User manual

Aeon StarBright 9™ Series

Ceiling Ambient Light Rejecting EDGE FREE®

Fixed Frame Screen

(Splicing type)

Rev. V20211204DT

(DS0207)

Elite Screens

Product maintenance and precautions

Dust, dirt, and scratches on the projection screen surface will affect the quality and performance of the projection image. Follow the instructions below to properly maintain the screen.

Cleaning and maintenance:

1) The screen surface has a horizontal linear structure. **DO NOT** wipe the screen up and down or in a circular motion. *Wipe gently from left to right only*.

2) Clean the dust on the screen surface with a soft brush or microfiber cloth. A rough/coarse towel or cloth may damage the screen's surface.

3) Gently wipe the screen with a lightly moistened white lint free cloth with water or with a neutral detergent mixed with water.

Attention:

1) Don't **touch** the screen material to avoid leaving fingerprints.
   Use gloves when handling the material.

2) Don't **scratch** the material, as it will leave permanent markings on the screen's surface.

3) Don't **point** to the screen material with a fingertip or other sharp objects to prevent damage to the material.

4) Don't use acetone, benzene, alcohol, and any other organic solvents to clean the screen material. Using such chemicals will permanently damage the screen.

※ **Note: this product is only suitable for standard throw projectors**

Prepare tools before installation

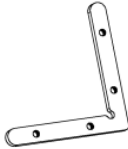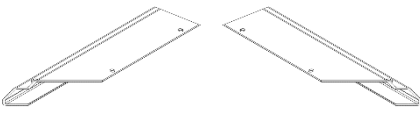1. Tape measure x1   2. Electric drill x1   3. Pencil x1   4. Screwdriver x1   5. Hammer x1
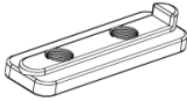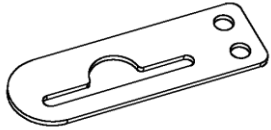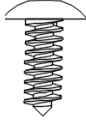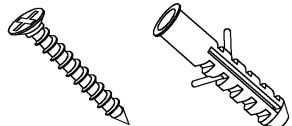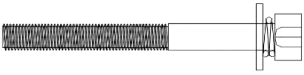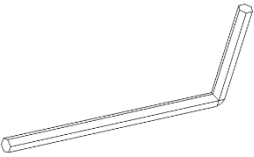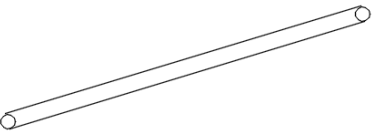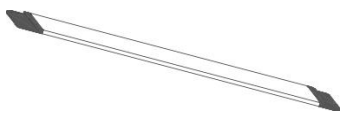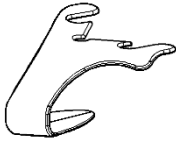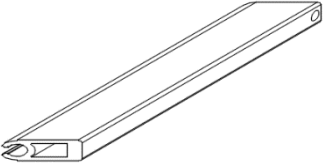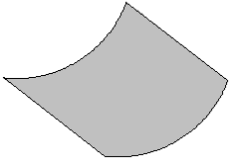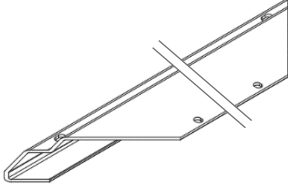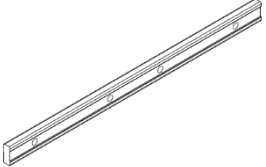
Hardware and Parts List

Please check whether the following accessories exist before installation. If there are any missing accessories, please contact us immediately.

A. Elbow joints x 8	B. Top/Bottom Horizontal frame x 4 (Part 1 x 2 + Part 2 x 2)	C. Left/Right vertical frame x 2
D. Top/Bottom Horizontal edge trim x 4 (Part 1 x 2 + Part 2 x 2)	E. Sliding nut x 4 (Installed in the frame already)	F. Wall bracket x 4
G. M3x8 screw x 20	H. M5x8 screw x 56 (Including 8pcs have been installed on the sliding nuts)	I. M5x50 Screw / Anchor x 4
J. M4x40 screw x 26	K. M3 Hex key x 2	L. Fiberglass rod x 6
M. Center support bar x 1	N. Gloves x 2	O. Screen material x 1
P. Corner cover x 4	Q. Adjustment bar x 6	R. Protection sheet x 1
S. Left/Right vertical edge trim x 2	T. Long Center joints x 4	

Frame assembly

Remove all items from the box. Find the Protection sheet (R), unfold it, and lay it down on a clean floor. Proceed to assemble the frame as follows:

1. Insert **Elbow joints** (A) and **Long center joints** (T) into one set of the **Horizontal frames** (B), as shown in the figure below.

⚠️ ATTENTION: Place the frame pieces away from each other to avoid scratching them during assembly.

Long center joints (T)

Elbow joints (A)   Elbow joints (A)

Horizontal frame (B)
(Part 1 + Part 2)

Top section

Bottom section

Sectional view
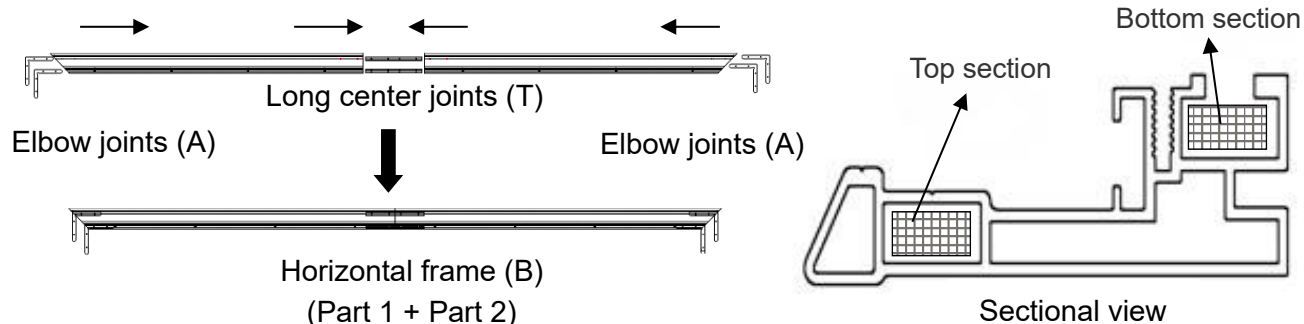
2. Insert the **Left/Right vertical frames** (C) into the **Elbow joints** (A). Then connect (Part 1 + Part 2) of the **Horizontal frame** (B), and assemble the frame as shown below.

Top Horizontal frame (B)

Push   Push

Left/Right vertical frame (C)

Bottom Horizontal frame (B)

Push   Push
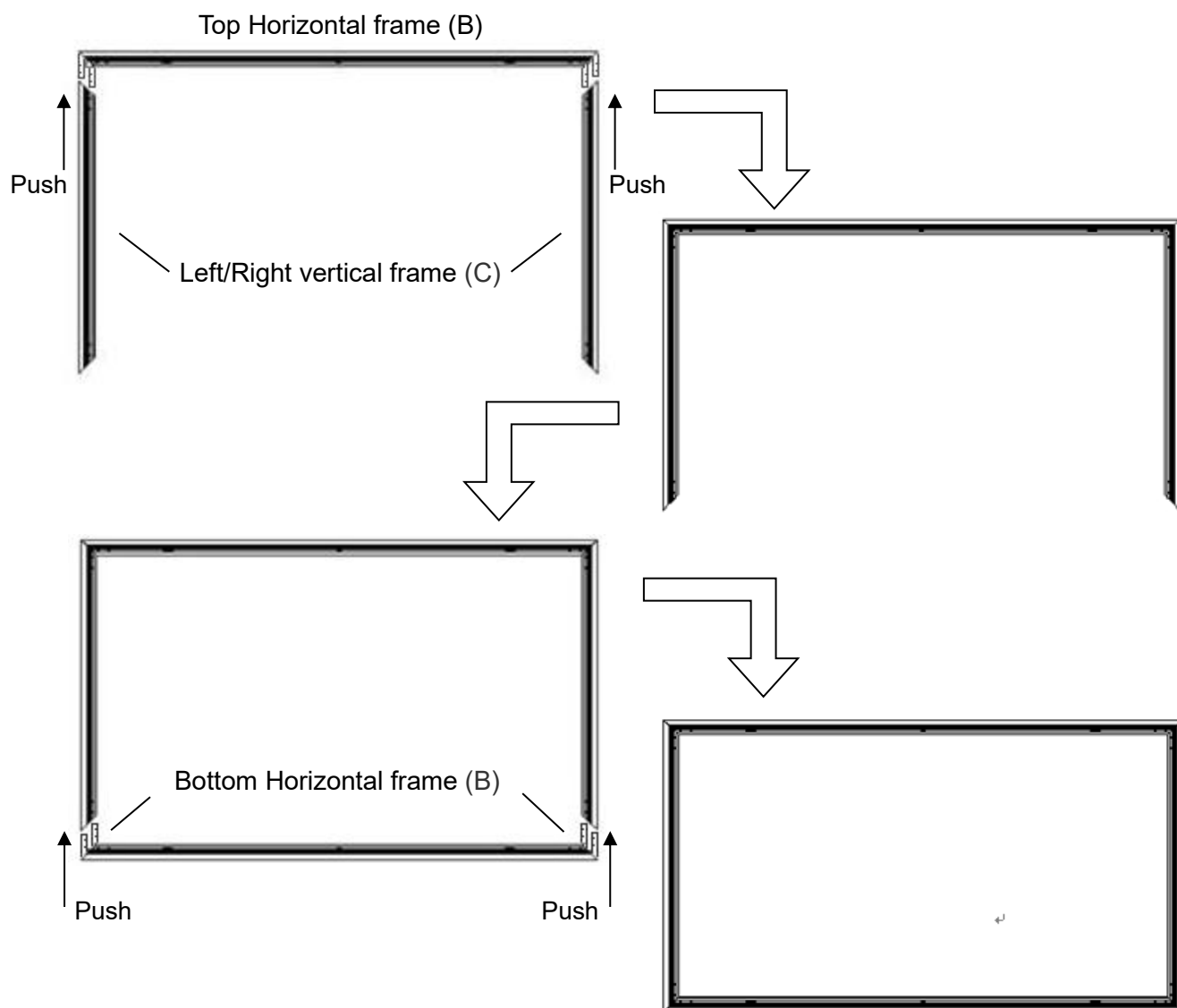
3. Fasten the center joints on the Horizontal Frames (B) using the screws. Then, make sure all four corners are properly in place to form a perfect square, then fasten the four angles with the **M5x8 flat head screws** (H).

Four corners join correctly to form a perfect rectangle.

M5x8 flat head screws (H)
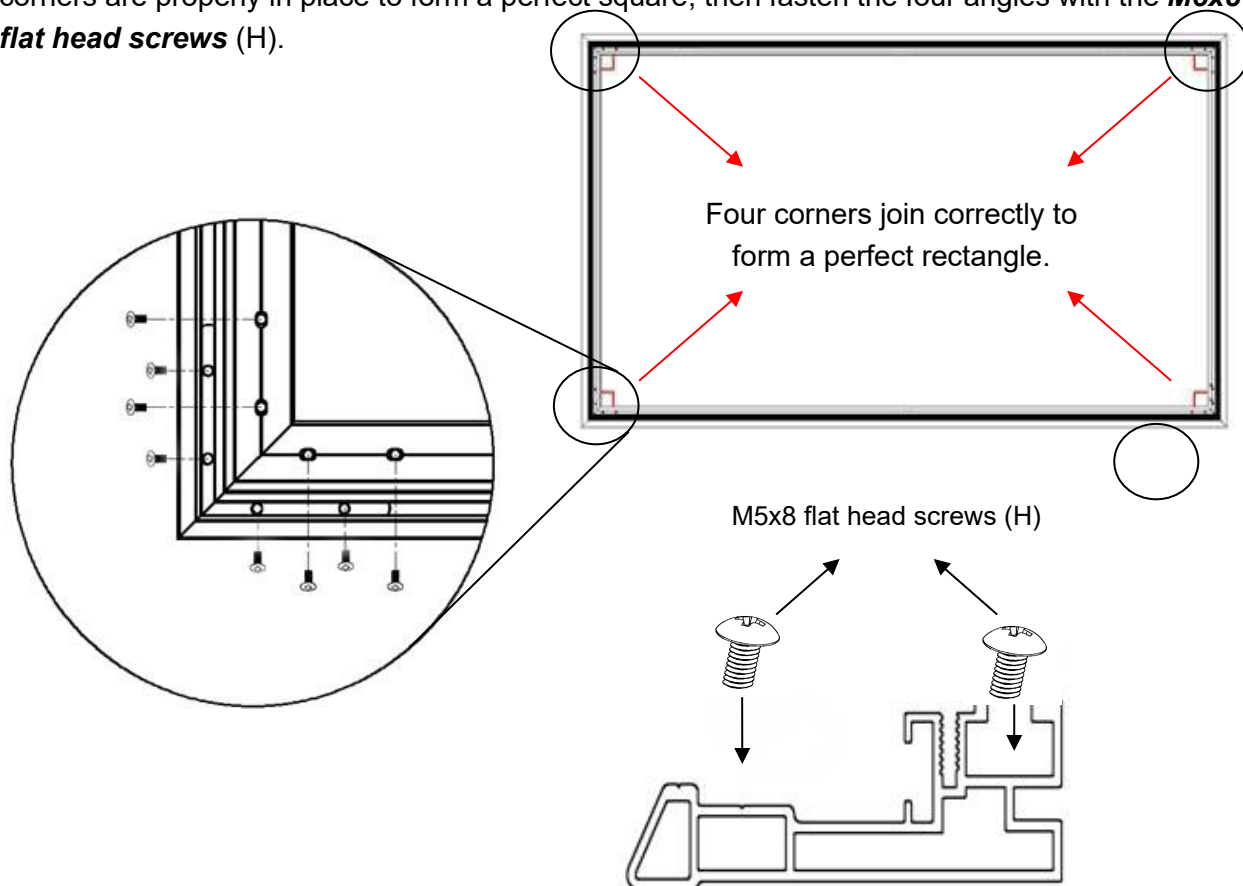
Screen Material Installation

1. Put on the installation **Gloves** (N) to avoid touching the screen material with bare hands which typically leave oily fingerprint marks that cannot be removed (Figure 1). Then, remove the assembled frame from the **Protection sheet** (R) and place it in a safe area.

2. Take the **Screen material** (O) out of the packaging tube and set it gently on the **Protection sheet** (R). Gently press one end of the screen material (screen edge) with a suitable weighted object or just by using hand pressure face down (DO NOT press and crush the screen material). Two people should hold the other end (rolled up end) slowly rotate the screen a clockwise direction (Figure 2).

(Figure 1)

Heavy weighted object or hand pressure

Backside of the screen
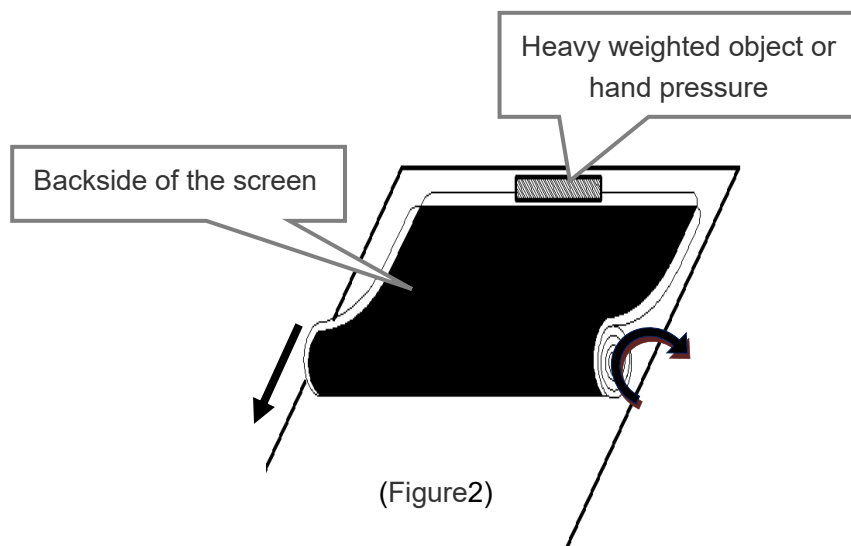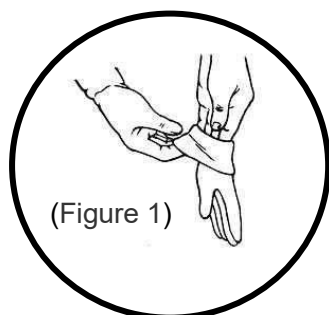
(Figure2)

3. Once the material has been completely unrolled, lay the material completely flat with the front facing down on a clean surface in a horizontal position (Figure 3)

⚠ There are thumbtacks fixed on the paper tube at the end of screen expansion. Pay attention to the thumbtacks to avoid stabbing yourself when removing them!

Front side of the screen

Backside of the screen

Note: Screen back facing up (Face down)

(Figure3)

⚠ The purpose of the protection film is to protect the screen during installation. If the film is moved, please try to move back the film into the center.

Clean, flat area that does not harm the screen's surface

30mm

30mm

Protection film

Backside of screen

Backside of screen

⚠ Do not remove protection film during installation, Make sure the film is at the center of screen.

4. Insert the **Fiberglass rods** (L) through the sleeves on the edges of the screen material. The long rods (1, 2) are used on the vertical edges of the screen material, and the short rods (3, 4, 5, 6) are used on the horizontal edges, as shown below.

3   4

Long side of the frame

Short side of the frame

Short side of the frame

1   2

Long side of the frame

5   6
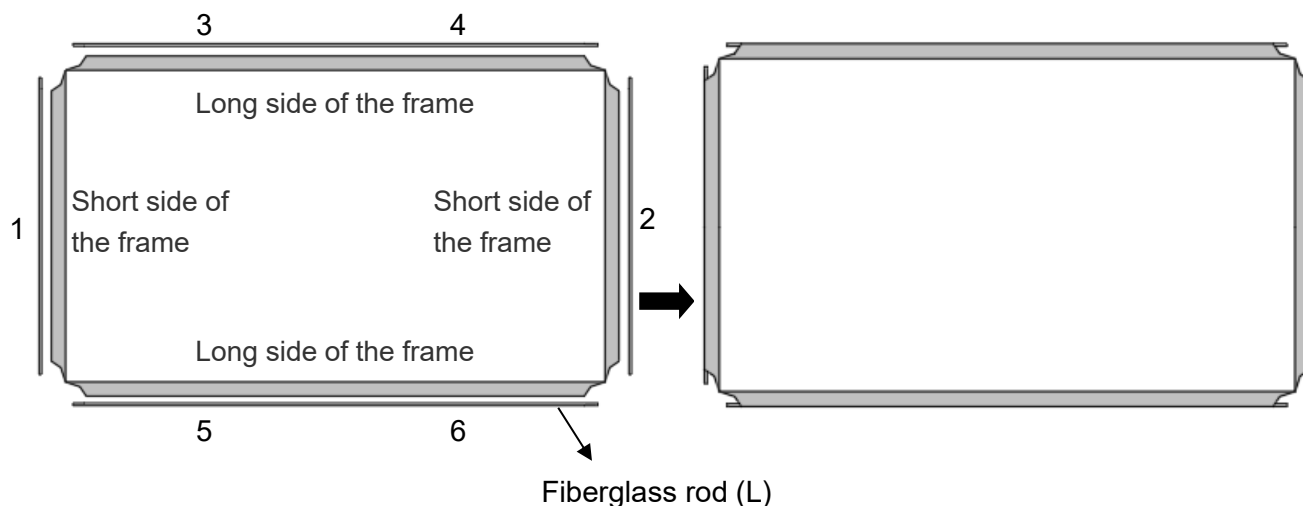
Fiberglass rod (L)

5. Insert the two long **_Adjustment bars_** (Q) on the fiberglass rods (1, 2) of the short side of the screen material and two short **_Adjustment bars (Q)_** on the fiberglass rod (3, 4, 5, 6) of the long side of the screen.

3   4

1   2

5   6

Adjustment bars position
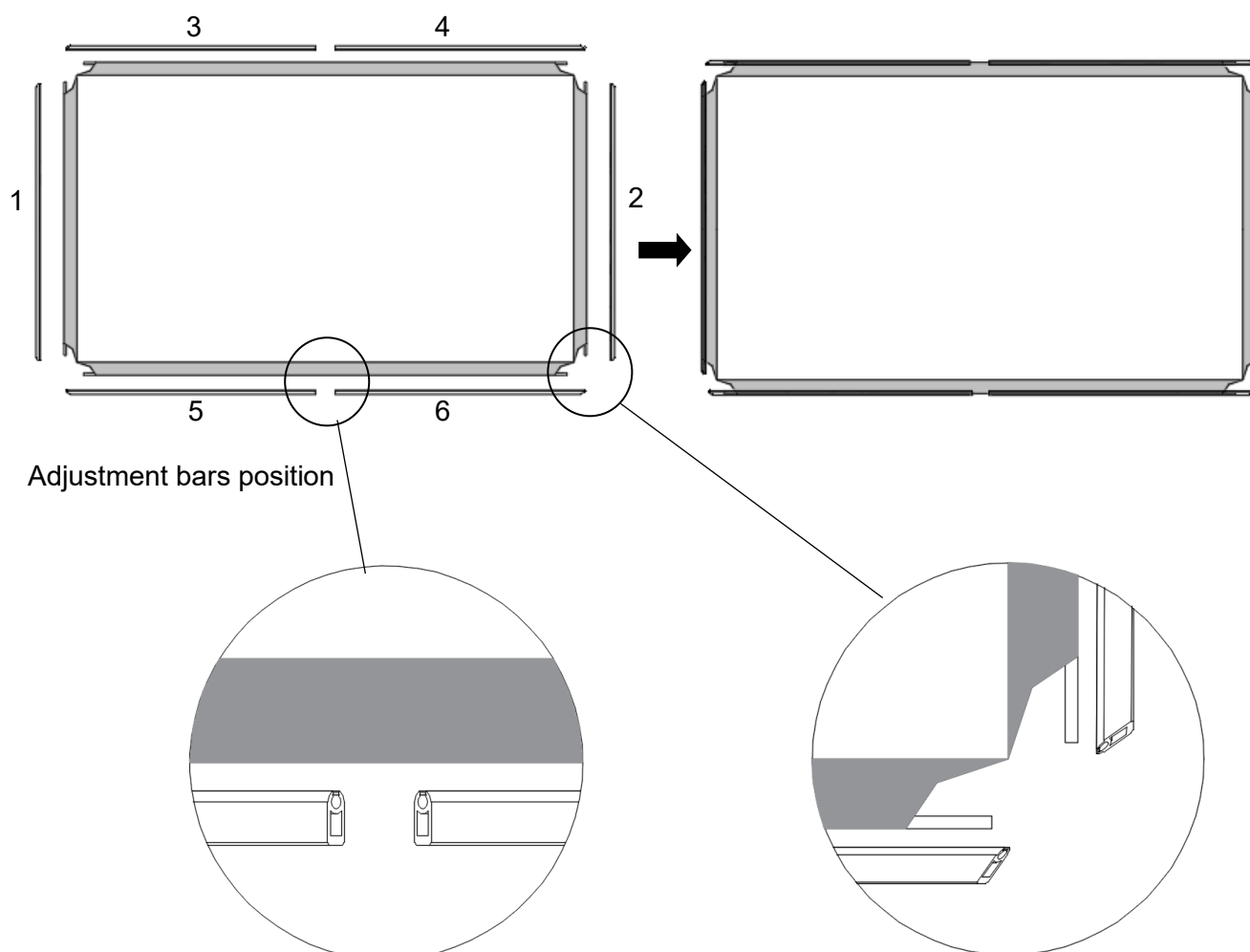
※ The upper and lower (middle points) adjustment bars have right-angle edges

※ All four angles should have the adjustment bars with the beveled angle

Adjustment bar installation

※   The adjustment bar is installed into the groove along the fiberglass rod

Screen material (O)

Adjustment bar (Q)

Center support bar installation

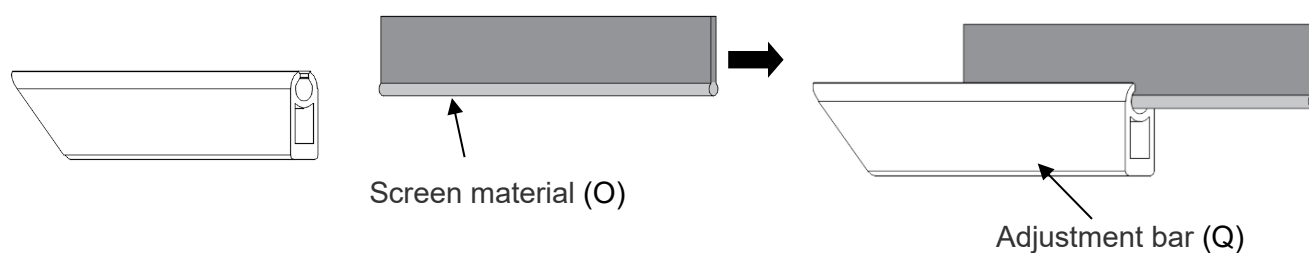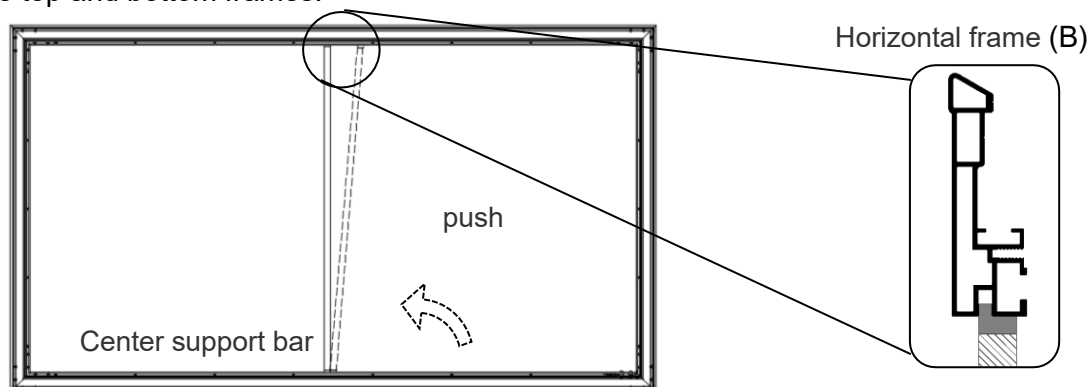Push the **Center support bar** (M) in the middle of the frame and align each end of the support bar with the top and bottom frames.

Horizontal frame (B)

push

Center support bar

Center support bar (M)

6. Carefully and gently place the assembled frame on top of the screen material. Make sure to not allow the angle edge of the frame to come in direct contact with the screen material to avoid puncturing it.

7. Ensure that the sliders in the left and right short frames (two sliders on each side) are fixed 1/4 of the frame away from both top/bottom ends.

Note: The screen back facing up

Align the frame with the marked lines
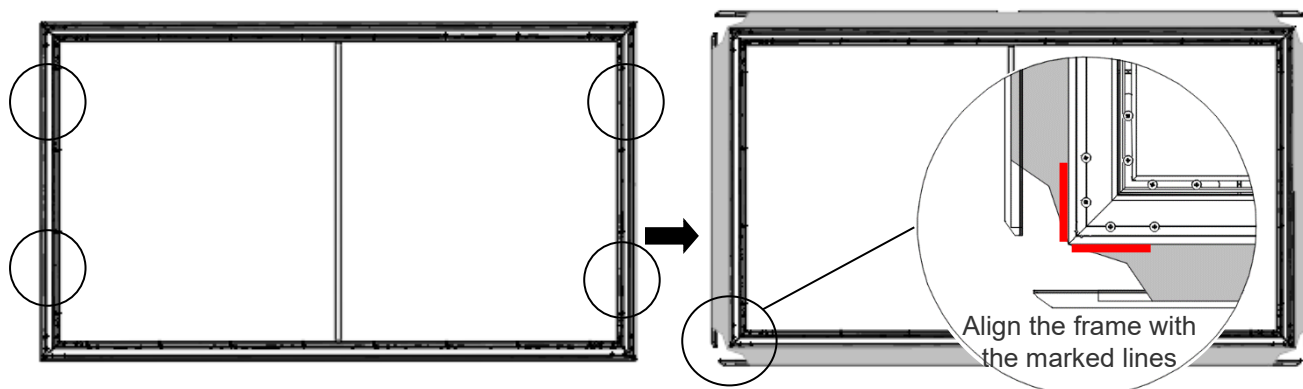
Adjustment Bar to Frame Installation

8. Once all the four corners of the frame have been properly aligned on the marked areas on the material, two people should insert the **M4x40 screw** (J) through the frame hole and fasten it on the **adjustment bar** (Q) by **turning it twice**. **Note: Don't over tighten. Adjust until all screws have been inserted.**

9. Secure and tighten the **M4x40 screw** (J) using the **M3 Hex Key** (K) symmetrically in the following sequence: 1-1 → 2-2 → 3-3 → 4-4 → 5-5 → 6-6 → 7-7 → 8-8 → 9-9 → 10-10 → 11-11 → 12-12 → 13-13.
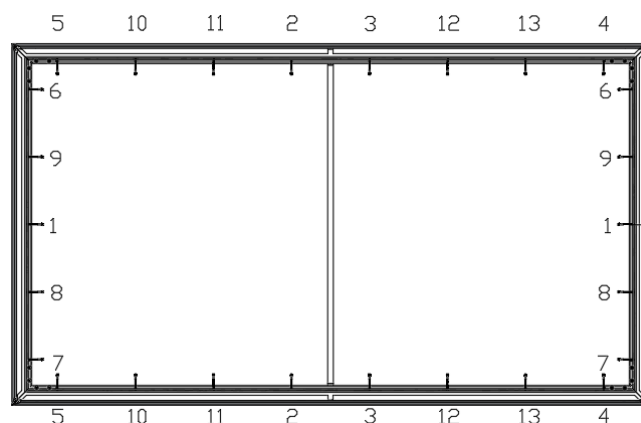
ATTENTION: Make sure the screen material does not shift and remains aligned on all 4 corners of the frame before proceeding to 4-4→ 5-5 → 6-6 → 7-7. Failure to keep material aligned will cause it to get squeezed when installing the edge trim and result in damage.

Note: The distance between the adjustment bar and the edge of the frame is approximately 0.11-0.14" (3-4mm) after completely fastened.

0.11"- 0.14"
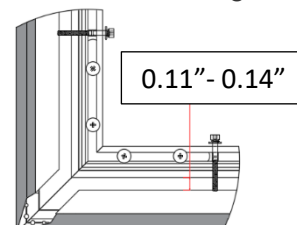
Illustration of steps above

Screen material (O)

M3 Hex Key (K)

M3 Hex Key (K)

Adjustment bar (Q)

Fiberglass rod (L)

※ Turn the adjustment bar and place it on the back of the frame

※ Insert M4x40 screw, fasten it to the adjustment bar and turn it twice

※ Tighten the screws with the M3 hex key

※   Diagram of corner and horizontal screw installation
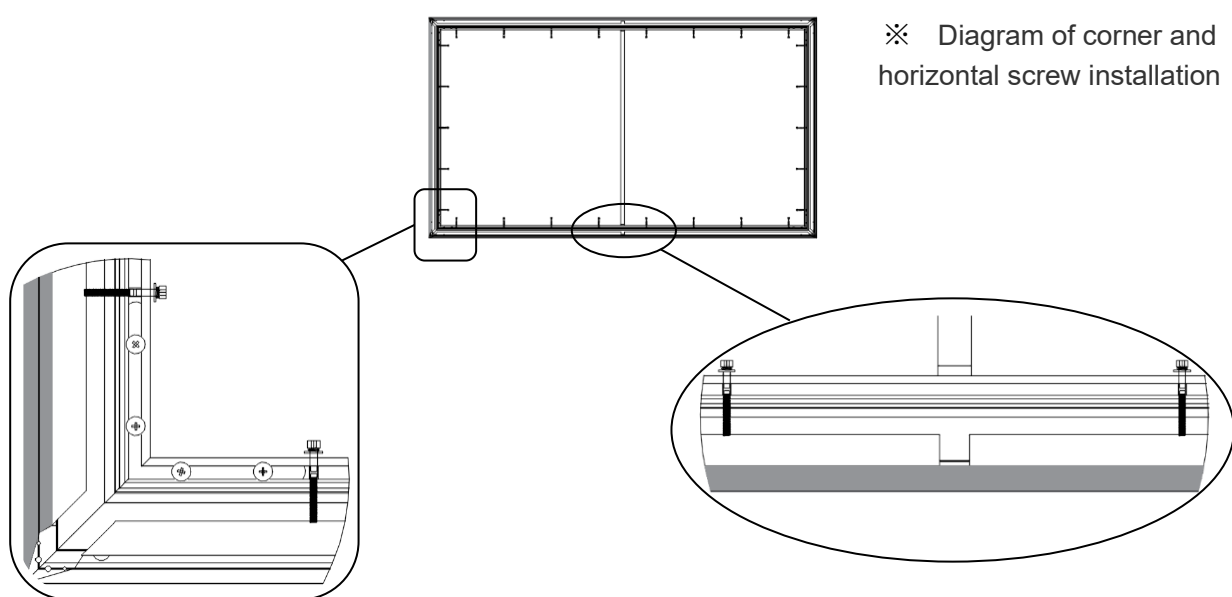
10. After installing the adjustment bar to the frame, lift the frame (two people) to check the screen surface. If there are visible waves on the screen surface, adjust the tightness of the screws to make the screen surface flat.

Check the screen surface to make sure it is flat.

DO NOT PROCEED TO THE EDGE TRIM INSTALALATION STEP IF THERE ARE ANY WAVES OR THE SCREEN SURFACE IS NOT FLAT.

Edge trim Installation

1. Place the **Edge trim** (D) on the four sides of the frame.
   (Note: The edge trim with the LOGO on the front should be on the bottom frame right of the screen and can also be distinguished by the product label on the backside.)
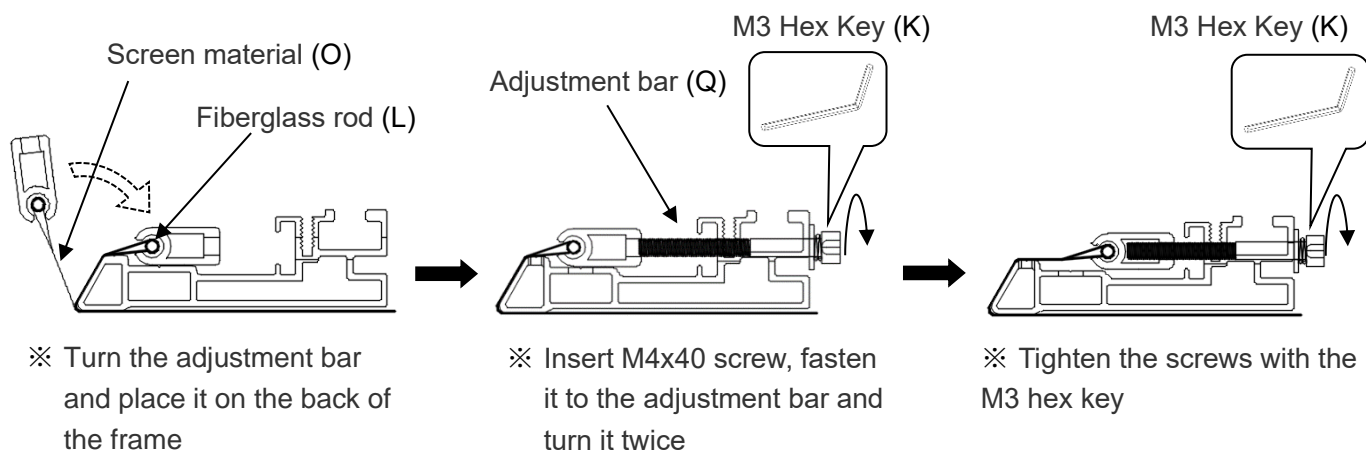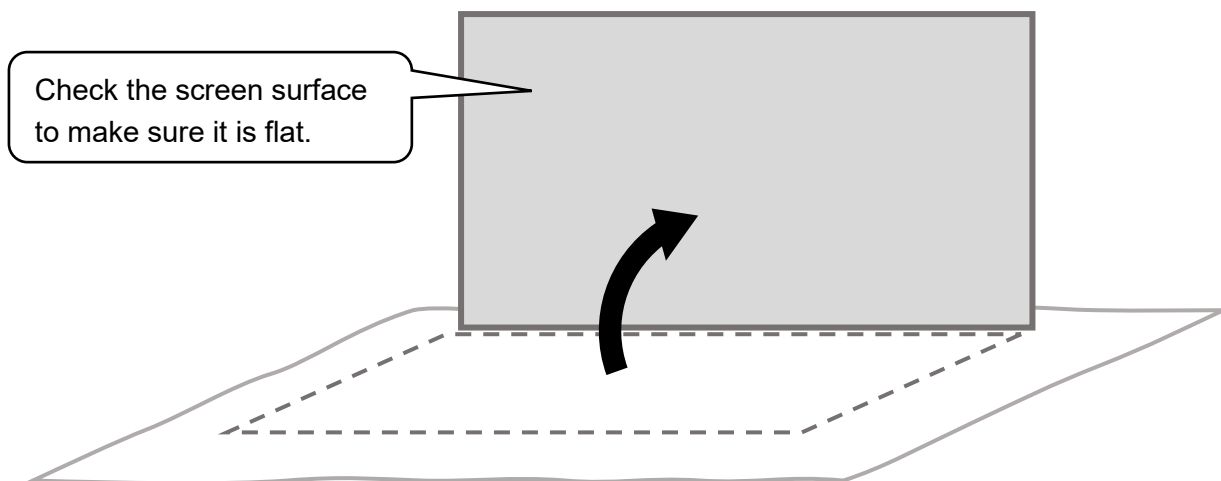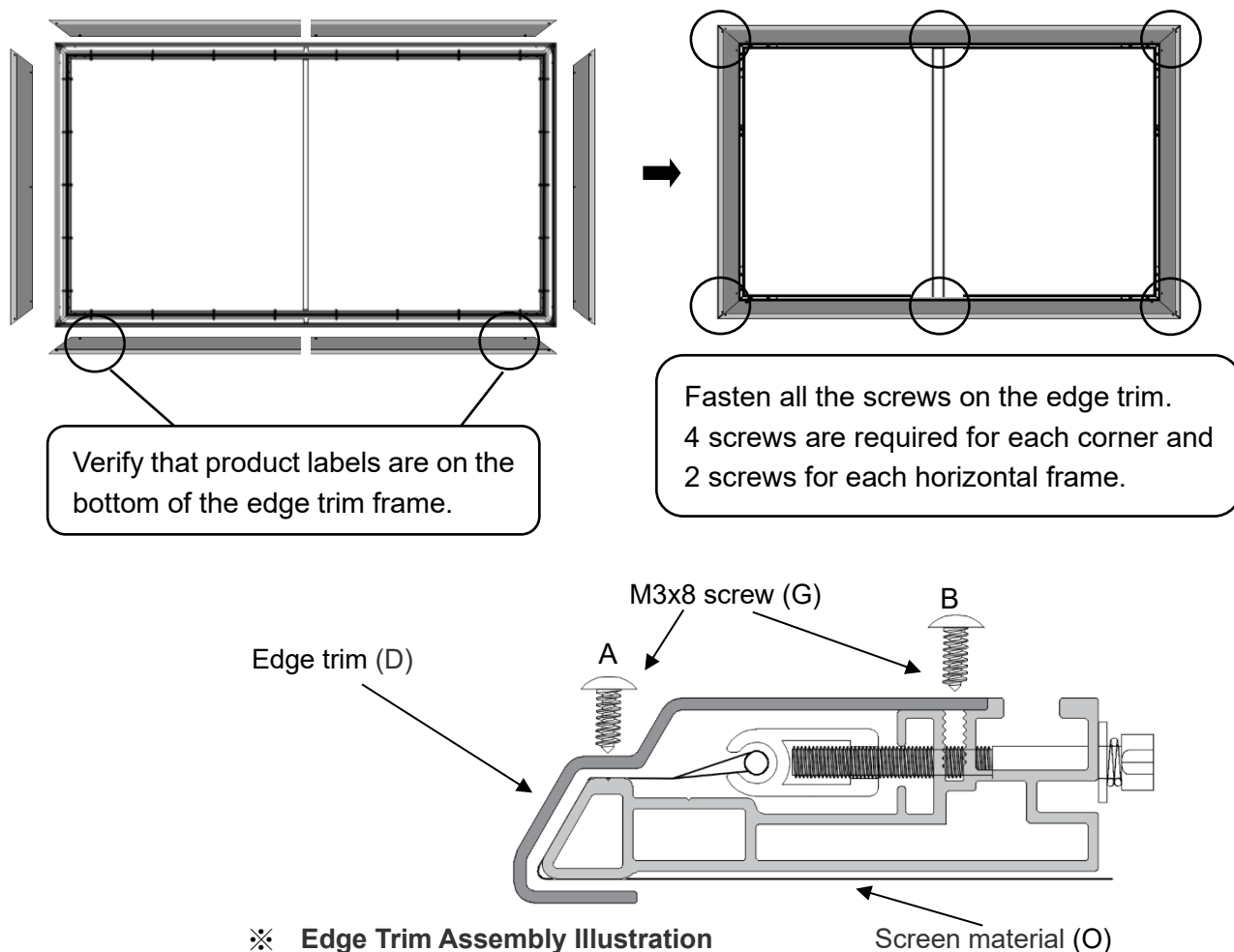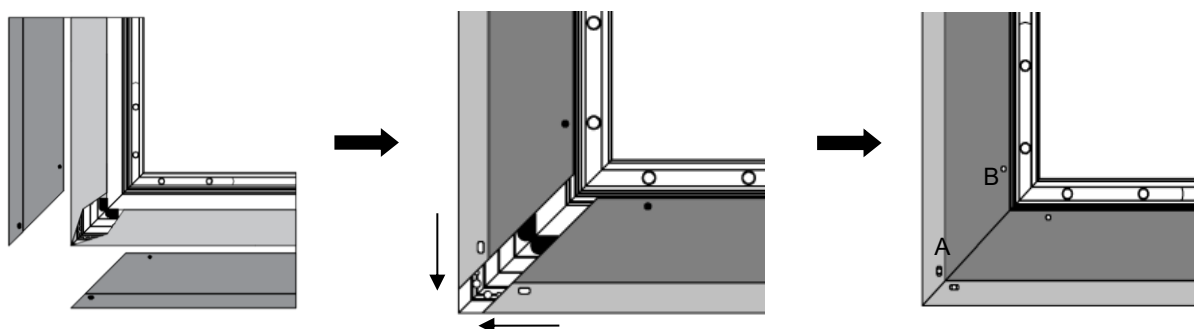2. Place all the trim pieces along the edge of screen material, adjust the trim so that the top and bottom trim pieces are touching and show no gaps in the center. Then align the **M3x8 screw** (G) with the A & B holes as shown in the illustration below.

Verify that product labels are on the bottom of the edge trim frame.

Fasten all the screws on the edge trim. 4 screws are required for each corner and 2 screws for each horizontal frame.

Edge trim (D)

M3x8 screw (G)

A

B

Screen material (O)

※ **Edge Trim Assembly Illustration**
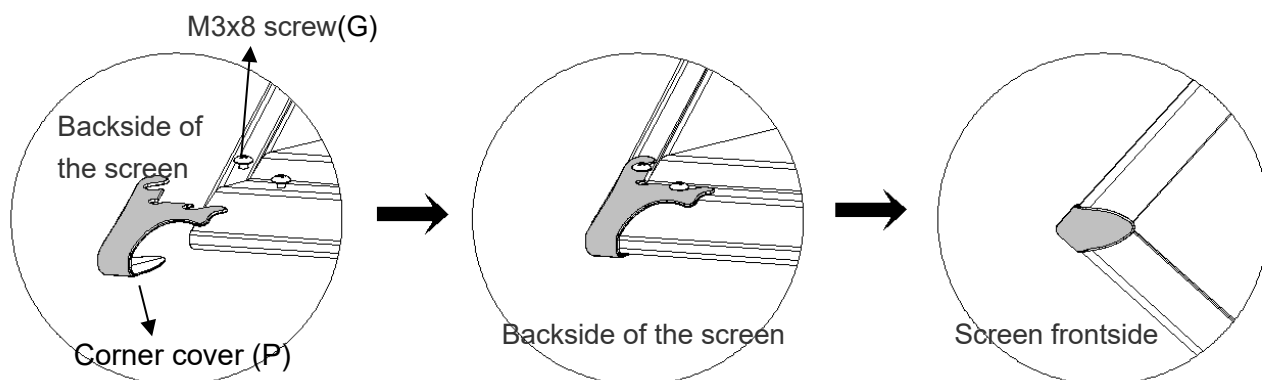
Edge trim corner installation

B°

A

Place the **Edge trim** (D) on the frame, overlap in the frame angle seam, and align them with the hole on the frame leaving no gaps. Then fasten screw A then B.
*** Leave approximately a 2mm gap on screw A for the next step.**

Corner cover installation

After the bezel trim has been installed, place a **corner cover** (P) on all four corners and finish fastening screw A on the corner bezel edge trim to secure it.

M3x8 screw(G)

Backside of
the screen

Corner cover (P)

Backside of the screen

Screen frontside

Protection Film Removal

After the edge trim has been installed, gently pull out the film in small sections avoiding the use of too much force to avoid scratching the back of the screen.
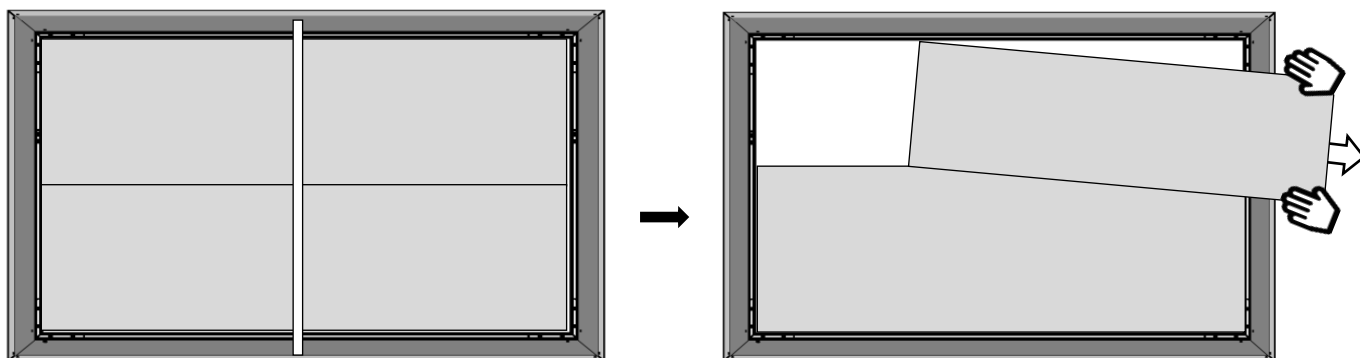
Wall bracket installation

Slide the **Sliding nut** (E) to a quarter of the Left/Right **vertical frame** (C), align the hole of **Wall bracket** (F) with the screw hole of the **Sliding nut** (E), then fasten with an **M5x8 screw** (H).

Note: The long groove is on the top.

Left/Right vertical frame (C)

M5x8 screw (H)

Top of screen

7" / 180 mm

78.9" / 2005 mm

28.9" / 734.5 mm

Wall bracket (F)
(The long groove facing up)

7" / 180 mm

Sliding nut (E)   Wall bracket (F)

Bottom of screen
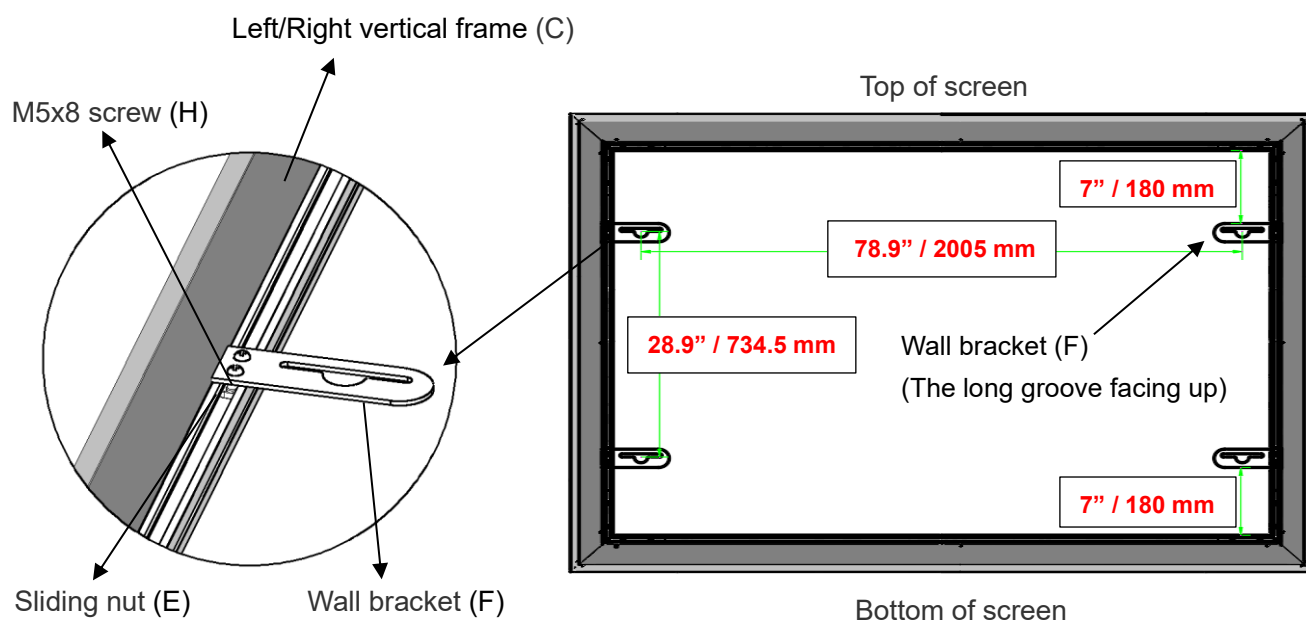
Notice to Installer:

Please use the following installation instructions to obtain superior optical performance from the Retro Reflective CLR®/ALR (Ceiling/Ambient Light Rejecting) StarBright™ 9 Screen.

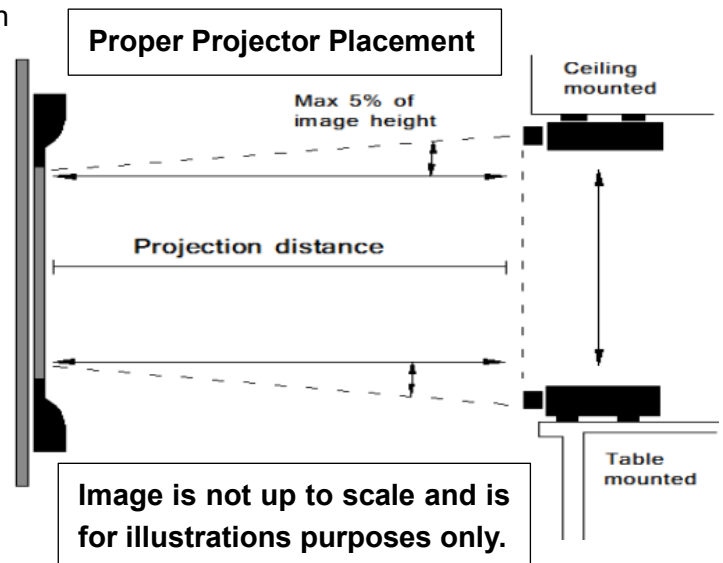The following guidelines should also be followed.

1. Minimum throw distance of 1.5 x the image width
   - Avoid a **hotspot** effect
   - **Light absorption** – The angle of incident light is too steep and will get absorbed by the optical lenses. This will create a very dim image and affect the overall picture quality.

2. Ambient light should not come from the same direction as the projector's light

3. Not compatible with ultra/short-throw projectors

4. Do not install the standard-throw projector at an angle that is greater than 5° off the vertical axis from the screen. The ambient light filtration layer in the material is designed to absorb off-axis light rather than reflect it.

Proper Projector Placement

Max 5% of image height

Projection distance

Ceiling mounted

Table mounted

Image is not up to scale and is for illustrations purposes only.

Installation

Pre-installation and preparation

1) Determine where the screen will be installed and mark four holes points according to the horizontal and vertical wall bracket distances, ABCD.
   - AB / CD **Horizontal** Distances are 78.9" (2005mm) apart
   - AC / BD **Vertical** Distances are 28.9" (734.5mm) apart.

※ *Please make sure that points AB and CD are measured horizontally, and points AC and BD are measured vertically.*

7" / 180 mm

AB/CD Horizontal Bracket Distance:
78.9" / 2005 mm

A

B

AC/BD Vertical Bracket Distance:
28.9" / 734.5 mm

C

7" / 180 mm

D
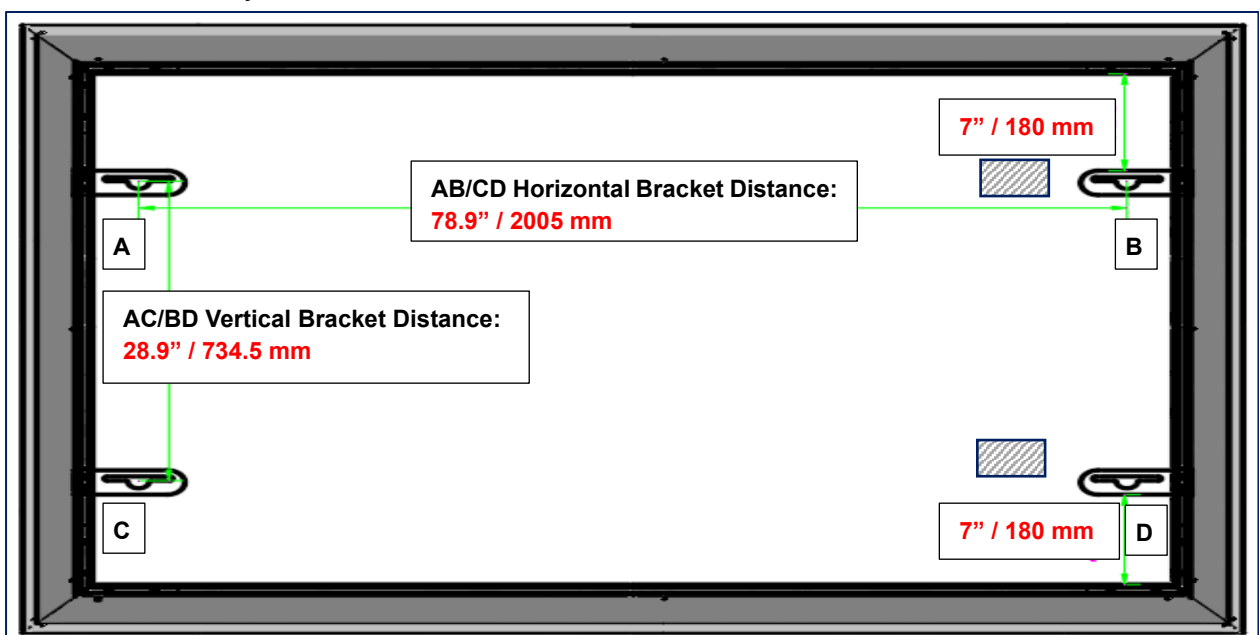
2)   Confirm all points are leveled and make any necessary adjustments.
3)   Drill pilot holes at the four points, A, B, C and D.
4)   Fasten a screw directly at each location if installing on a wood stud or use dry-wall anchors if installing on dry-wall. Install the screw and leave half-inch away from the wall.
5)   Two people lift the screen, first clamp the two lower wall brackets on the screws (C / D), and then slide the screen up to clamp the two upper wall brackets on the screws (A / B.
6)   Slide the screen left or right to assure it is fixed, then try to move the screen forward to confirm all four wall brackets on the screen are stable and properly secured to the screws.

(END)
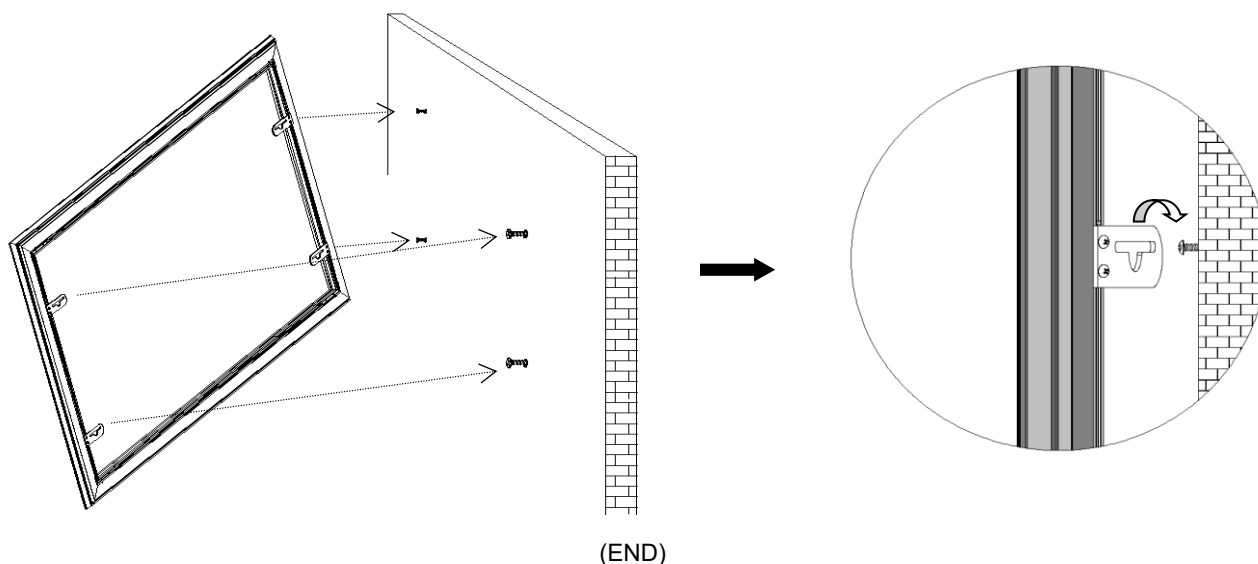
For more information, technical support or your local Elite Screens contact, please visit www.elitescreens.com