4000 is AC 110~240V or DC 24~26V.
Serious problems can occur if the power isn't properly supplied.
- The **bestView** ADF-4000 should not be used with projectors over 7,000 ANSI lumens.
- The panel window of **bestView** ADF-4000 should be placed properly distance from projectors

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1. OVERVIEW

1-1 **bestView** ADF-4000 TECHNOLOGY HIGHLIGHTS

No delicate alignment and installation

The bestView ADF-4000 is a polarization modular that can be placed simply with your DLP 3D-Ready projector.

Change over 2D to 3D and 3D to 2D simply

Practical design allows the user to switch between 2D and 3D DLP projector presentations using the same projector.

Low maintenance cost

The bestView ADF-4000 has longer life with automatic control and it uses inexpensive circular polarizing passive 3D glasses.

Easy installation and removal

The bestView ADF-4000 can be added to and removed very easily only moving polarization window from projector lens using remote controller.

Multi purpose

The bestView ADF-4000 is for both professionals and consumers and is perfect for boardroom presentations, conferences, classrooms, lectures, home theater or any environments.

1-2 ABOUT THIS MANUAL

This manual provides instructions for proper setting of the bestView ADF-4000, along with recommended daily operation procedures for running a 3D projector and computer when the bestView ADF-4000 system is installed. Please use this guide in conjunction with the user manual and installation instructions for your projector; all warnings, guidelines, and advisories in the projector's user manual apply.

- Identification of the components of the bestView ADF-4000 system
- Instructions on cleaning and maintaining the bestView ADF-4000.
- Appendices detailing projector-specific installation hardware and procedures.

1-3 **bestView** ADF-4000 REQUIREMENTS

In order to use bestView ADF-4000 system. The following equipments are required for proper functioning of the ADF-4000. You must need a polarized silver screen, circular polarizing passive 3D glasses, 3D projector, 3D player (computer or Blu-ray disk player) and 3D contents.

Please contact your A&D 3D representative for a list of approved vendors.

- 3D POLARIZATION PRESERVING SILVER SCREEN

You have to need a polarization preserving silver screen in order to enjoy 3D images designed for 3D projection. If your screen was not manufactured for 3D use, you might experience uncomfortable and blurry 3D images with high level of channel cross-talk. For the best quality of 3D images, A&D 3D recommends the high quality of silver screen ADS-120M. If you are interested in our premium 3D polarized silver screen runs on electrical rolling, Please contact us by e-mail (and3d@andkr.co.kr)

- DLP 3D-READY PROJRCOTOR

DLP 3D-Ready projector is must required for proper functioning of the bestView ADF-4000 system. If your projector was not DLP 3D-Ready, you would not able to enjoy the proper 3D images. ADF-4000 should not be used with projectors over 16,000 ANSI lumens.

- 3D GLASSES

Only circular polarized 3D glasses will work with bestView ADF-4000 presentation. The audience can not use just any kind of 3D glasses. The polarizing filters in the 3D glasses must match the polarization of the presentation for an optimum 3D effect of ADF-4000. The circular polarized 3D glasses (ADG-3200) will present best 3D effect with ADF-4000. ADG-3200 are available from A&D 3D Co., Ltd.

Please contact us by e-mail (and3d@andkr.co.kr)

- 3D BLU-RAY DISK PLAYER OR COMPUTER WITH 3D CONTENTS

Most 3D blu-ray disk players are compatible with the bestView ADF-4000 system. For 3D projection, a 3D blu-ray disk player (3D contents) or computer (windows vister or above) are required in order to play stereoscopic player.

2. DESCRIPTION OF ADF-4000

2-1 CHARACTERISTICS

QUALITY

High speed switching technology
Designed for high bright projectors with big size of aperture
High bright images with high bright effect of panel
Very low refresh time and channel cross-talk
No panel delay time

EFFICIENCY

Easy setup for use with suitable single-lens 3D projectors both mounting on the ceiling and desk-top setting.
3 years guarantee for Optical parts

COMFORTS

For use with lightweight 3D polarized glasses
Premium passive 3D glasses are available from A&D 3D Co., Ltd
10 pieces of ADG-3200 are bundled in the ADF-4000.

2-2 PACKAGE

- ① bestView ADF-4000 system
- ② Premium passive 3D glasses ADG-3200 (10 PCs)
- ③ Power adapter (AC 110~240V / DC 24V)
- ④ Power cable (AC 220V)
- ⑤ GPIO to BNC Cable



① bestView ADF-4000 시스템



② 3D glasses 10pcs



③ Power adapter

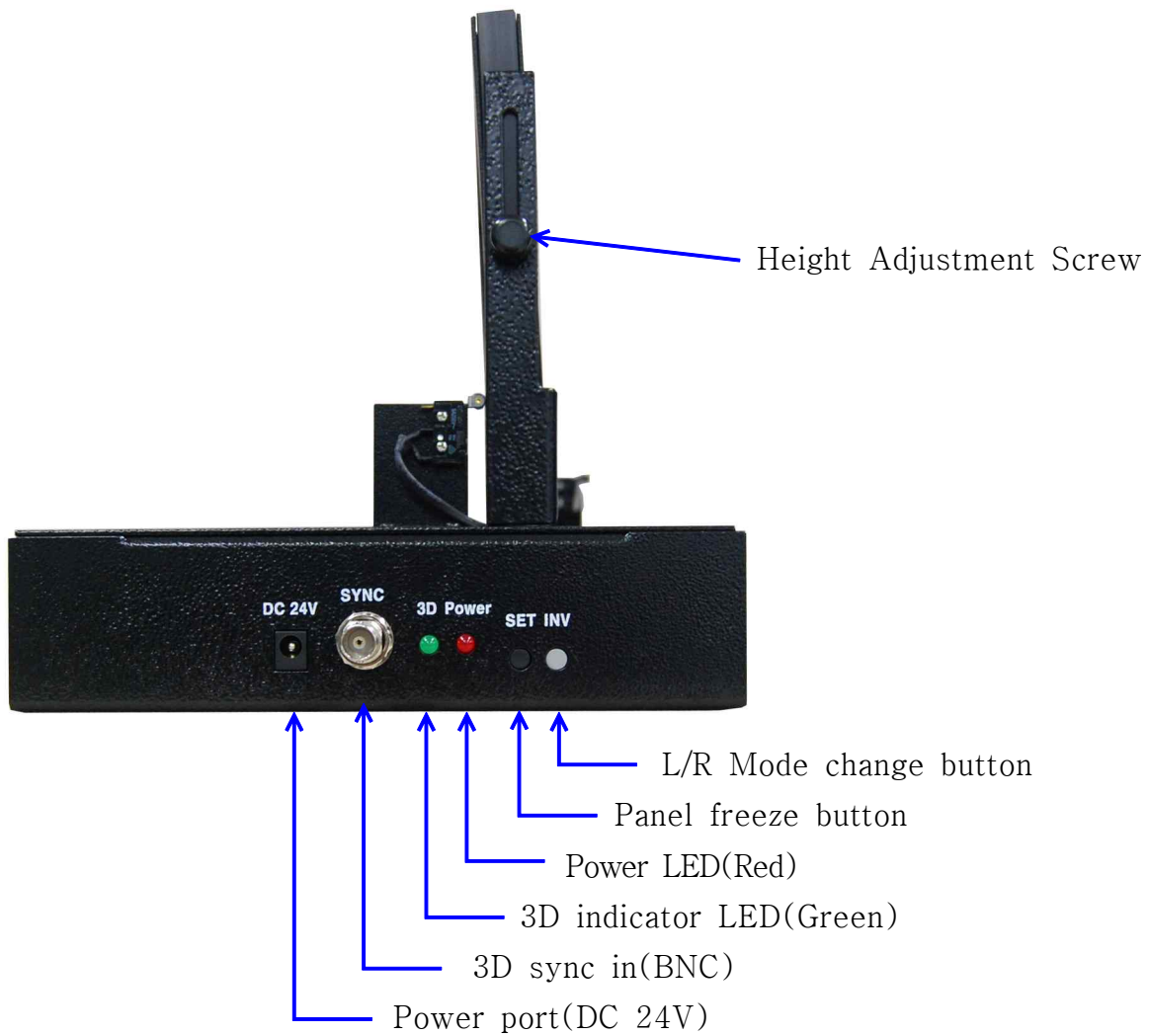
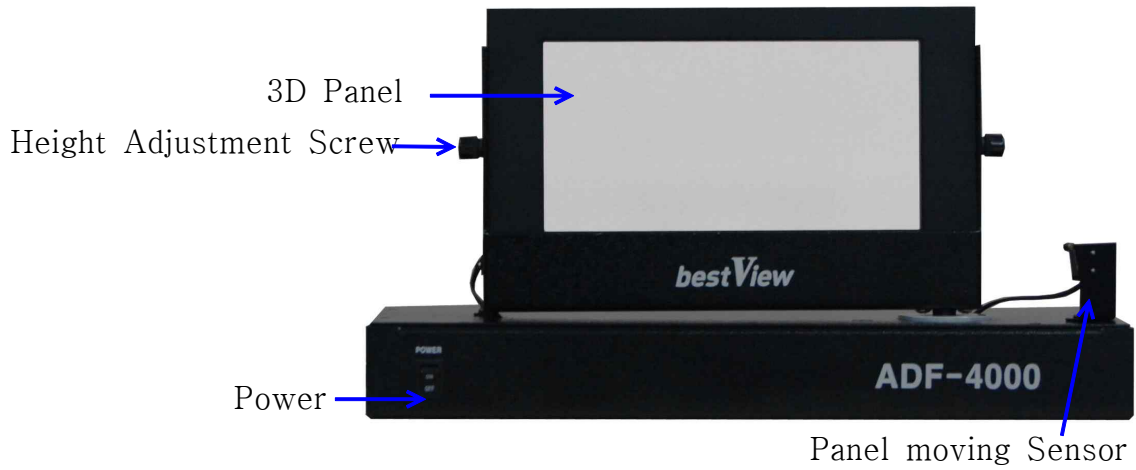


④ Power cable



⑤ GPIO to BNC Cable

2-3 DESCRIPTIONS



- 3D Panel : separator left and right images from each other
- Panel Moving sensor : Rotating panel stopper
- Power : On/Off 3D modulator
- Height Adjustment Screw : Adjust panel height
- L/R mode change button : left & right image switch button

If the 3D image sequences are diverted, press this L/R mode change button. It enables the conversion of L and R images sequences

- Panel freeze button : Even 2D source, panel don't move
- Power LED : When system is powered, red LED turns on
- 3D indicator LED : 3D mode indicator

When the 3D images or sync is properly connected, green LED turns on

- 3D sync in(BNC) : connecting 3D sync cable from 3D port of projector
- Power port(DV 24V) : connecting DC jack from adaptor

3. SETUP & OPERATIONS

3-1 PREPARATION BEFORE MOUNTING *bestView* ON THE PROJECTOR.

The procedure in this section will help installers to set up polarization modular on to projector and test 3D presentation.



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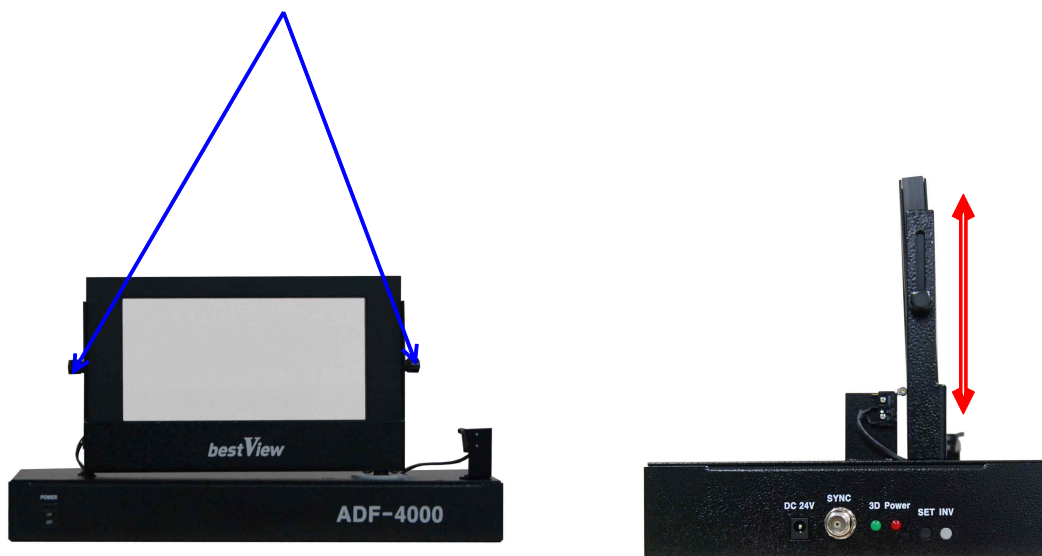


- Before going ahead with this installation, please carefully read the previous instructions.
- Prepare proper space for installing the system between the projector lens and polarization window of *bestView* ADF-4000.

3-1-1 HEIGHT ADJUSTMENT OF POLARIZATION WINDOW

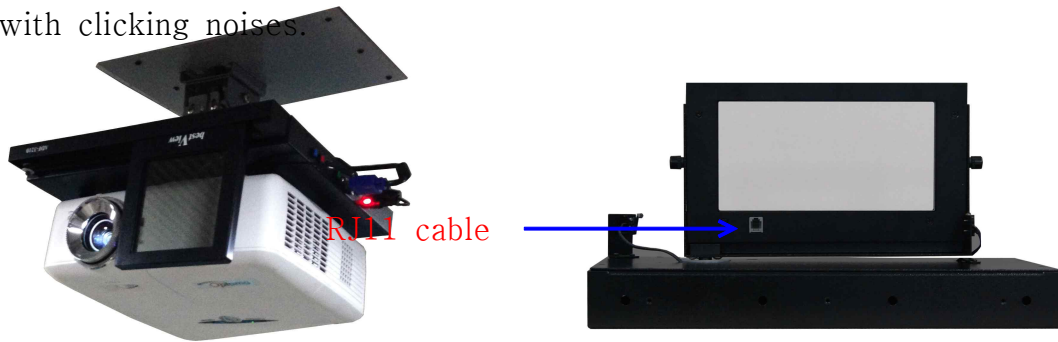
- Unscrew 2 pieces of height adjustment screws to the count clockwise two or three times.
- Adjust height of polarization window according to the height of projector lens.
- After adjust the height of polarization window, fasten the adjustment screws tightly

Height adjustment screw



3-1-2 CHECK THE PANEL DRIVE CABLE

In order to operate exactly, installers have to check the panel drive cable. The cable connects between terminal of panel drive signal out and polarization window panel. The cable connects tightly both sides with clicking noises.



3-1-3 DESKTOP SETTING

When installers set up projector and polarization modular on the desk, simply put the projector on the bestView ADF-4000.

In this case, the important thing is that the projector is located with proper distance from polarization window.



[Desktop setting]



[Ceiling mount]

3-1-4 CEILING MOUNT

When installers set up projector and bestView ADF-4000 on the ceiling, The bestView must be located in front of projector which mounted on the ceiling. The projector and bestView must be installed upside down.

3-2 CONNECTION

3-2-1 SYSTEM CONFIGURATION

System Configuration is like below.

3-2-1-1 Computer connecting system



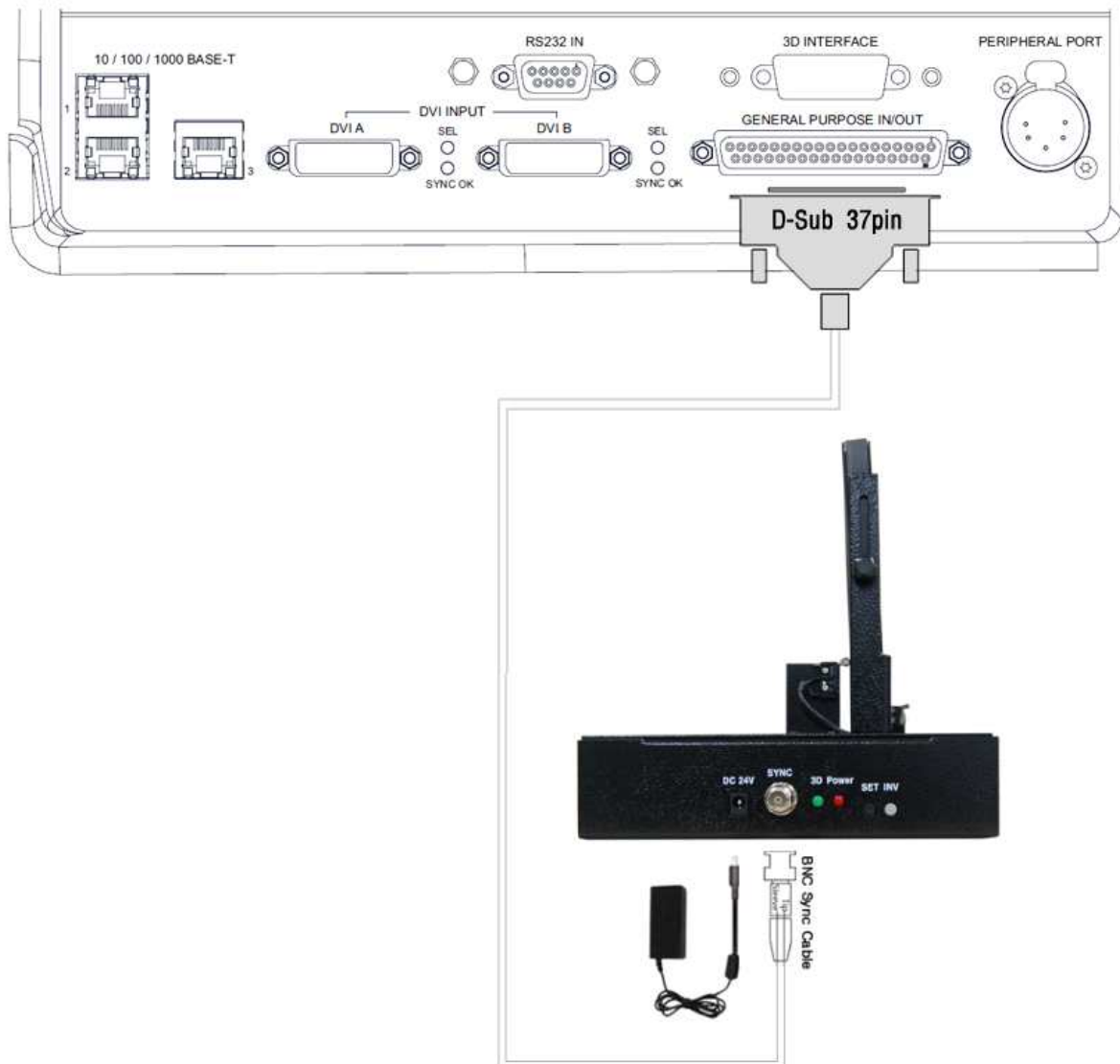
- ① Connecting cable between computer and projector.
- ② Connecting sync cable between projector and bestView.

3-2-1-2 Blu-ray disc player connecting system



- ① Connecting HDMI cable between blu-ray and 3D Projector
- ② Connecting Sync cable between Projector and bestView

3-2-2 CABLE CONNECTION



3-3 INSTALLATION

The 3D-filter of vestView ADF-4000 should be placed directly in front of the lens of the projector at a distance such that the image from the projector covers as much as possible the entire area of the 3D filter in order to minimize thermal heating effects. A distance of between 30mm and 60mm is normally recommended for this purpose.



[Proper distance]



[Short distance]



[Long distance]

3-4 STARTING & ENDING

3-4-1 SETTING

No deliberate adjustment is needed for standard use.

You have only to connect power source through DC(24V) adaptor from AC power supply and connect BNC sync cable between BNC port of vestView and GPIO port of projector. Then bestView ADF-4000 is all standby to operator 3D images presentation.

3-4-2 STARTING

The system is started as soon as it is turn switch on after connecting to a power source. Ensure the 3D-filter of bestView ADF-4000 is positioned directly in front of the lens of the projector and check the connecting of Sync cable between BNC port of vestView and GPIO port of projector. If you would play 3D images by computer or 3D blu-ray disc player, the bestView ADF-4000 will start right away synchronized with 3D images.

1. Set up the computer or blu-ray disc player and projector in waiting mode.
2. Check the Sync cable connection.
3. If 3D sync cable is in setting between projector and bestView, check connection of the 3D sync cable exactly.
4. Check panel drive cable of RJ-11 connection.
5. Check and insert power plug into power terminal. Then you will see the red LED on.
6. Start the 3D film from computer or 3D blu-ray disc player. If 3D image plays correctly, you can find the green LED on.
8. If L/R shows reverted on the projector, use the L/R mode change button(green) to correct the problem.

3-4-3 ENDING

1. If 3D image is stopped to play, bestView will stop operating 3D mode automatically.
2. Move 3D-filter away from the projector lens to operate 2D mode by itself.
3. Plug off the DC power adaptor or power off the AC power cord.

4. TROUBLE SHOOTING

ISSUE	CAUSE	RESOLUTION
Blurry picture, low contrast, "soft" image	• Projection lens is out of focus	• Focus projection lens
	• Fingerprints or other blemishes on projection lens or 3D-filter	• Clean projection lens and 3D-filter
Does not look 3D	• Improper projector parameters	• Use proper projector parameters
	• Sync cable is not connected between projector and ADF-4000	• Check the Sync cable connection
	• RJ-11 panel cable is not connected exactly	• Check the RJ11 cable connection
	• Power supply is not enough	• Check the connection of adaptor
Image is too dark	• Projector lamp has low output, or is set too low a setting or is not properly sized	• Change lamp setting and or change lamp
ADG-3200 3D-glasses are not working	• Computer is not sending signal correctly to projector	• Check and set the monitor frequency to 120Hz • Check the contents 3D or not
	• Sync cable is not connected between projector and ADF-4000	• Check the Sync cable connection
	• Power adaptor is not connected	• Check the connection of adaptor
	• RJ-11 panel cable is not connected exactly	• Check the RJ11 cable connection
I see 3D but it just looks wrong	• L/R signal was not correct	• push the L/R button
Flick in image	• Contents is not 3D	• Play the proper 3D contents
	• Projector is not working properly	• Check projector working in 120Hz
	• Projector is not set-up 3D mode	• Set-up projector in 3D mode
	• Windows version is low & older	• Check windows version OS version is required Windows Vister or above to play Stereoscopic-player
	• 3D contents is not 120Hz	• Check and set the monitor frequency to 120Hz

5. MAINTENANCE

A small amount of dust or dirt on 3D-filter(polarized panel) has minimal effect on image quality. Clean 3D-filter only when dust, dirt, oil or other marks are obvious. When doing so, clean the glass according to the instructions in the following sections : Never touch the optical surfaces with bare hands. 3D-filter is specially treated with an optical, anti-reflective coating. Always use a high-intensity flashlight to check 3D-filter for particles.

5-1 CLEANING DUST

Tools

- Canned air, Flashlight

Procedure

Use canned air to blow dust off 3D-filter.

Use high intensity flashlight to check for smudges.

5-2 FINGERPRINTS AND SMUDGES

Tools

- Micro-fiber cloth, Flashlight

Procedure

Remove fingerprints or smudges from 3D-filter by rubbing firmly with micro-fiber cloth using linear or circular motions.

Use high intensity flashlight to check for residue.

5-3 RESISTANT RESIDUE

Tools

- Micro-fiber cloth, anti-reflective glass lens cleaning solution, Flashlight

Procedure

Apply anti-reflection glass lens cleaning solution to micro-fiber cloth.

Use high intensity flashlight to check for streaking.

Use dry portion of micro-fiber cloth to remove streaking by rubbing gently in a circular motion.

5-4 IF YOUR **bestView** ADF-4000 SYSTEM DOES NOT WORK PROPERLY

Please don't disassemble and repair ADF-4000 system.

If operating errors occur abnormally, we will replace your product as the same new product.

6. TECHNICAL SPECIFICATIONS

SPECIFICATION	UNIT	DATA
Aperture	mm	205 X 105
Maximum power of projector	ANSI Lumen	under 16,000
Maximum switching speed	Frame	288
Optical light efficiency	%	39
Efficiency through glasses	%	17
Channel cross-talk	%	0.8
Panel refresh time (Dark time)	us	400
Switch delay time	us	0
Operating temperature	℃	0 to 60
Storage temperature	℃	-10 to 70
Operating Voltage	V DC	24

7. OTHERS

7-1 LED SIGNALS

Red LED : The system is powered but not synchronized

Green LED : signal of 3D synchronization (greater than 76Frame)

7-2 GUARANTEE

The bestView ADF-4000 is guaranteed to the original purchaser for 24 months according to Korean legislation. 3D-filter and cables should be returned in their original package along with the original proof of purchase. 3D-filter that are broken or scratched are not covered.

The bestView may become damaged if it is placed in front of the projector lens such that the image from the projector does not cover as much as possible the entire area of the polarization panel (see 3-3 INSTALLATION). Damage caused by placing the 3D-filter of bestView too close to the projector lens is not covered by guarantee.

A&D 3D will guarantee that faulty product will be made an exchange to new one with respect to use in working order within the term of warranty. If operating errors occur abnormally, please don't disassemble and repair ADF-4000 system. We will replace your product as the same new one within the term of warranty. If it would be post warranty, please send us the product as your convenient method. We will repair it and return to you.

7-3 IMPORTANT SAFETY RECOMMENDATIONS

In case of damage to the bestView ADF-4000 where the skin is exposed to liquid crystal material, we recommend that you immediately wash the area with soap and water. In case of eye exposure to liquid crystal material, please seek medical advice immediately.

7-4 MAINTENANCE OF THE **bestView** ADF-4000

- Protect all parts of the bestView system from direct sunlight, heat or water. Extreme conditions may alter the product's performance.
- Do not modify the electrical or mechanical components of bestView system. There is no user accessible part inside the bestView ADF-4000.
- Do not apply force to the panel of 3D-filter.
- Avoid all vibration and shock.

- Use a clean soft cloth when cleaning the panel of 3D-filter to avoid scratching, especially on the panel surface.
- Always transport the bestView system in a rigid case to avoid scratching the panel and to prevent system body from breaking.
- Do not expose the bestView ADF-4000 system to water.

7-5 CUSTOMER SUPPORT CENTER

Technical support : www.bestviewssystem.com www.andkr.co.kr

Sales support : sylee5205@andkr.co.kr and3d@andkr.co.kr