SHOWlite 5000sx⁺

LCD Projector

Instructions on How to Use Edge Blending Function

DIGITAL **PROJECTION**

This edition applies to Version 1.11.

A new function called "Edge Blending" makes large screen display possible, arranging and stacking multiple projectors on right, left, top or bottom with high resolution maintained. This function adjusts overlapping edges of images projected from each projector to uniform multi-screen images. This document provides procedures for using the Edge Blending function.

Important

- When installing the projectors side by side, place a partition between one projector and another in order to avoid one projector exposing to hot air exhausted from another. The exhausted air from the projector is hot. Exposure to the hot exhausted air can damage the projector.
- Set the lens position of each projector to center. Equalizing quality of an image from each projector makes overlapping edges less visible.

  For recommended throw distances, refer to the **Table of Throw Distances and Screen Sizes for Optional Lenses** in "**2. Installation**" and "**7. Setting Up for Double Stacking in Link Mode**" of the user's manual included with the projector.

Example: Placing two projectors side by side

Overlapping area

Projected area

Projected area

Projector A

Projector B

Partition
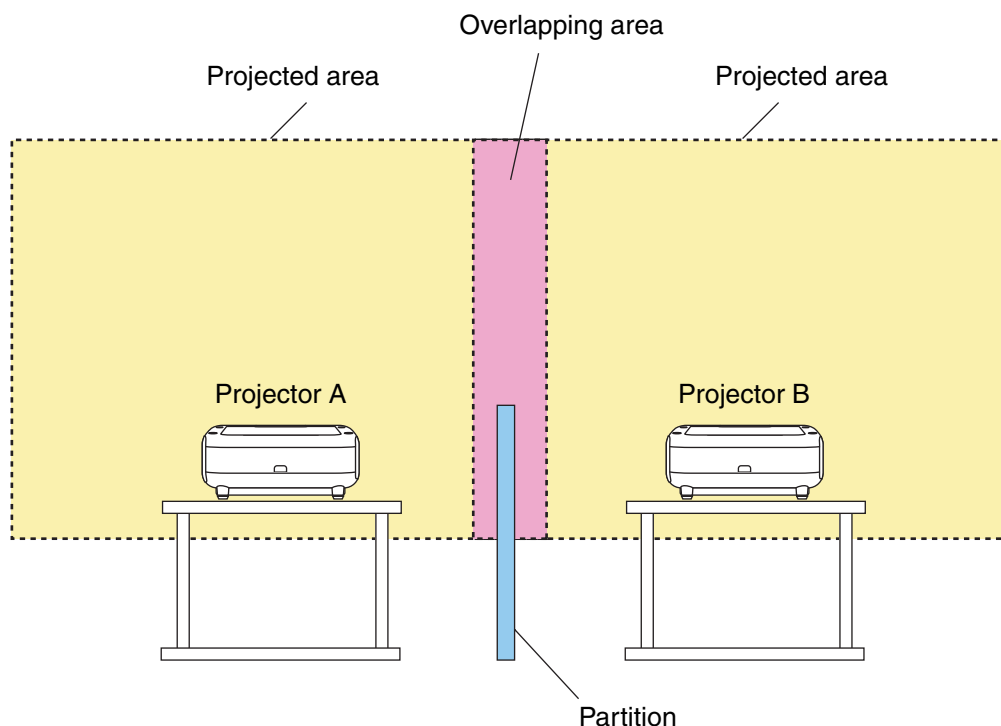
Operating Instructions

This section explains the case for "**Example: <u>Placing two projectors side by side</u>**". As shown the above drawing the projector placed on the left is referred to as "Projector A" and on the right as "Projector B". Hereafter, unless otherwise specified hereinafter, the "projector" is used to mean both A and B.

Step 1 Installing the Projectors

1. Turn on the power to each projector.

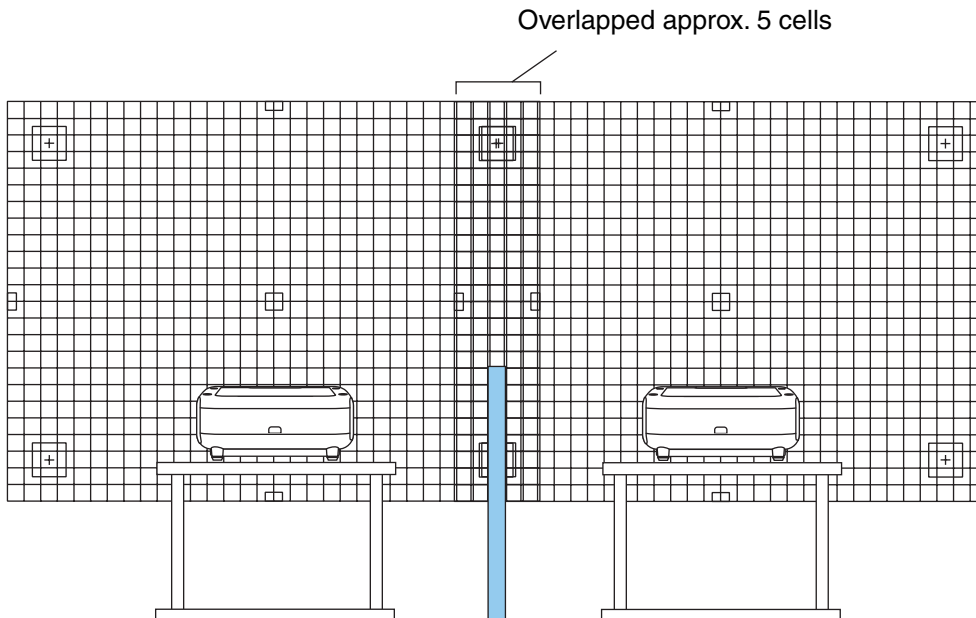**2. Adjust the alignment of a projected image.**

2-1. Select "Cross Hatch" in the "Test Pattern"

• [Advanced Menu] → [Test Pattern] → [Cross Hatch]
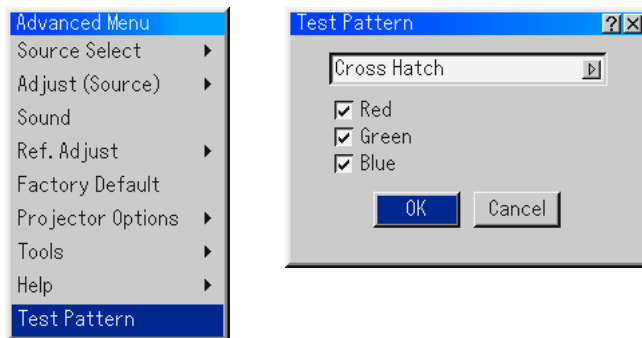
2-2. Make the images all the same size and square by adjusting installation position or height for each projector.

• To align the left and right sides, adjust so that sixth of each image is overlapped as shown below.

• To align the top and bottom sides, adjust so that fourth of each image is overlapped.
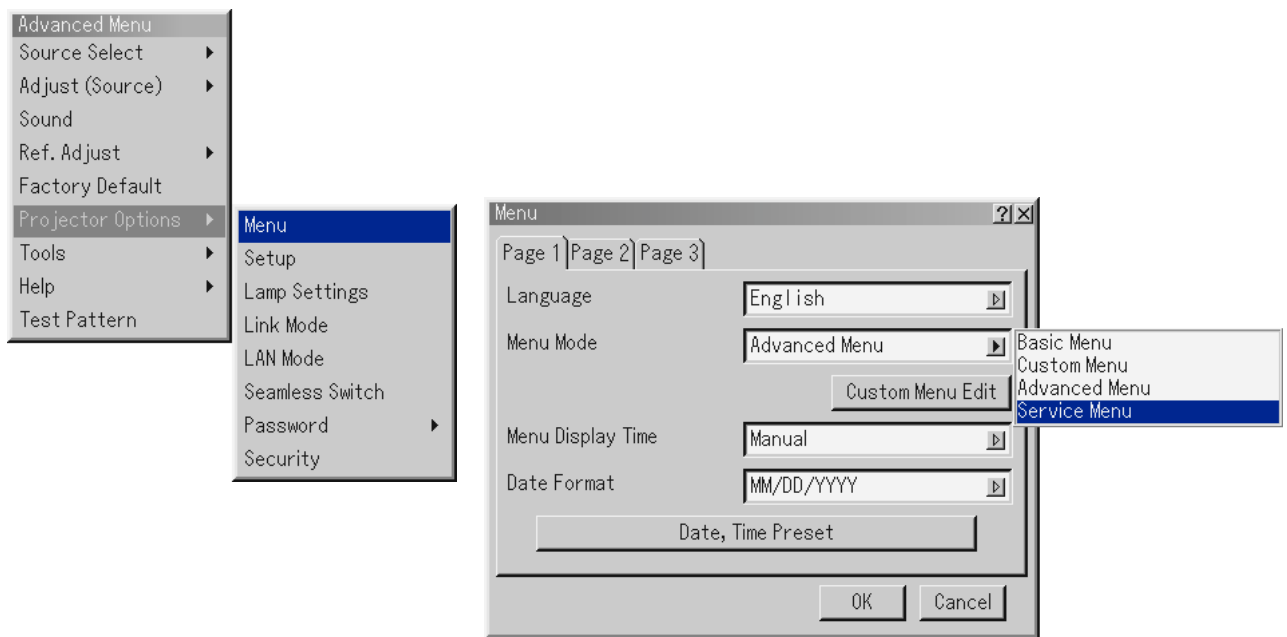

Overlapped approx. 5 cells

Tip:

Turning on the Edge Blending function allows you to adjust (blend) the contrast of an overlapped image in 256-dot width counting from the edge.

3. Select "Edge Blending".

3-1. After finishing adjusting the alignment, select the "Service Menu" from the menu.
- [Advanced Menu] → [Projector Options] → [Menu] → [Page 1] → [Menu Mode] → [Service Menu]

```
Advanced Menu
Source Select        ▶
Adjust (Source)      ▶
Sound
Ref. Adjust          ▶
Factory Default
Projector Options    ▶    Menu
Tools                ▶    Setup
Help                 ▶    Lamp Settings
Test Pattern              Link Mode
                          LAN Mode
                          Seamless Switch
                          Password          ▶
                          Security
```

```
Menu                                              [?][X]
Page 1 | Page 2 | Page 3 |

Language          English              ▷
Menu Mode         Advanced Menu        ▷    Basic Menu
                                            Custom Menu
                       Custom Menu Edit     Advanced Menu
                                            Service Menu
Menu Display Time  Manual               ▷
Date Format        MM/DD/YYYY           ▷
                 Date, Time Preset

                                    OK      Cancel
```

3-2. Type the exclusive password for the "Service Menu" and press the ENTER button.

```
Password                [?][X]
     ****
```
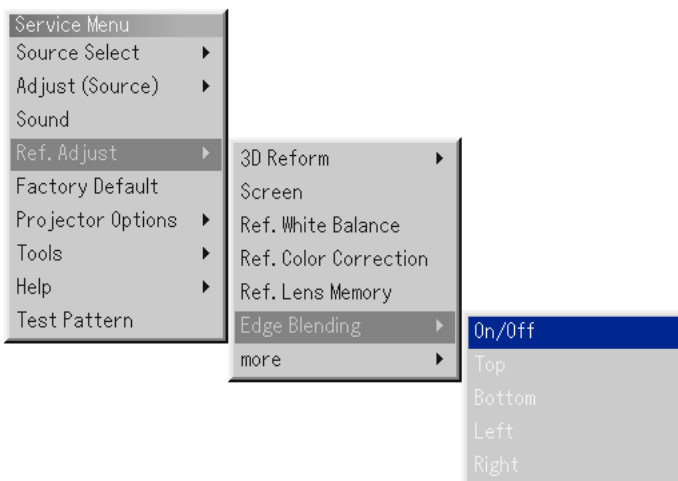
The "Service Menu" will be displayed.

3-3. Select "Edge Blending".
- [Service Menu] → [Ref. Adjust] → [Edge Blending] → [On/Off]

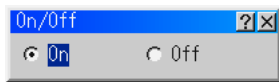3-4. Highlight [On/Off] and press the ENTER button.
The [ON/OFF] selection screen will be displayed.

```
Service Menu
Source Select        ▶
Adjust (Source)      ▶
Sound
Ref. Adjust          ▶    3D Reform           ▶
Factory Default           Screen
Projector Options    ▶    Ref. White Balance
Tools                ▶    Ref. Color Correction
Help                 ▶    Ref. Lens Memory
Test Pattern              Edge Blending       ▶    On/Off
                          more                ▶    Top
                                                   Bottom
                                                   Left
                                                   Right
```

3-5. Select "On" and press the ENTER button.

This will return to "Edge Blending" menu.

3-6. Select "Right" on Projector A and press the ENTER button.

• Select "Left" on Projector B and press the ENTER button.
The Edge Blending adjustment bar will be displayed.
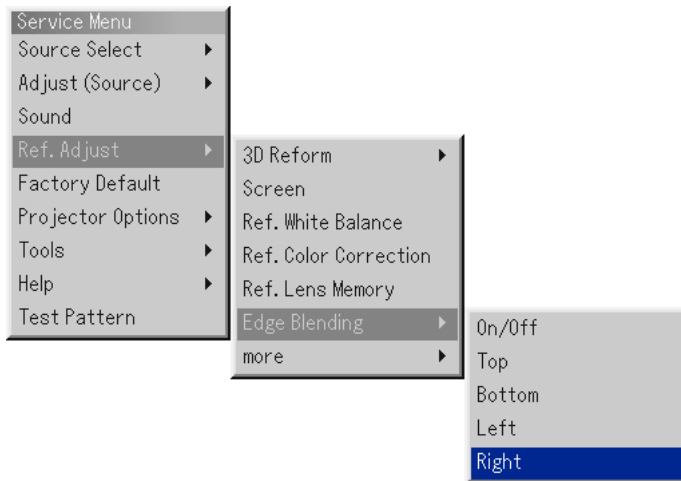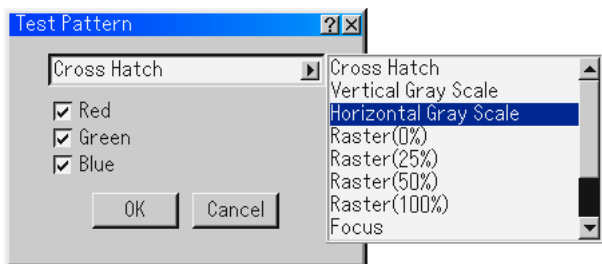

3-7. Set "Blending" to 256 and press the ENTER button.

• Change values for "Blending" according to the condition of a projected image.
• See "Tip" on the next page for the function of each item.

4. Carry out "Edge Blending".

4-1. Select "Horizontal Gray Scale" in the [Test Pattern].

• [Service Menu] → [Test Pattern] → [Horizontal Gray Scale]

4-2. Use the LENS SHIFT ◀ or ▶ button to adjust the boundary area of overlapped images from Projector A and B until the area looks seamless and smooth.

Boundary area

Adjust until the boundary area looks seamless and smooth
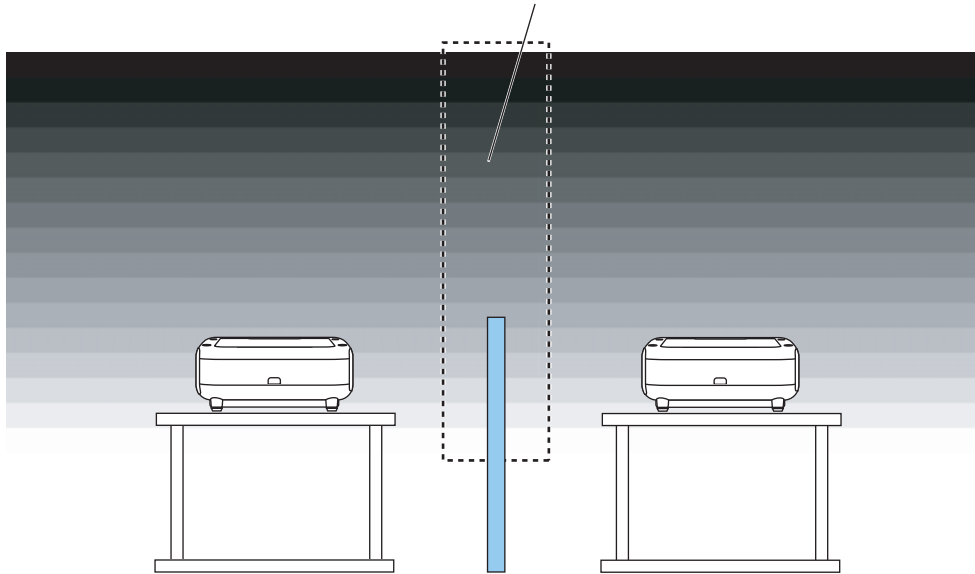
This will complete the installation for each projector.

Tip: About "Blending"

Blending: Specify values of blending width (number of dots) as shown below.

Projected area

Width of Blending
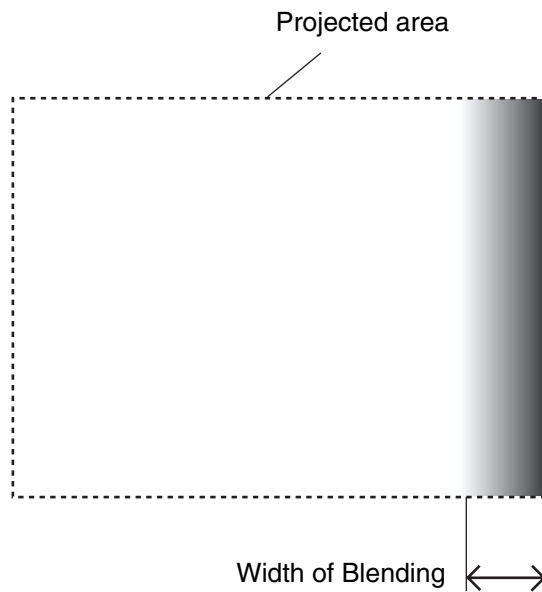
Step 2 Adjusting Image Position

● **For common video sources such as a DVD player**

1. Project the same images from all the projectors.

2. Select "4:3" in [Aspect Ratio].

2-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [Aspect Ratio].
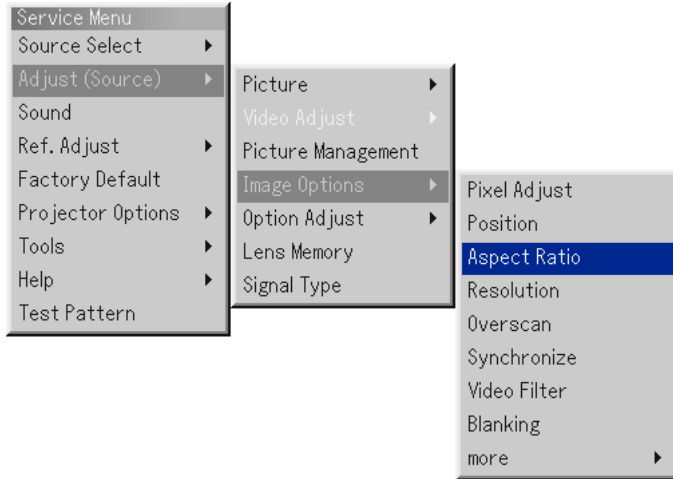
2-2. Highlight "1.33:1 (4:3)" and press the ENTER button.
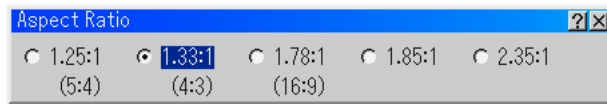
3. When black bands are displayed at the top and bottom of the screen, adjust [Amplitude] and [Output Position] to expand the image.

When black bands are not displayed at the top and bottom of the screen, which means the image fills the screen, go to the next Step "4. Adjust [Position] to align the left and right images in overlapping area".

3-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [more] → [Amplitude].
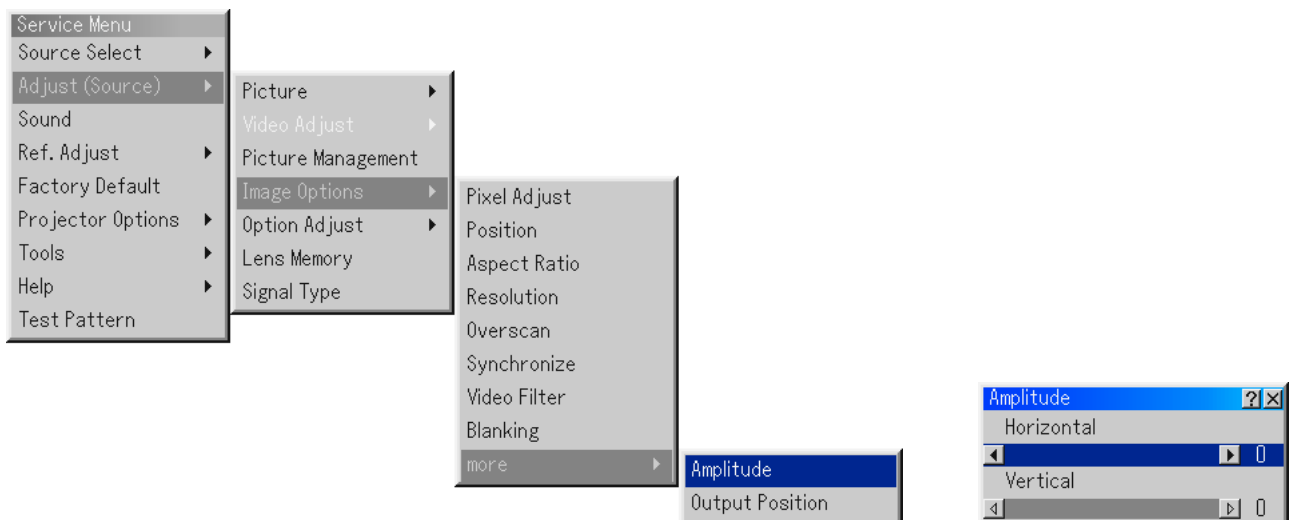
3-2. Highlight "Vertical" and press the SELECT ▶ button to expand the image downward.
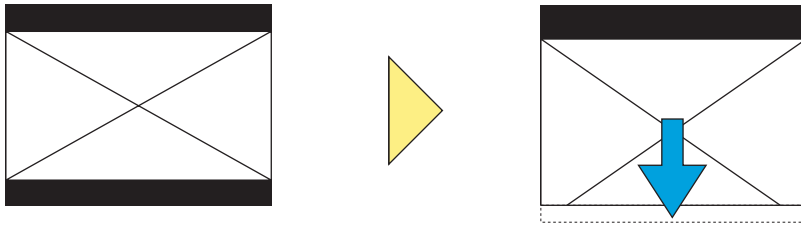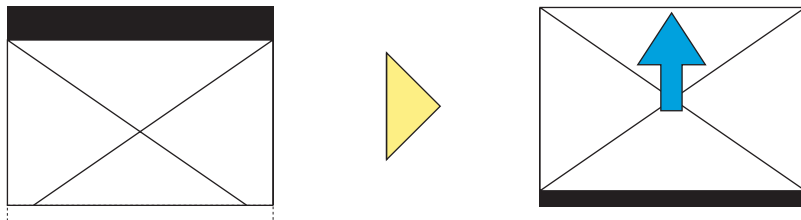

3-3. Press the ENTER button.

3-4. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [more] → [Output Position].
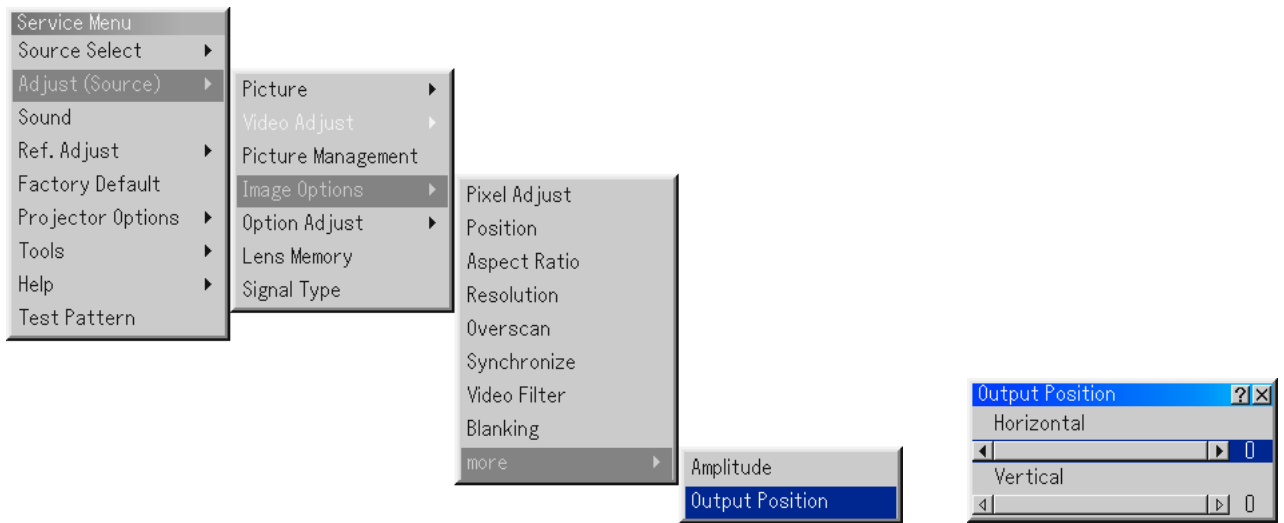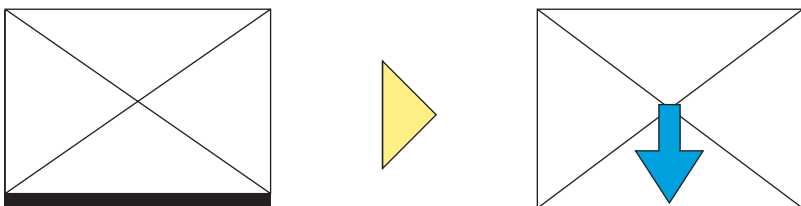

3-5. Highlight "Vertical" and press the SELECT ◀ button to move the image upward.
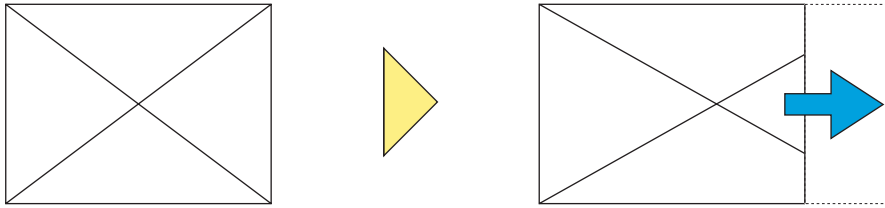

3-6. Press the ENTER button.

3-7. Go back to "Amplitude", highlight "Vertical" and press the SELECT ▶ button to expand the image to fill the screen.
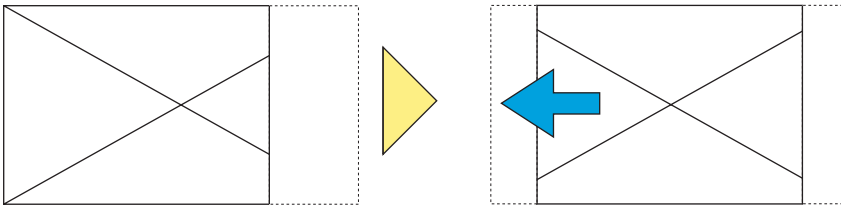
3-8. Highlight "Horizontal" and apply the same value as for "Vertical".

The aspect ratio will be corrected. The right side of the image will be displayed out of the projected area.
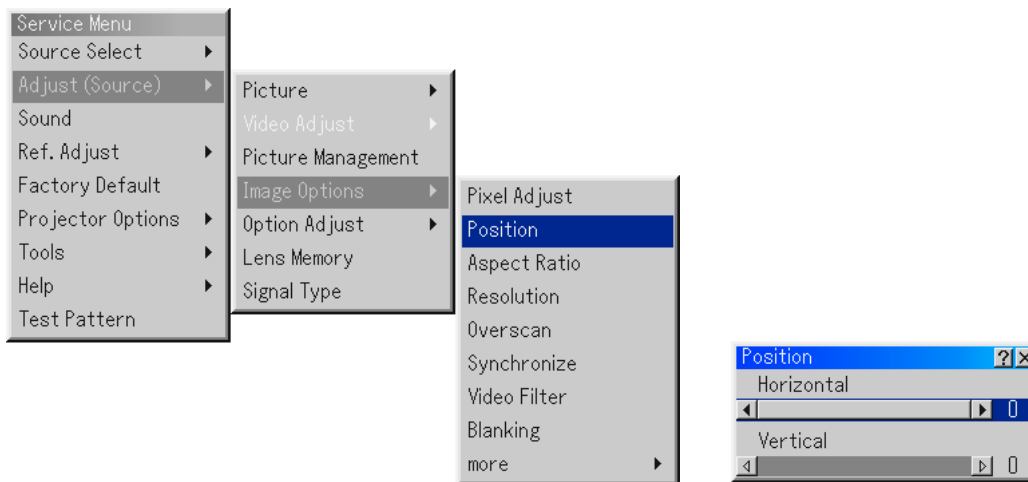

3-9. Press the ENTER button.

3-10. Go back to "Output Position", highlight "Horizontal" and press the SELECT ◄ button to align the center of the image with the center of the projected area.

4. Adjust [Position] to align the left and right images in overlapping area.

4-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [Position].
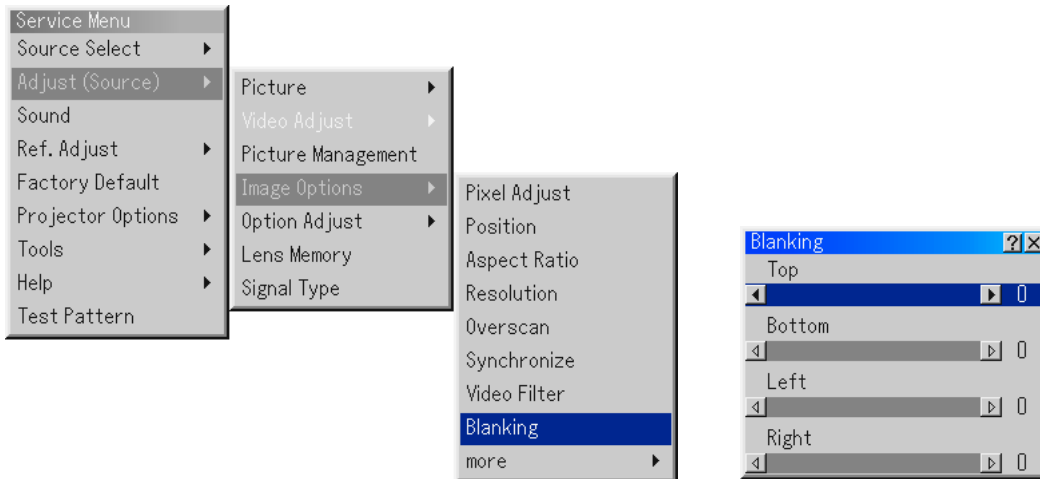

4-2. Highlight "Horizontal" and adjust the bar to move the image horizontally.

- On both Projectors A and B, move the image in the direction of minus (–).
- On Projector A (left side when viewed from the front), moving the image in the direction of minus (–) will start disappearing from the left end of the image, but the image will appear slowly from the right end again.

5. Adjust [Blanking] to erase unnecessary area in the right and left sides of the image.

5-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [Blanking].

Service Menu			
Source Select ▶			
Adjust (Source) ▶	Picture ▶		
Sound	Video Adjust ▶		
Ref. Adjust ▶	Picture Management		
Factory Default	Image Options ▶	Pixel Adjust	
Projector Options ▶	Option Adjust ▶	Position	
Tools ▶	Lens Memory	Aspect Ratio	Blanking ？✕
Help ▶	Signal Type	Resolution	Top
Test Pattern		Overscan	◀ ▶ 0
		Synchronize	Bottom
		Video Filter	◁ ▷ 0
		Blanking	Left
		more ▶	◁ ▷ 0
			Right
			◁ ▷ 0

5-2. On Projector A, highlight "Left" and use the SELECT ◀ or ▶ button to erase unnecessary area in the left side of the image

- On Projector B, highlight "Right" and use the SELECT ◀ or ▶ button to erase unnecessary area in the right side of the image
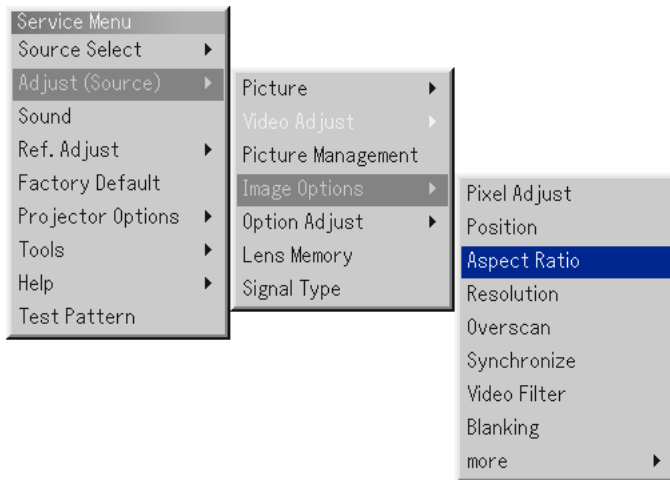
This will complete adjustment of image position.

● For HDTV sources

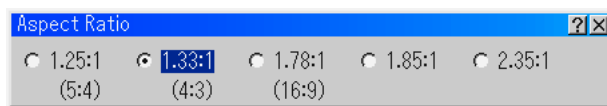**1. Project the same images from all the projectors.**

2. Select "4:3" in [Aspect Ratio].

2-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [Aspect Ratio].
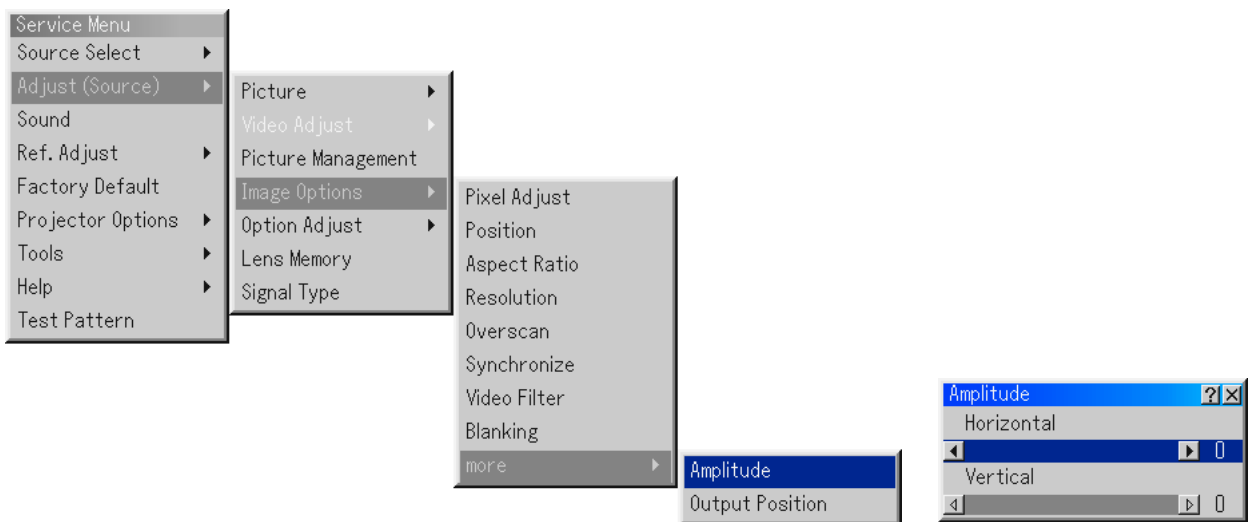

2-2. Highlight "1.33:1 (4:3)" and press the ENTER button.

The projected image will be displayed with the top and bottom stretched.

3. Use "Horizontal" in [Amplitude] and [Output Position] to adjust the aspect ratio of an image.
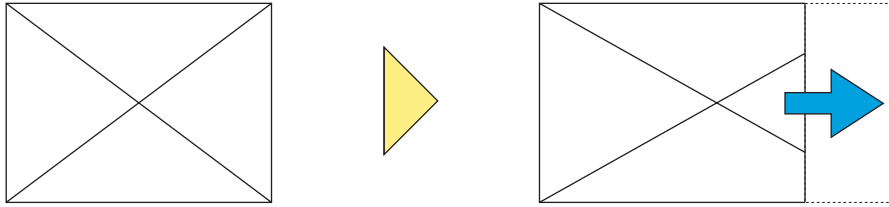
3-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [more] → [Amplitude].

3-2. Highlight "Horizontal" and use the SELECT ▶ button to set the values to "133".
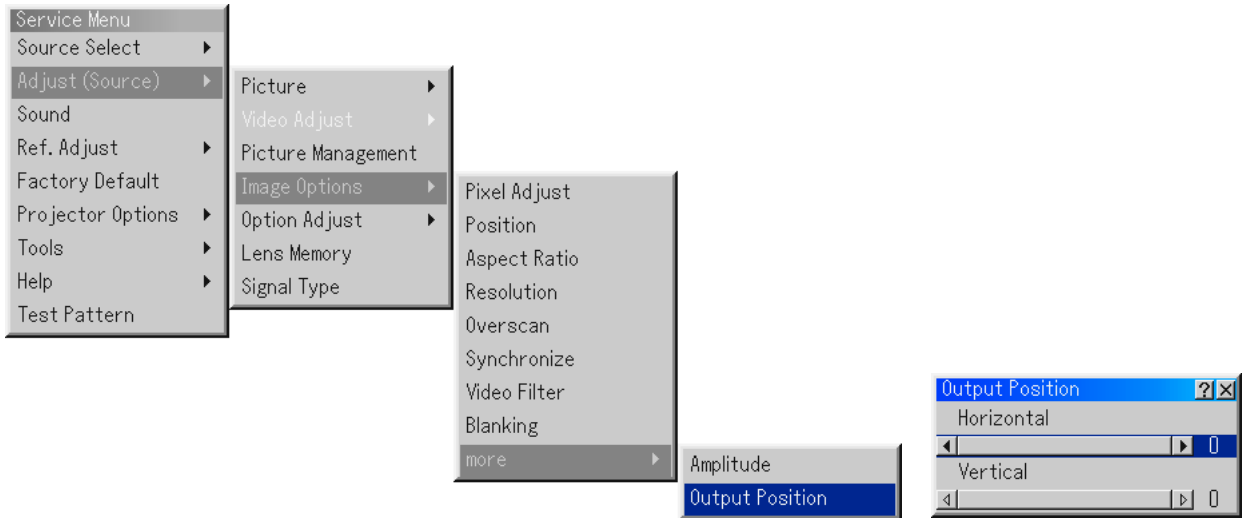
The aspect ratio will be corrected. The right side of the image will be displayed out of the projected area.
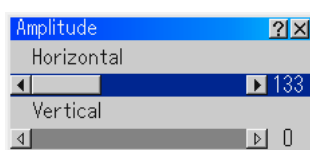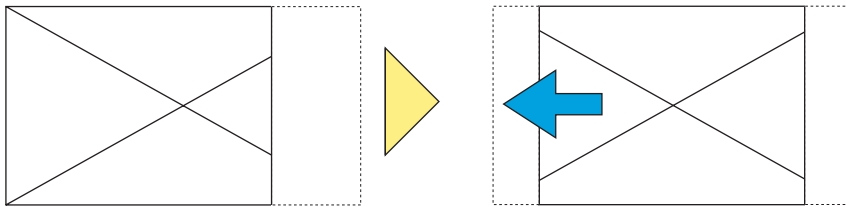
3-3. Press the ENTER button.

3-4. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [more] → [Output Position].
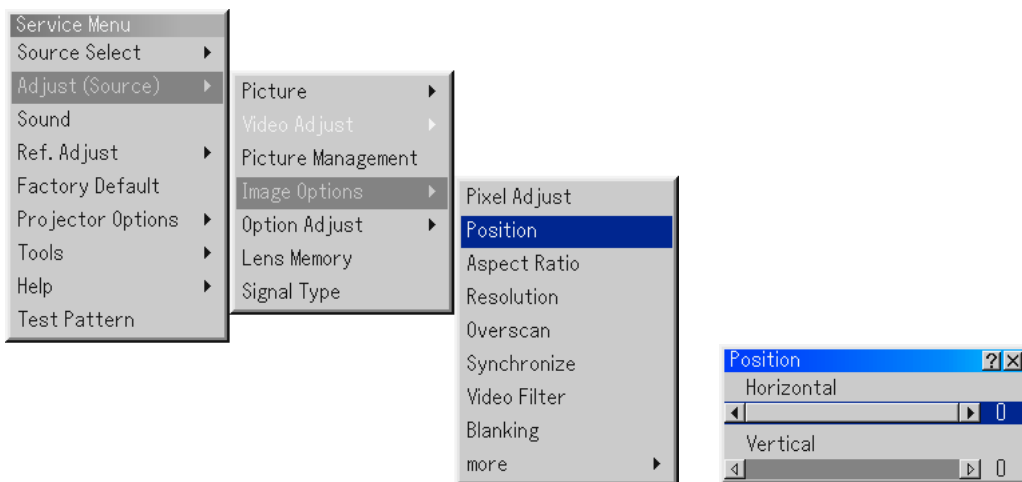

3-5. Highlight "Horizontal" and press the SELECT ◄ button to align the center of the image with the center of the projected area.

4. Adjust [Position] to align the left and right images in overlapping area.

4-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [Position].
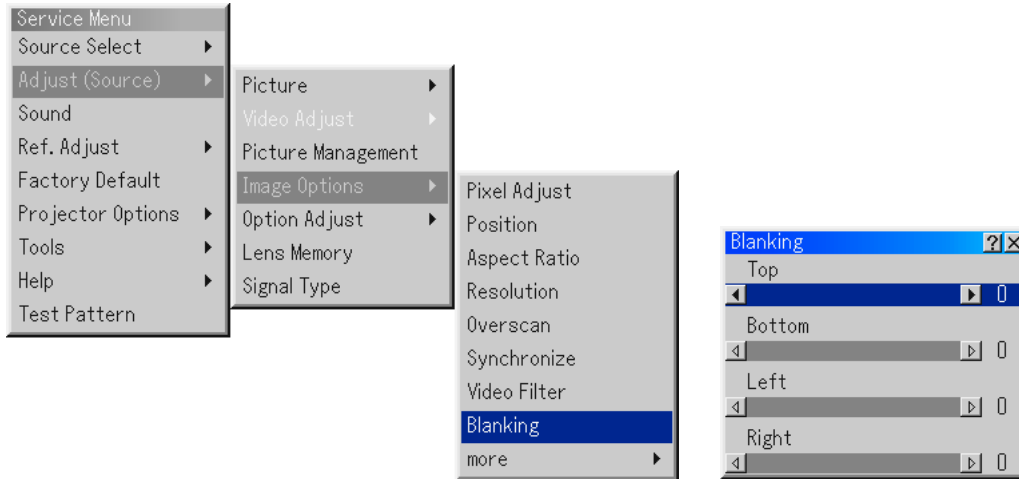
4-2. Highlight "Horizontal" and adjust the bar to move the image horizontally.

- On both Projectors A and B, move the image in the direction of minus (–).
- On Projector A (left side when viewed from the front), moving the image in the direction of minus (–) will start disappearing from the left end of the image, but the image will appear slowly from the right end again.

5. Adjust [Blanking] to erase unnecessary area in the right and left sides of the image.

5-1. Select [Service Menu] → [Adjust (Source)] → [Image Options] → [Blanking].

5-2. On Projector A, highlight "Left" and use the SELECT ◄ or ► button to erase unnecessary area in the left side of the image.

- On Projector B, highlight "Right" and use the SELECT ◄ or ► button to erase unnecessary area in the right side of the image.

This will complete adjustment of image position.