

**SDC-12/SDC-15** 1080p D-ILA 3D Front Projector 2013 Addendum

**2013 NEW FEATURES ADDENDUM**



SDC-12 aka the "GrayWolf 4K"

### **ABOUT THIS MANUAL ADDENDUM**

This 2013 Manual Addendum is designed for use with the Wolf Cinema SDC-12 and SDC-15 Home Cinema Projectors. This document is intended to accompany and augment the original User's Manual for this product.

Information in this document has been carefully checked for accuracy; however, no guarantee is given to the correctness of the contents. The information and specifications in this document are subject to change without notice.

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The lightning flash with arrow head within an equilateral triangle is intended to alert the user to the presence of “dangerous voltage” within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. DANGEROUS HIGH VOLTAGES ARE PRESENT INSIDE THE ENCLOSURE. DO NOT OPEN THE CABINET. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

# SDC-12/SDC-15 1080p D-ILA 3D Front Projector 2013 Addendum

## Notices



**WARNING!** To meet FCC requirements, a shielded power cord is recommended in order to prevent interference. It is essential that only the supplied power cord is to be used. Use only shielded cables to connect I/O devices to this equipment. You are cautioned that changes or modifications not approved by the party responsible for compliance could void your authority to operate the equipment.



**WARNING!** High-brightness light source. Do not stare into the beam of light, or view directly. Be especially careful and ensure that children do not stare directly into the beam of light.



**WARNING!** To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.



**CAUTION!** For minimal servicing and to maintain high image quality, we recommend that you use the projector in an environment that is smoke and dust free. When used in areas where there is a lot of smoke or dust, the filter and lens should be cleaned often to lengthen the service life of the projector.



**WARNING!** IC chips or other technologies in the product include confidential and/or trade secret property belonging to either Wolf Cinema or the Victor Company of Japan (JVC). Therefore you may not copy, modify, adapt, translate, distribute, reverse engineer, reverse assemble or decompile the contents thereof.



**WARNING!** The ventilation slots and objects next to them may get extremely hot during operation. Do not touch these areas until they have sufficiently cooled down.



**DISPOSAL** Do not use household or municipal waste collection services for disposal of electrical and electronic equipment. EU countries require the use of separate recycling collection services.

**CAUTION –** Review all important safeguards, operating and installation instructions as provided in the accompanying “WOLF CINEMA USER’S GUIDE” prior to using this product.

Thank you for purchasing the Wolf Cinema SDC-12 or SDC-15 – next-generation stereoscopic (3D) home cinema projectors.

Starting in January, 2013 the SDC-12 and SDC-15 projectors will incorporate the following new features and upgrades, which are described in further detail in this User's Manual Addendum:

- **V4K™ technology** – an advanced 4K imaging process that converts standard HD sources into 3840 x 2160 on-screen resolution
- **2D->3D adaptive imaging** – new video processing algorithms that can render, in real time, 3D imaging from 2D sources
- **Adjustable 3D parallax and crosstalk cancellation** – provides for improved stereoscopic [3D] imaging, reduced “ghosting” artifacts and results in a more natural 3D image
- **VariScope™ lens memories** – multiple primary optics presets so that your favorite aspect ratios [i.e. 1.78:1, 1.85:1, 2.35:1 and more] can be instantly recalled without the need for an external anamorphic lens [Full anamorphic lens support is also included]
- **Advanced multi-zone pixel convergence** – 1/16th pixel, 121 zone adjustment
- **Advanced screen surface compensation driver** – 255 memories

Please review this document to discover the details regarding these important feature enhancements, and contact your local Wolf Cinema dealer for further information [or contact Wolf Cinema directly at 1.510.843.4500].

We hope you enjoy your Wolf Cinema home theater experience.

# SDC-12/SDC-15 1080p D-ILA 3D Front Projector 2013 Addendum

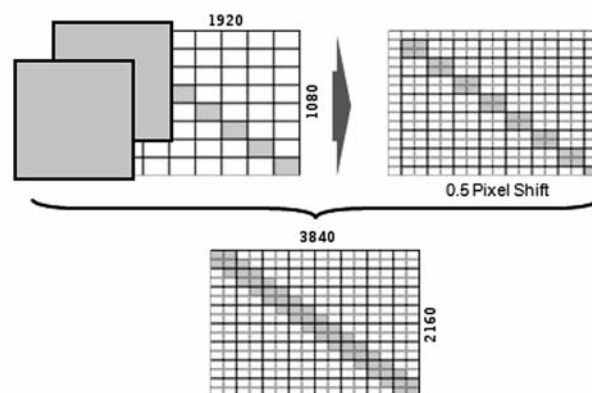
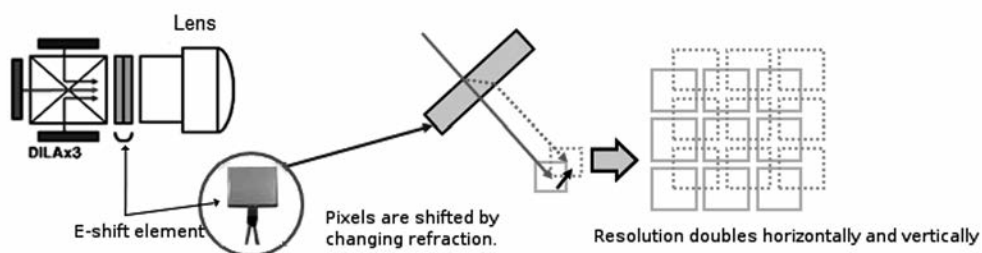
## Features & Updates

### V4K™ Enhanced Resolution [3840 x 2160]

#### Wolf Cinema's V4K™ Technology

Originally developed by Japan's NHK Engineering and the Victor Company of Japan [JVC] and also called “e-shift” in other devices, this unique technology implementation by Wolf Cinema delivers an HD image with **4 times the pixel density** of standard 1920 x 1080 sources.

The original 1080p signal is first processed with an advanced imaging algorithm to improve edge transitions, eliminate aliasing and stair-stepping, and increase contrast within each video frame. Each frame is then temporally separated into two sub-frames [at 1920 x 1080 pixels each] and projected through the D-ILA engine and the V4K™ processing panel. This panel utilizes a property of liquid crystals called bi-refringence and can rapidly switch between straight light and refracted light by 0.5 pixel, shifted both vertically and horizontally. New “sub pixels” are thus generated based on this process and a true 3840 x 2160 video frame is created. Amazingly this process has no moving parts and results in a smooth, film-like image with minimal visible pixel structure.



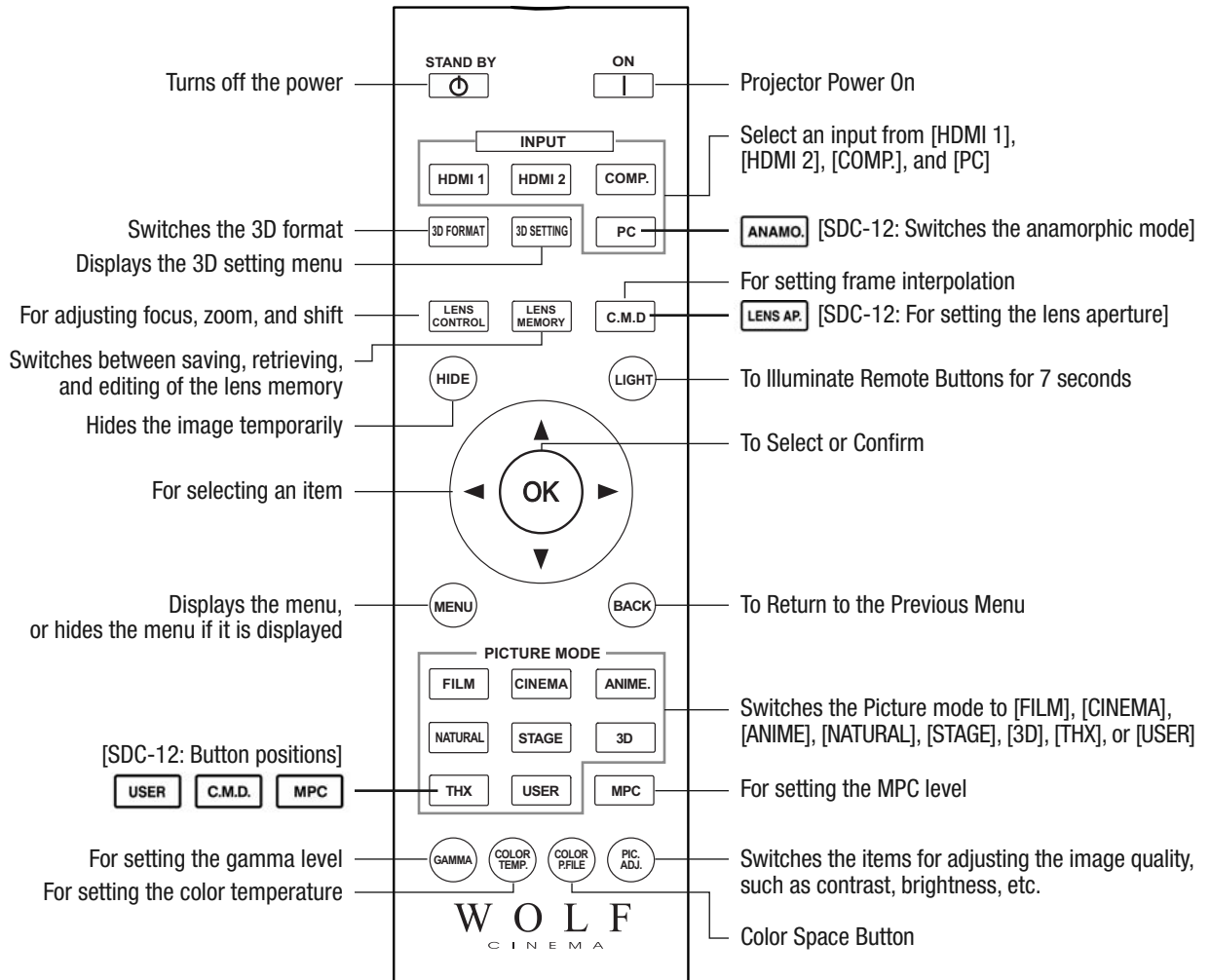
Depending on the projector model, you may be able to turn the V4K™ processor on and off via the following remote control commands: Press the [OK] key, then in sequence [RIGHT] / [LEFT] / [RIGHT] / [LEFT]. A small window will appear in the upper right hand corner of the screen, indicating the V4K processor is ON. Simply depress the [RIGHT] key to turn the V4K processor to the OFF mode. Depress the [RIGHT] key again to turn it back on. Insure that you have the V4K engine turned ON, then select the [BACK] or [MENU] button to end this demonstration.

**Note:** This V4K demonstration feature is only possible when watching 2D content.

*Images and technology descriptions courtesy of the Victor Company of Japan [JVC]*

## Remote Control

Your SDC-12 or SDC-15 projector remote controls have been modified to incorporate the following features:



## 3D Format and Settings

For additional information about 3D viewing refer to the SDC-12 and SDC-15 2013 User's Manual. (Reference pages: 56 and 62-64)

**3D Format** This control selects the 3D input signal format. Use the [LEFT] and [RIGHT] keys to configure the desired settings. Press the [OK] key to display the available settings list, then use the [UP]/[DOWN] keys to make your selection. The [BACK] key returns you to the previous screen.

(\*) Some signals may not be embedded with 3D information, thus the image projected may revert to 2D.

Reconfigure such selections manually.

*Settings: Auto, Side by Side, Top & Bottom, 2D*

**Auto** 3D formats are determined automatically.

**Side by Side** Select this if the 3D input signal is the side by side method.

**Top and Bottom** Select this if the 3D signal is the top and bottom method.

**2D** Projected as a 2D signal.

**2D/3D** This feature converts current 2D images into a quasi-3D video image. This effect may not be visible with certain content.

**On** Select to convert 2D video images to 3D

**Off** Select to NOT convert 2D images into 3D

**Parallax** This function enables fine adjustment of any misalignment of the left and right 3D video images. Adjust these settings to your preference by using the [LEFT]/[RIGHT] keys. Press the [OK] key to display the adjustment window. The [BACK] key returns you to the previous screen.

(\*) Cannot be adjusted when the "2D/3D" feature is ON.

*Settings: -15~15*

**Crosstalk Cancel** This reduces cross-talk within 3D image content. Adjust these settings to your preference by using the [LEFT]/[RIGHT] keys. Press the [OK] key to display the adjustment window. The [BACK] key returns you to the previous screen.

(\*) May be adjusted during 3D playback but not when the "2D/3D" feature is ON.

**White** *Settings: -8~8*

**Red** *Settings: -8~8*

**Green** *Settings: -8~8*

**Blue** *Settings: -8~8*

**Intensity** This function adjust for image depth perception. Adjust these settings to your preference by using the [LEFT]/[RIGHT] keys. Press the [OK] key to display the adjustment window. The [BACK] key returns you to the previous screen.

(\*) May be adjusted when the "2D/3D" feature is ON.

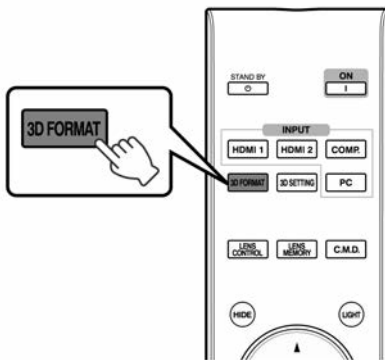
*Settings: 1~5*

**Sub Title Adjust** Select this to automatically identify subtitles and set 3D conversion to On or OFF. Adjust settings to your preference.

(\*) May be adjusted when the "2D/3D" feature is ON.

(\*) There may be instances where automatic identification does not work, or certain images are identified as subtitles. Use the [LEFT]/[RIGHT] keys to configure your desired settings. Press the [OK] key to display the settings list, then use the [UP]/[DOWN] keys to make your selections. The [BACK] key returns you to the previous screen.

*Settings: On, Off*



If the image does not switch to 3D automatically, press the **3D FORMAT** button on the remote control

## Viewing 3D Movies

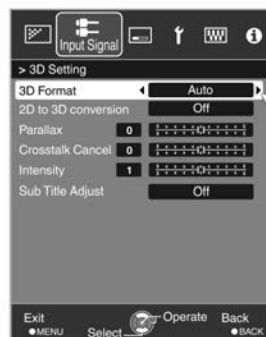
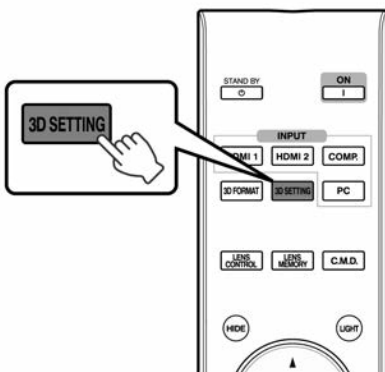
**1** Connect the 3D emitter as shown in SDC-12/SDC-15 user's manual  
(Reference page: 30 of the SDC-12/SDC-15 2013 User's Manual)

**2** Connect this unit to a 3D-compatible HDMI device, and turn on the power to play back the 3D video image

- For details on how to play back 3D video images, please refer to the instruction manual of the player or recorder in use.
- When 3D signals are received, the video image switches automatically to the 3D format.
- This unit supports the following 3D formats:
  - Frame packing
  - Side-by-side
  - Top-and-bottom
- In the default setting, "3D Format" is set to "Auto" for automatic projection of 3D images.
- Pressing the **3D FORMAT** button each time switches the mode in the following sequence: "Auto" → "Side by Side" → "Top and Bottom" → "2D" → "Auto"...

**3** Turn on the power of the 3D GLASSES (if required) and put them on

Format	Description
Auto	The format is detected and configured automatically.
Side by Side	Select this setting if the 3D input signal is of the side-by-side format.
Top and Bottom	Select this setting if the 3D input signal is of the topandbottom format.
2D	Select this setting if 2D images are falsely recognized as 3D ones.



## Converting 2D Movies to 3D Movies for Viewing

- 1** Press the **3D SETTING** button to display "3D Setting"
- 2** Select "2D to 3D conversion" followed by "On", and press the **OK** button
- 3** Press the **MENU** button to exit

**Note:** Depending on the movies, 3D effect may be less than what you expected.



## Adjusting 3D Movies

3D video images may appear differently to different viewers. It may also be affected by your physical condition at the time of viewing.

You are therefore recommended to adjust the video images accordingly.

### 1 Press the button to display “3D Setting”

#### Adjusting parallax (Parallax)

Adjust the displacement of the image for the left and right eyes separately to obtain the best 3D effect.

- To do so, use the ◀ ▶ keys to move the cursor.
- Setting range: 15 to +15

#### Adjusting crosstalk (Crosstalk Cancel)

Double images (overlapping of the left image with the one on the right or vice versa) can be reduced to deliver a clear quality.

- To do so, use the ◀ ▶ keys to move the cursor.
- Setting range: 8 to +8

\* Adjustment cannot be made when “2D to 3D conversion” is set to “On”.

#### Adjust the depth perception (Intensity)

The depth of the image can be adjusted to deliver the best 3D effect during 2D-3D image conversion.

- To do so, use the ◀ ▶ keys to move the cursor.
- Setting range: 1 to 5

\* Adjustment can only be made when “2D to 3D conversion” is set to “On”.

**Note:** Depending on the movies, 3D effect may be less than what you expected.

#### Adjusting the subtitle display (Sub Title Adjust)

If distortion occurs in the subtitle during 2D-3D image conversion, set to “On”.

\* Adjustment can only be made when “2D to 3D conversion” is set to “On”.

### 2 Press the button to exit

## Setting Other Aspect Ratios (Basic, with Anamorphic Lenses, etc.)

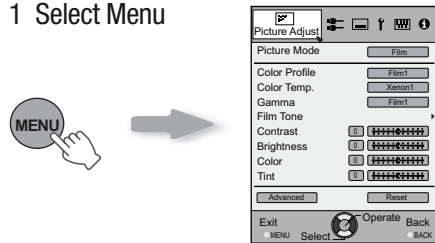
### Image Sizing and Aspect Ratio (Reference page: 38 of the SDC-12/SDC-15 2013 User's Manual)

You can quickly change the screen size (aspect ratio) of the projected image, or mask image borders as desired if the surrounding edges of the image area are distorted.

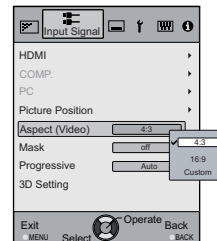
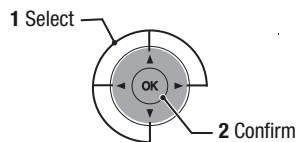
### Setting the Basic Screen Size (Aspect Ratio)

The projected image can be set to a desired screen size and aspect ratio.

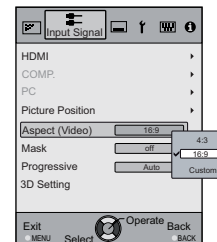
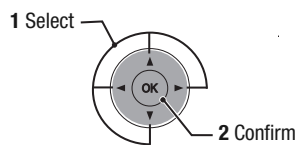
#### 1 Select Menu



#### 2 Select "Input Signal" → "Aspect [Video]"



#### 3 Set a Aspect Value



## Lens Control and VariScope™ Lens Memory

### Lens Control

Use this remote button to adjust focus, zoom and shift. You can also turn the test pattern display ON and OFF and then save your lens position settings during adjustment. Use the UP/DOWN keys to select an item to adjust. Press the [BACK] key to return to the previous screen.

- Focus** This selection adjusts the image focus.
- Zoom** This selection adjusts the image overall size.
- Shift** This selection enables you to move the image UP/DOWN/LEFT or RIGHT, using the center rosette.

**Image Pattern** A test pattern for your use when adjusting focus, zoom and shift.

- On** During adjustment, the test pattern is displayed.
- Off** During adjustment, the external input signal is displayed [without the test pattern].

**Lock** This locks out or enables use of the lens controls.

- On** This effectively locks out the “LENS” functions on the remote control.
- Off** This enables the “LENS” functions on the remote control.

### VariScope™ Lens Memory

**Select** This menu function [and via direct IR remote control button] recalls previously saved lens adjustment memories. This is used to toggle between the primary lens VariScope™ aspect ratio memories, i.e. 1.78:1, 1.85:1, 2.35:1 and so forth [as created by you or your custom installer].

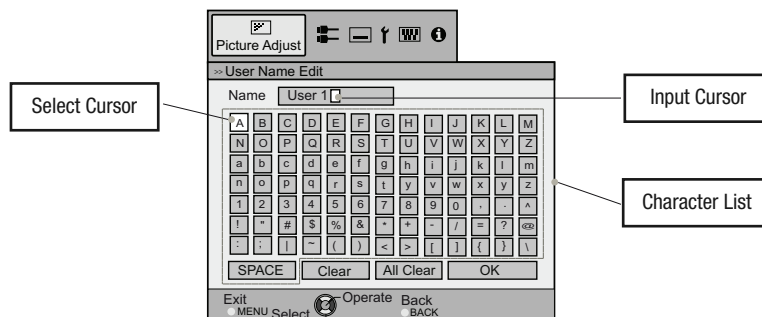
**Save** This saves all focus, zoom and shift settings work into one of three available memories [the user memories can be renamed].

**Name Edit** Edit and change the lens memory / aspect ratio names.  
(\* Number of characters is limited to 10, and may include capital and lower case letters, numbers and symbols.

- Select the user memory name you wish to edit.
- Press the [OK] button on the main unit or the remote control to confirm and enter the edit mode.
- (\* A “-“ is displayed if the information is not saved.
- (\* Press the [BACK] key on the main unit or remote control at anytime to exit the edit mode. Doing this will delete your modifications.

**Input Cursor** This highlights the edit area. The cursor will move automatically as you enter characters.

**Select Cursor** Move the cursor using the [UP], [DOWN], [LEFT] and [RIGHT] keys on the projector or on the remote control. Select the letter to enter and press the [OK] button. Make the next letter, number or symbol selection and press [OK].



- Clear**                    Use this to delete a character. Move the select cursor to the desired location and press the [OK] button. This will delete the character in the Name field.
- All Clear**             Use this to delete ALL characters. Move the select cursor to the desired location and press the [OK] button. A delete confirmation message will appear.
- OK**                      Use this function to save the entered name information. Select [OK] and a saved confirmation message will appear.

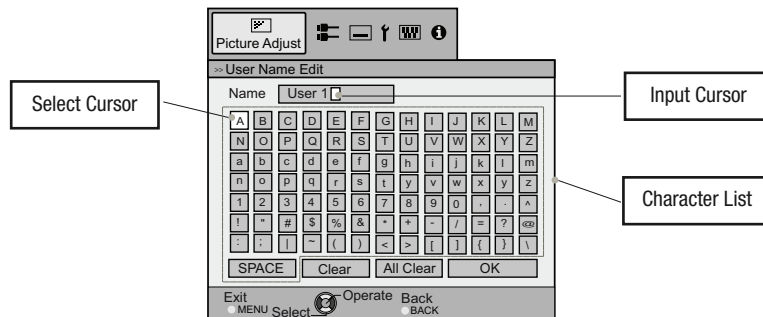
## Picture Modes and User Name Edit

**Picture Modes** (Reference page: 49 of the SDC-12/SDC-15 2013 User's Manual)

**Note:** The major change from last year's remote control is that the USER 1 and USER 2 direct access buttons are now combined into the one USER button, which toggles through the FIVE available user setting memories: User 1 [WOLF FACTORY CALIBRATIONS], User 2, User 3, User 4 and User 5. Adjust and save your image quality as desired. Last adjustments are saved automatically. You may change the user names anytime using the USER NAME EDIT feature.

### User Name Edit

You can rename any Picture Mode memory bank, as below. The total number of characters is limited to 10, and may include capital and lower case letters, numbers and symbols.



- User 1-5**                Select the user memory name you wish to edit.  
Press the [OK] button on the main unit or the remote control to confirm and enter the edit mode.  
(\* Press the [BACK] key on the main unit or remote control at anytime to exit the edit mode. Doing this will delete your modifications.
- Input Cursor**           This highlights the edit area. The cursor will move automatically as you enter characters.
- Select Cursor**         Select and move the cursor using the [UP], [DOWN], [LEFT] and [RIGHT] keys on the projector or on the remote control. Select the letter to enter and press the [OK] button. Make the next letter, number or symbol selection and press [OK].
- Clear**                    Use this to delete a character. Move the select cursor to the desired location and press the [OK] button. This will delete the character in the Name field.
- All Clear**             Use this to delete ALL characters. Move the select cursor to the desired location and press the [OK] button. A delete confirmation message will appear.
- OK**                      Use this function to save the entered name information. Select [OK] and a saved confirmation message will appear.

## Pixel Alignment and Fine Adjustment

Use this section to adjust, fine tune any slight errors in the horizontal/vertical pixel alignment. It is found under the [INSTALLATION] menu tab.

**Adjust** Select this function to turn the pixel alignment function ON and OFF.  
*Settings: Off, On*

**Adjust Area** Use this function to set the overall pixel adjustment range.  
*Settings: Whole, Zone*

**Whole** Selects the entire screen as the adjustment area.

**Zone** The screen is divided into 11 x 11 sections for fine adjustment

(\*) Note the size of the individual zones cannot be changed

**Adjust Color** This function selects the color of the pixels you want to adjust.  
*Settings: Red, Blue*

## Adjust

**Pattern Color** This function sets the pattern color.  
*Settings: White, Green + [Adjust Color]*

**White** Sets the adjustment pattern to white.

**Green +** Sets the pattern to green and the color set using the [Adjust Color] items.

[Adjust Color]

**Adjust [Pixel]** Use this to move the color selected previously [Adjust Color], pixel by pixel in the vertical and horizontal directions.  
(\* This function is disabled with the [Adjust Area] is set to [Zone]  
*H (Horizontal) Settings: -2~2*  
*V (Vertical) Settings: -2~2*

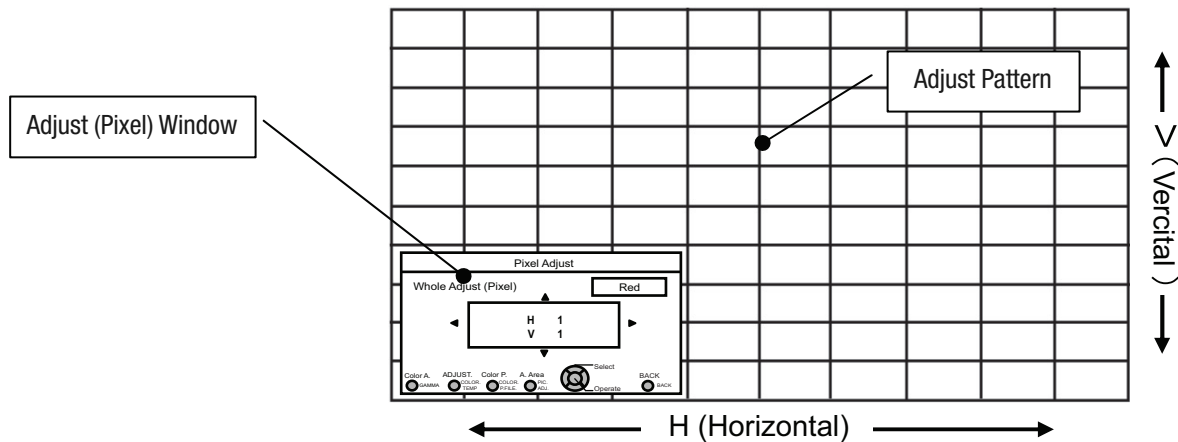
**Adjust [Fine]** Use this to move the color selected previously [Adjust Color], pixel by pixel in the vertical and horizontal directions.  
*H (Horizontal) Settings: -31~31*  
*V (Vertical) Settings: -31~31*

**Reset** Returns all settings to the original default factory settings.

## Pixel Alignment and Fine Adjustment *Continued*

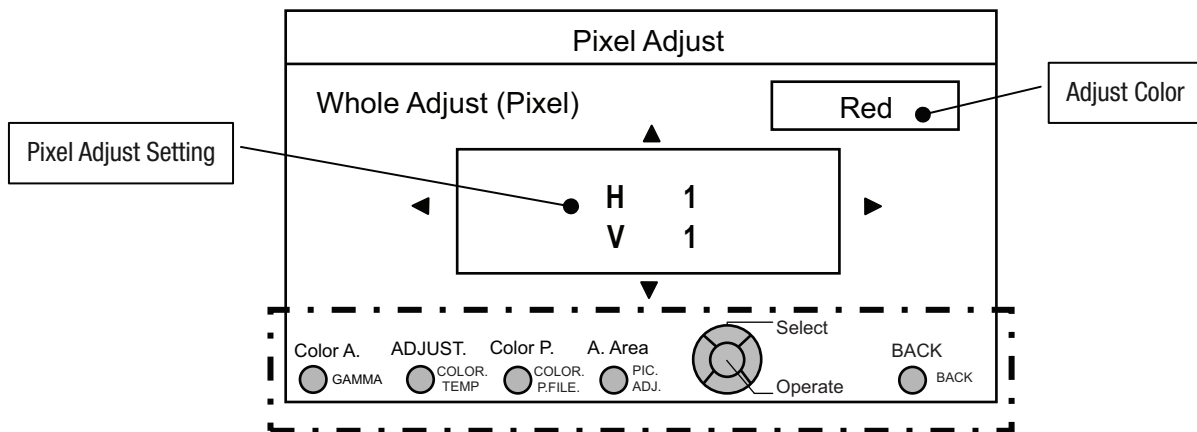
The following steps are useful when re-aligning the projector's visible pixel structure:

Enter the [PIXEL ADJUST] menu off the [INSTALLATION] tab. First set the [ADJUST AREA] to [WHOLE] and make your initial general wholesale adjustments to the image alignment. Select [ADJUST COLOR] and [ADJUST PATTERN]. Move the cursor to [Adjust (Pixel)] then press the [OK] button to display the pattern and adjustment window.



Press the [OK] button to enter the adjustment mode. Use the [UP], [DOWN], [LEFT] and [RIGHT] keys to align the pixels in both the horizontal and vertical directions. Select the [BACK] key to exit this adjustment mode.

**Note:** The operational window and the small remote control indicators, when you are in the pixel adjustment mode, certain remote control buttons serve as dual use/dual function buttons.



## Pixel Alignment and Fine Adjustment *Continued*

### REMOTE CONTROL DUAL USE BUTTONS

Use the [GAMMA] button to select [ADJUST COLOR], i.e. red or blue pixels

Use the [COLOR TEMP] button to change from the [ADJUST PIXEL] to the [ADJUST FINE] operational windows.

Use the [COLOR P.FILE] button to select [ADJUST PATTERN COLOR], i.e. white, green +.

Use the [PIC ADJUST] button to change from [ADJUST WHOLE AREA] to [ADJUST ZONE]

Use the [BACK] button to stop pixel alignment and exit this mode.

After making overall large scale window adjustments, proceed to fine-tuning. Press the [COLOR TEMP] button on the remote to change from [ADJUST (PIXEL)] to [ADJUST (FINE)] operational windows. Or from the main menu, set the [ADJUST AREA] to [ALL] and select [ADJUST COLOR] and [ADJUST PATTERN], then move the cursor to [ADJUST (FINE)] and press the [OK] button, which will display the pattern and fine tuning operational window. Adjust the horizontal/vertical pixel structure as required. Maximum deviation here is -31~31.

Next, set the [ADJUST AREA] to [ZONE] to make independent zone fine adjustments. There will be 11x11 smaller sections that can be independently adjusted. For quick access to this menu press the [PIC ADJUST] button on the remote.

Use the [UP], [DOWN], [LEFT] and [RIGHT] keys to move the cursor to the position you want to adjust. Press the [OK] button to enter the operation mode. Then use the [UP], [DOWN], [LEFT] and [RIGHT] keys to move and adjust the pixels within that zone, in the horizontal and vertical directions. Press the [BACK] key to return to the previous screen or exit the alignment window.

### Notes on pixel alignment:

- (\*) It is impossible to match all image pixels on the screen. Due to properties inherent to D-ILA technology, there will always be some gaps and overlapping structure. Color errors may also result from screen type used and on-axis/off-axis viewing positions.
- (\*) In case the image is reversed, or upside-down, the horizontal and vertical directions are reversed.
- (\*) Please perform adjustments on a clear, still image.
- (\*) When fine tuning, the effects of adjustments may be limited and perhaps difficult to see on certain image types.

## Fine Adjustment to Color (Color Management)

If CMS is made available in your projector, you can adjust each of the following colors according to your preference: Red, Orange, Yellow, Green, Cyan, Blue, and Magenta.

**1** Press the **MENU** button to display the menu

**2** Select “Picture Adjust” → “Advanced” → “Color Management” from the menu

**3** Adjust to the preferred color

**1** A Select the item to set (Custom 1 to Custom 3), and press the **OK** button

**2** Select “Pause” and press the **OK** button to set the background for the current adjustment

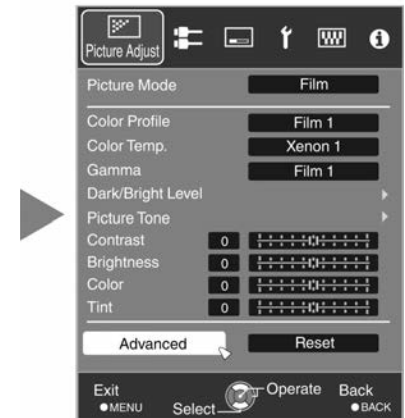
- While adjustment is in progress, the input image is displayed as the background.
- “On”: pauses when inputting the video images.
- “Off”: does not pause when inputting the video images.

**3** Select “Color Selection”, and press the H I keys to select the color to adjust

- For color adjustment, select the color from the following: “Red”, “Orange”, “Yellow”, “Green”, “Cyan”, “Blue”, “Magenta”.
- Pressing the **HIDE** button enables you to check the image before adjustment.

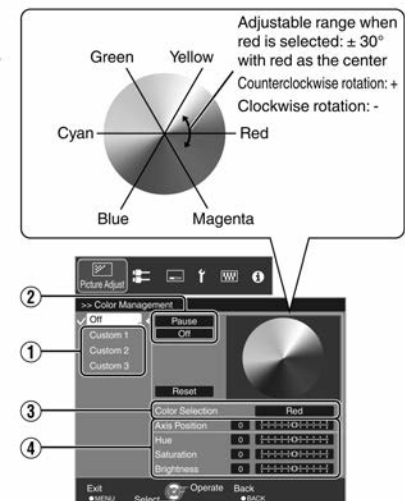
**4** Adjust the selected color

- Selecting “Reset” resets all the adjustment data.



Item	Setting Range	Description
Axis Position	-30 to 30	Finetune the position of the central axis of the selected color
Hue	-30 to 30	Adjusts the hue (colortone)
Saturation	-30 to 30	Adjusts the color saturation (vividness) -30 (dull) to +30 (vivid)
Brightness	-30 to 30	Adjusts the brightness -30 (dark) to +30 (bright)

**4** Press the **MENU** button to exit







## Setting Screen Correction

By selecting the optimal correction mode according to the characteristics of the screen in use, corrections can be performed to reproduce natural images with balanced colors.

- For SDC-12 and SDC-15 projectors, this function is deactivated when “Color Profile” is set to “Off”.

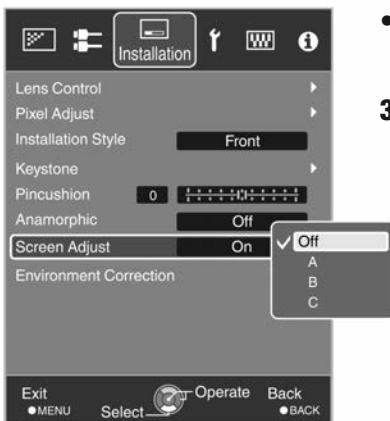
**1** Press the **MENU** button to display the menu

**2** Select “Installation” → “Screen Adjust” → “On” from the menu

- SDC-15: select one from the 105 types (“1” to “105”).
- SDC-12 : select one from the three types (“A”, “B”, or “C”).

- For information on the screen and the corresponding correction mode, please Contact your dealer or Wolf Cinema.

**3** Press the **MENU** button to exit



## Adjusting Movies for Increased Expressiveness (MPC - Multiple Pixel Control)

The new image processing algorithm helps to create a natural impression that is sharper at areas in focus, and softer at areas that are not in focus. This enables you to enjoy highly expressive V4K images with a greater sense of depth.

- 1 Press the **MPC** button to display the adjustment menu
- 2 Select “V4K Profile” and press the **OK** button to select the content type you are viewing

\* HD is the abbreviation for High Definition.

\* SD is the abbreviation for Standard Definition.

- Select “SD” when viewing works broadcasted in the SD image quality.

Content Type	Description
FILM	For viewing movies on Bluray disc produced using films
High Resolution	For viewing Bluray Disc content
HD	For viewing TV broadcasting and recorded content
SD	For viewing DVD content
Dynamic	For enhanced effects
Off	For displaying in the original resolution (2K)

- 3 Press the **MENU** button to exit

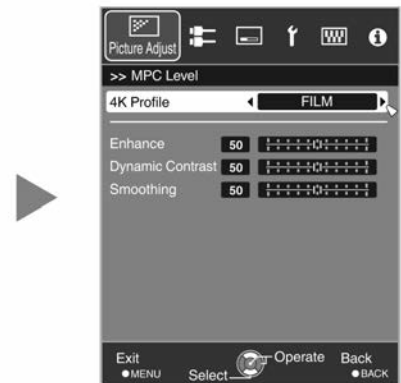
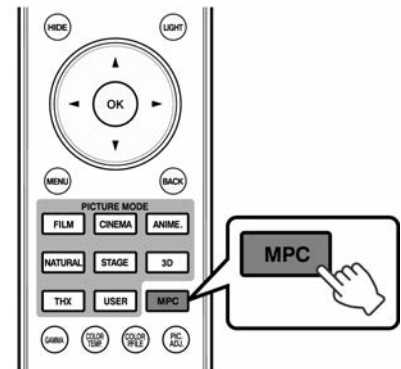
### Fine Tuning

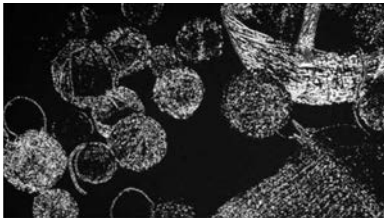
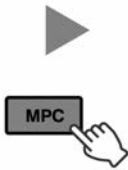
After selecting a content type, adjust “Enhance”, “Dynamic Contrast”, and “Smoothing” according to your preference.

- By increasing the setting range, you can expect enhanced effects
- Images are displayed in the original resolution (2K) when “V4K Profile” is set to “Off”
- “Enhance”, “Dynamic Contrast”, and “Smoothing” can be adjusted even when “V4K Profile” is set to “Off”

\* MPC is the abbreviation for Multiple Pixel Control

Item	Setting Range	Description
Enhance	0 to 100	Enhances the sharpness of the image
Dynamic Contrast	0 to 100	Enhances the contrast of the image
Smoothing	0 to 100	Enhances the blurriness of the image for a softer effect





## Adjusting Movies for Increased Expressiveness (MPC) *Continued*

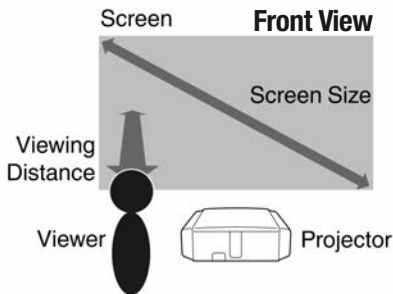
### About the analysis screen

By press the **MPC** button while the adjustment menu in the step 1 is on screen, the analysis screen is displayed.

In the analysis screen, parts where the effect appear are highlighted in colors when “Enhance”, “Dynamic Contrast”, and “Smoothing” are adjusted.

- To display the adjustment menu, operate any of the keys while the analysis screen is displayed.
- No adjustment can be made while the analysis screen is displayed. Make adjustments after returning to the adjustment screen.

Highlighted Color	Adjustment Resulting in Effects
Blue, green	Enhance
Red, yellow	Dynamic Contrast
Black	Smoothing



## Adjusting Image Quality Automatically According to the Viewing Environment

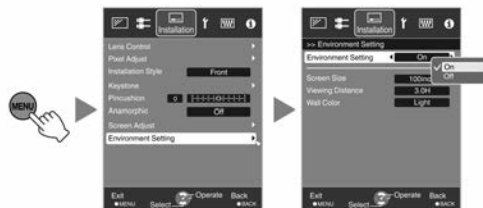
By configuring “Environment Setting” according to the viewing environment, image quality adjustment and correction according to environmental differences are performed automatically to minimize any influence on the image quality.

**Note:** “Environment Setting” is applied separately from the individual image adjustment settings. (Reference page: 49 in the SDC-12/SDC-15 User’s Manual)

**1** Press the **MENU** button to display the menu

**2** Select “Installation” → “Environment Setting” → “On” from the menu

- When “Environment Setting” is set to “Off”, “Screen Size”, “Viewing Distance”, and “Wall Color” are grayed out and cannot be selected.



**3** Select “Screen Size” to configure the screen size to use

- Select the closest screen size setting from the range between “60inch” and “200inch” (in 10inch increments).

#### 4 Select “Viewing Distance” to configure the viewing distance (distance to the screen)

- Select the closest viewing distance setting from the range between “1 m” and “10 m”.
- For more details on the height, please refer to “Screen Size and Projection Distance”. (Reference page: 25 of the 2013 User’s Manual)

#### 5 Select “Wall Color” to configure the wall color

- If the wall is black in color, select “Dark”. For walls with a color other than black, select “Light”.

#### 6 Press the button to exit

### Remote Control Code

Hexadecimal code is sent during communication

Remote Control Button Name	Hexadecimal Code
▲	37 33 30 31
▼	37 33 30 32
BACK	37 33 30 33
ON	37 33 30 35
STAND BY	37 33 30 36
HIDE	37 33 31 44
LENS.AP.	37 33 32 30
MENU	37 33 32 45
OK	37 33 32 46
LENS CONTROL	37 33 33 30
▶	37 33 33 34
◀	37 33 33 36
PC	37 33 34 36
COMP.	37 33 34 44
ANIME	37 33 36 36
STAGE	37 33 36 37
CINEMA	37 33 36 38
FILM	37 33 36 39

Remote Control Button Name	Hexadecimal Code
NATURAL	37 33 36 41
USER	37 33 44 37
THX	37 33 36 46
HDMI 1	37 33 37 30
HDMI 2	37 33 37 31
PIC.ADJ.	37 33 37 32
INFO.	37 33 37 34
GAMMA	37 33 37 35
C.TEMP	37 33 37 36
3D	37 33 38 37
COLOR PROFILE	37 33 38 38
C.M.D	37 33 38 41
ANAMO	37 33 43 35
COLOR SPACE	37 33 43 44
LENS MEMORY	37 33 44 34
3D SETTING	37 33 44 35
3D FORMAT	37 33 44 46

# SDC-12/SDC-15 1080p D-ILA 3D Front Projector 2013 Addendum

## 2013 Specifications

<b>Product Name</b>	Wolf Cinema SDC-12 and SDC-15, 3D D-ILA Home Cinema Projector
<b>Model Name</b>	Model Name SDC-12, aka “GrayWolf 4K”, and SDC-15, aka “The Cub”
<b>Display Panel/Size</b>	D-ILA device * 2 *3 0.7” (1920 pixels x 1080 pixels) x 3 (total no. of pixels: approx. 6.22 million)
<b>Projection Lens</b>	2.0 x power zoom lens (1.45:1 to 2.78:1) (zoom/focus: power)
<b>VariScope™</b>	Multiple user-adjustable lens presets aspect ratios [ex. 1.78:1, 1.85:1 and 2.35:1] [NOTE: projector throw distance when utilizing the internal VariScope feature is appx. 1.45:1 to 2.1:1 x SW] [external VariScope FX™ anamorphic lens support also provided]
<b>Light-source Lamp</b>	230 W Ultra-high pressure mercury lamp [Part No.WC-LPU230]
<b>Average Lifespan</b>	3000-4000 hours (normal mode)
<b>Screen Size</b>	Approx. 60” to 200” (aspect ratio: 16:9)
<b>Performance</b>	1300 ANSI, ~70,000:1 CR performance [SDC-12], ~110,000:1 CR performance [SDC-15]
<b>Resolution</b>	1920 dots x 1080 dots
<b>V4K™ Resolution</b>	3840 dots x 2160 dots
<b>2D-&gt;3D Algorithm</b>	Real time conversion of standard 2D images into 3D
<b>Projection Distance</b>	Approx. 1.8m to 12m
<b>Analog Video Input Format</b>	480i, 480p, 576i, 576p, 720p/50 Hz, 720p/60 Hz, 1080i/50 Hz, 1080i/60 Hz
<b>Digital Video Input Format</b>	480i, 480p, 576i, 576p, 720p/50 Hz, 720p/60 Hz, 1080i/50 Hz, 1080i/60 Hz, 1080p/24 Hz, 1080p/50 Hz, 1080p/60 Hz PC compatible signals (Reference page: 26 of the 2013 User's Manual)
<b>Input terminals</b>	
<b>Video Input</b>	1 system, RCA pin jack x3 Y:1.0Vp-p, 75Ω Pb/Cb, Pr/Cr:0.7Vp-p, 75Ω * Also supports R / G / B Sync on G
<b>HDMI Input</b>	2 system, HDMI 19 pin × 2 (HDCP compliant) * 4 Compatible with the HDMI v1.4a standard * 5
<b>PC Input</b>	1 system, D-Sub 15 pin VGA
<b>Output Terminal</b>	
<b>Trigger terminal</b>	1 system, 3.5mm DC power jack (⊖ ⊕) DC OUT 12V, 0.1A
<b>3D Synchro</b>	3D synchro emitter dedicated terminal (1 system, mini DIN 3pin)
<b>Control Terminal</b>	RS-232C terminal 1 system, D-sub 9-pin (male) x1 (external control)
<b>Remote Terminal</b>	1 system, stereo mini jack x1 (remote control)
<b>LAN Terminal</b>	1 system, RJ-45 plug x1

<b>Power Requirements</b>	AC 110V-240V 50/60Hz
<b>Power Consumption</b>	360W (3.4A) (standby mode: 0.4W)
<b>Operation Environment</b>	Temperature: 5°C to 35°C Humidity: 20% to 80% (no condensation) (storage temperature: -10 C to 60 C)
<b>Installation Height</b>	Recommended below 5000 ft (1524 m). (high altitude operating mode available)
<b>Dimensions (WxHxD)</b>	19.5 x 8.8 x 22.5 in., 496 x 224 x 572 mm
<b>Weight</b>	60 lbs., 28 kg. net / 75 lbs., 34 kg. shipping
<b>Accessories</b>	(Reference page: 14 in the SDC-12/SDC-15 User's Manual)

**Notes:**

- \* 2 D-ILA is the abbreviation for Direct-Drive Image Light Amplifier.
- \* 3 D-ILA devices are manufactured using extremely high-precision technology. Pixel effectiveness is 99.99%. Only 0.01% or less of the pixels may be off or permanently lit and still be within spec.
- \* 4 HDCP is the abbreviation for High-bandwidth Digital Content Protection system.
- \* 5 Ethernet is not supported.

- Design and specifications are subject to change without prior notice.
- Please note that some of the pictures and illustrations may have been abridged, enlarged or contextualized in order to aid comprehension. Images may differ from the actual product.

**Wolf Cinema** – The New Standard of Excellence

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