



Ambient Light Rejecting Fixed Frame Screen

## Polar Star™ Series

User's Guide



Thank you for choosing the *Elite Prime Vision, Polar Star™* fixed frame projection screen! The screen material included is our **ISF certified** Polar Star™, which is a reference quality front projection material precisely formulated for environments with minimal control over room lighting. It was designed to enhance picture brightness, offer accurate color fidelity, and improve contrast levels. The Polar Star™ is best for family rooms, educational facilities, conference rooms or any applications in which incident light is a factor.

In order for the Polar Star™ to maintain its projection qualities and optimum performance, please refer to the list below for proper maintenance and cleaning.

- Use a dry microfiber cloth to remove dust from the screen's surface.
- When cleaning, use a damp microfiber cloth with warm water to remove any marks.
- Never rub or apply pressure when cleaning the surface.
- Never attempt to use any solutions, chemicals or abrasive cleaners on the screen surface.
- In order to avoid damaging the screen, avoid touching it directly with your fingers, pens/pencils or any other sharp or abrasive objects.

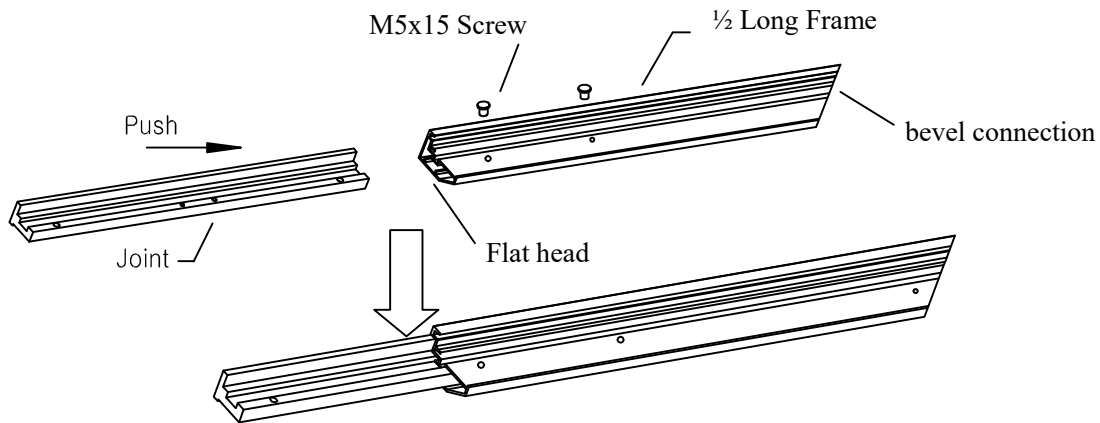
### Hardware and Parts List

A. Frame Parts	x 6 pcs (4 top/bottom frame pcs + 2 side frame pcs)
B. Screen Material	x 1 pc
C. Center joint	x 2 pcs
D. Elbow Joint	x4 pcs
E. Wall bracket	x 4 pcs
F. wood screw	x 8 pcs
G. Hollow wall anchor	x 8 pcs
H. M5x15 screw	x 16 pcs
I. Center Support Bar	x 1 - 2 pcs (depending on model/size)
J. Support joiner	x 2 - 4 pcs (depending on model/size)
K. Fix Plates	x 60 - 180 pcs (depending on model/size)

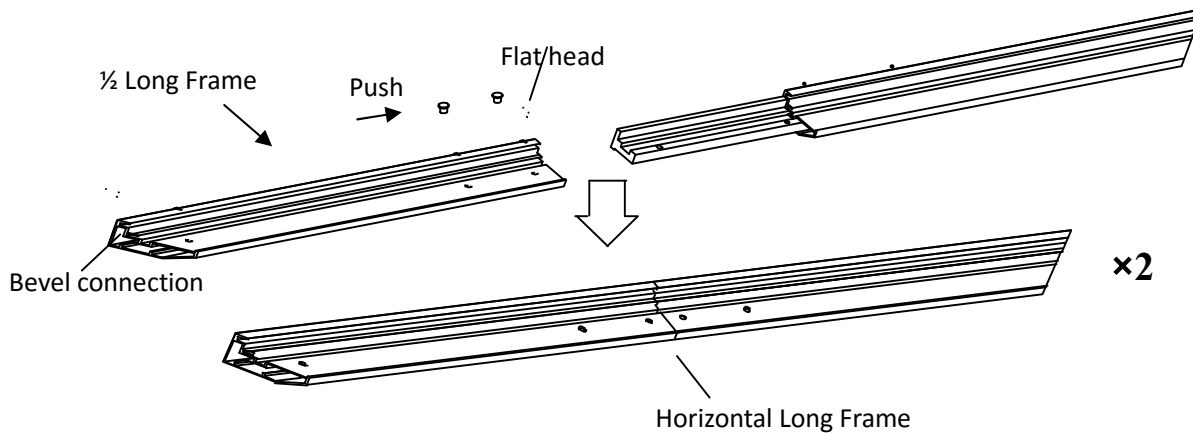
Note: Please make sure all parts are included in your package before proceeding to assemble your **Polar Star™** fixed frame projection screen.

## FRAME ASSEMBLY

1. Insert the **center joint (c)** connector to the horizontal frame piece with bevel connection and flat head, and then fasten it with two **M5x15 screws (h)**.



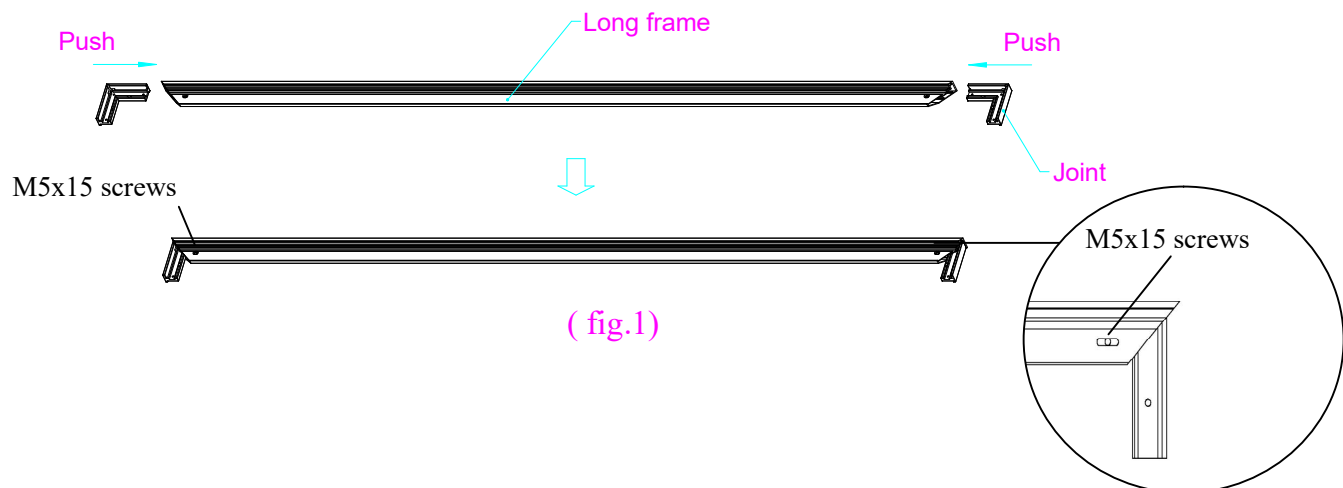
2. Insert the other horizontal frame piece to the center joint connector and then fasten it with two **M5x15 screws**.

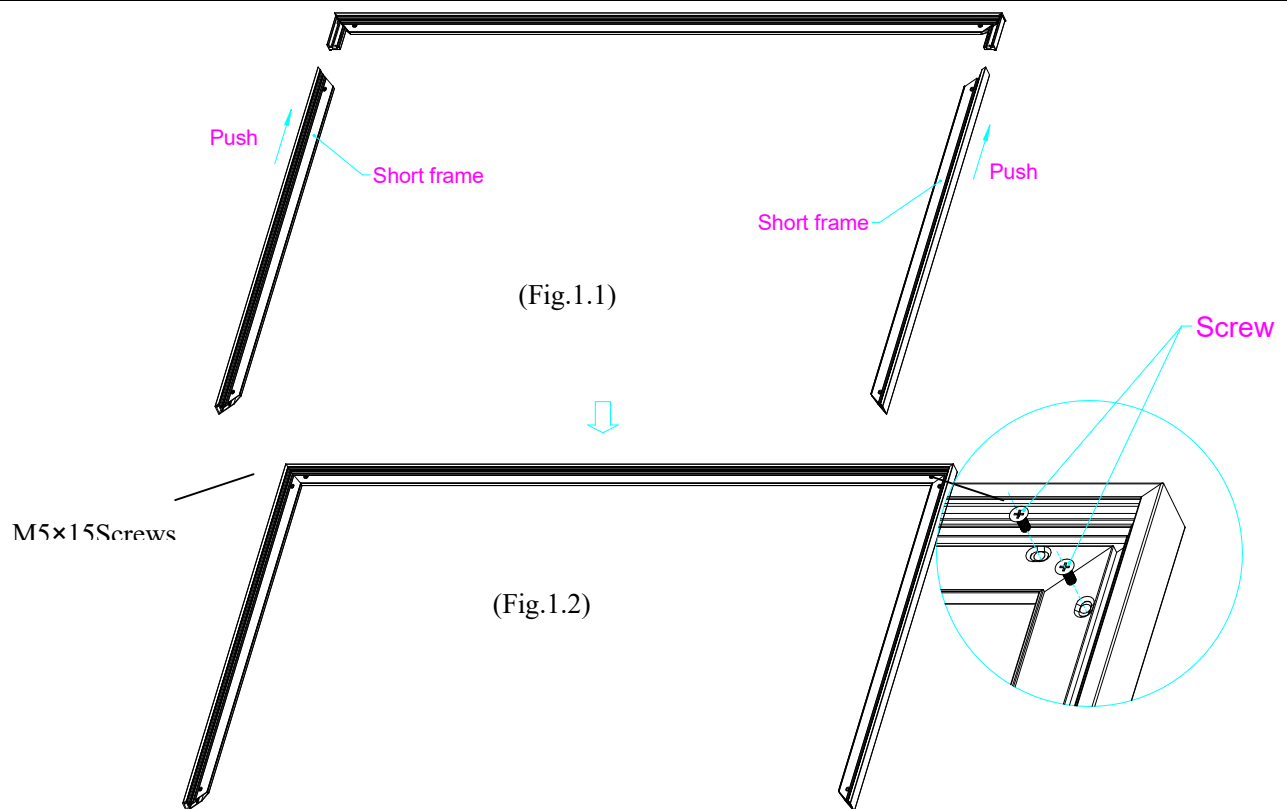


**Note: a. 2 long frames should be assembled for a screen.**

**b. Do not tighten the screws completely until all frame pieces have been assembled correctly.**

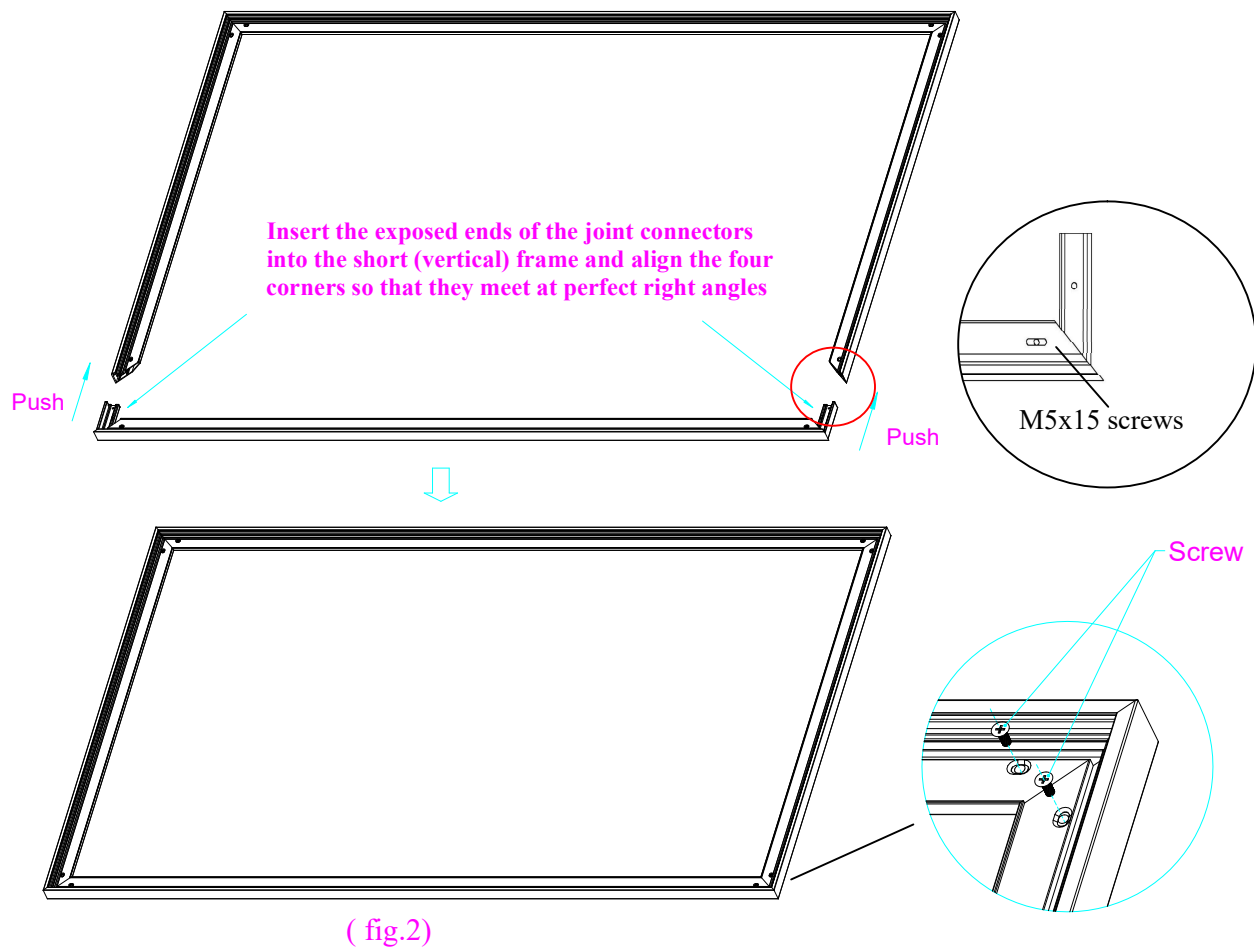
3. Insert both **elbow joint** connectors into the long horizontal frame and then fasten it with two **M5x15 screws** (see Fig.1). Then insert the short frames and fasten them with screws (Fig.1.2).





4. Join all four frame parts together following the steps shown below. **(Fig.2)**

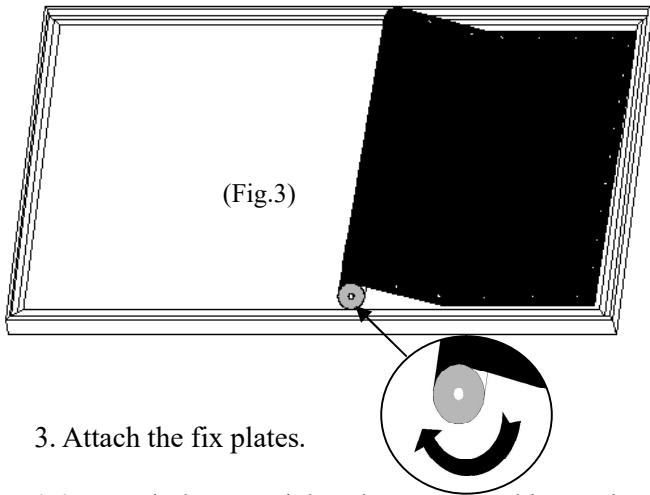
**Note: When assembled, please push simultaneously the two ends of the long frames.**



## Attaching the Screen Material to the Frame

1. Make sure the screen material and frame are both lying face down on a clean, dry, and non-abrasive surface.
2. Carefully unroll the material inside the frame. (Fig.3)

*Please note the material will be noticeably smaller than the frame, as the material must be stretched to create a sufficient amount of tension for perfect material flatness.*

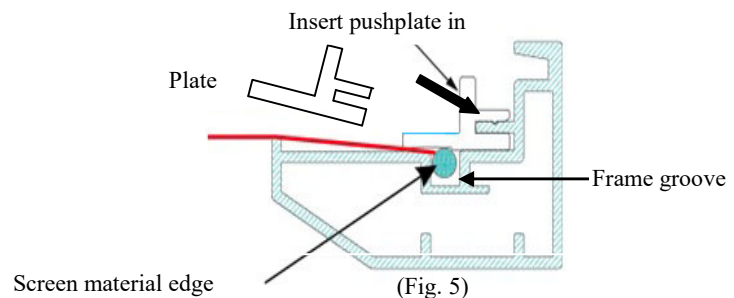
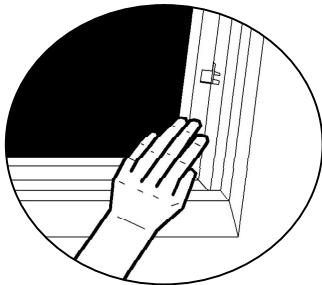


### Notes :

- Make note of the label to help distinguish the back and front side.
- Unroll the screen material face down
- Keep the screen material as close as possible to the frame and do not allow it to scratch

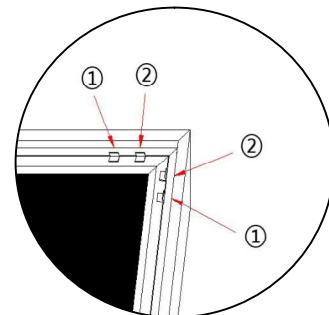
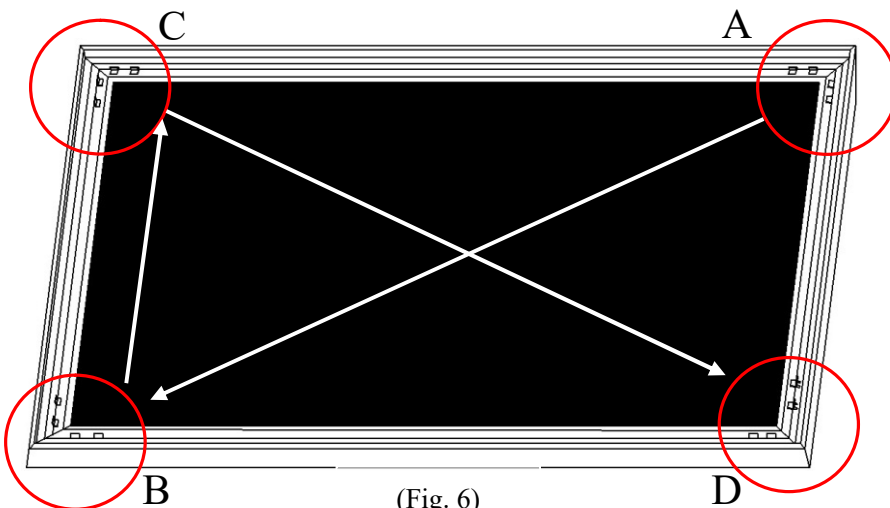
3. Attach the fix plates.

- (1) Stretch the material to the corner and insert the screen material's edge in the groove of the frame. While one hand holds the material in place the other hand snaps in the push plate (Fig.4-Fig.5).



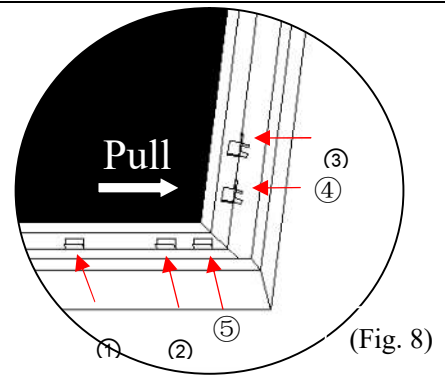
Schematic cross section of the frame

- (2) Begin by securing the four corners in the following sequence A→B→C→D (Fig.6).
- (3) Insert the fix the plates as shown on Fig. 5. Fix plate ① is about 10cm away from the frame's corner. Fix plate ② is about 5cm away. (Fig.7)

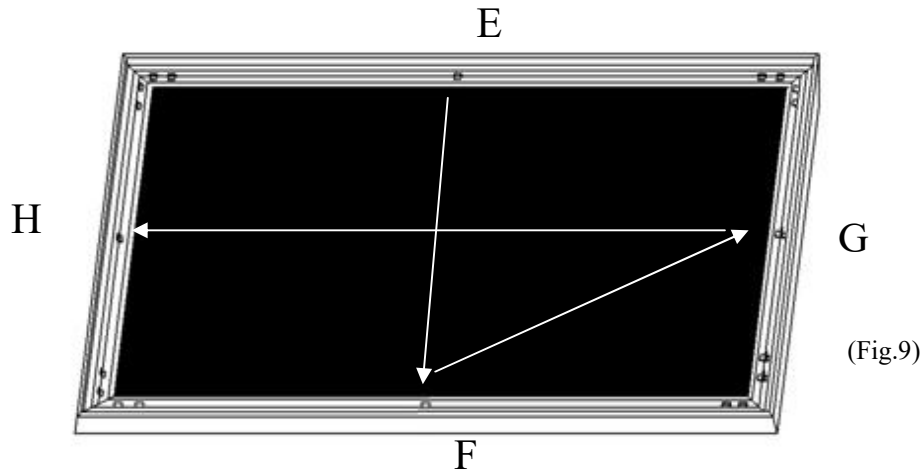


**Tip for attaching the last corner (D):**

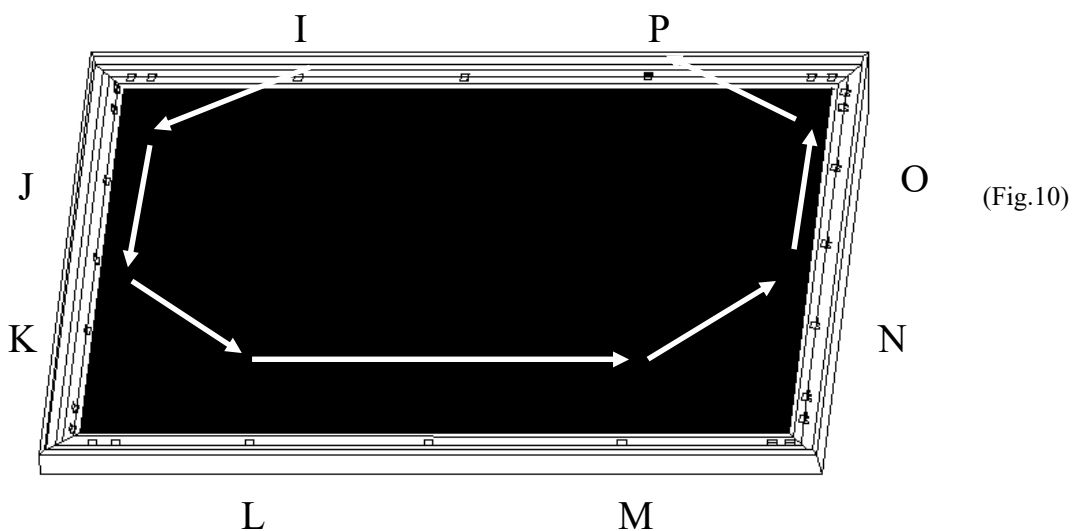
1. Position yourself left of location ①.
2. Pull the material to the corner of the frame with your hand while your left hand snaps in the fix plate on location ①(the third red dot).
3. Then insert and snap in the fix plate on location②.



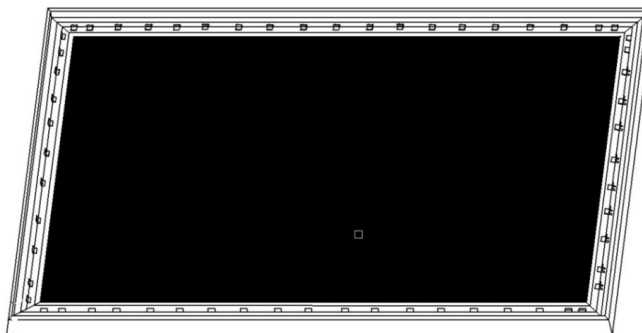
- (4) Place a fix plate in the center of each side in the following order E→F→G→H.(Fig.9)



- (5) Next, fasten a fix plate on the center of each frame side in the following order I→J→K→L→M→N→O→P as shown in Fig.10.



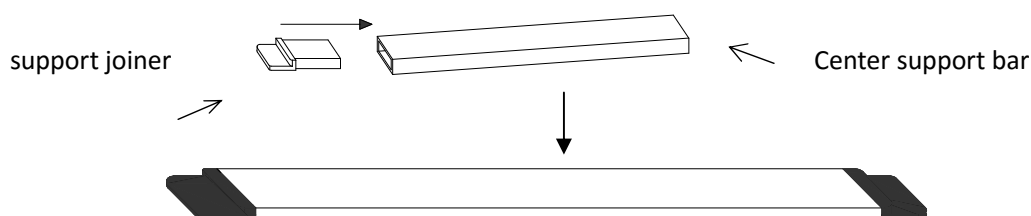
(6) Fasten the remainder of the fix plates in the empty locations in the red markings to complete attaching the screen material. (Fig.11)



(Fig.11)

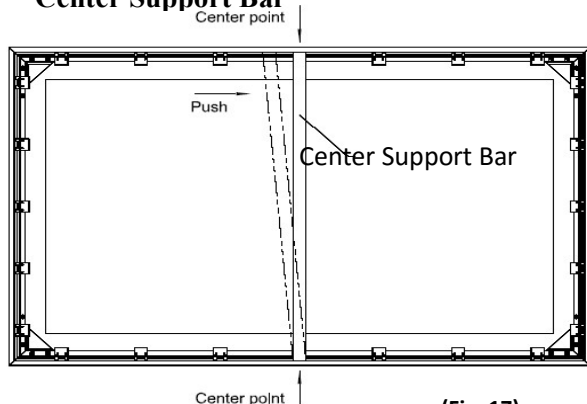
### Center Support Bar Installation

1. Insert the **support joiner** into each end of the center support bar.



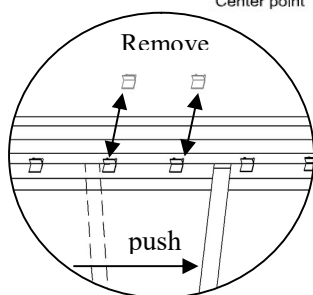
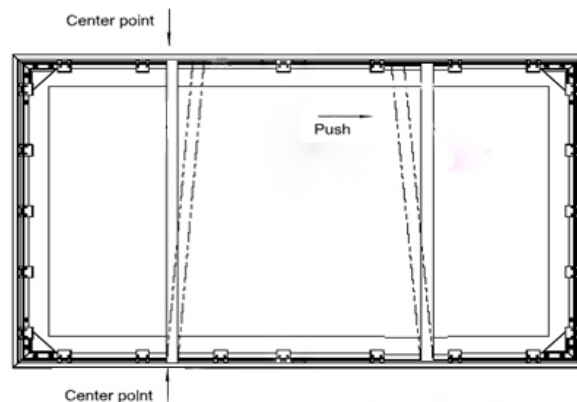
2. Insert the **Center Support Bar** into the upper top groove on the back of the frame (**not the one where the fix plate inserts**) with the bottom end near the approximate center point of the frame and rotate it in at an angle so that both ends of the bar are in alignment with the groove (see Fig. 17 below for details).

**Diagonal models 135" and below use 1 x Center Support Bar**

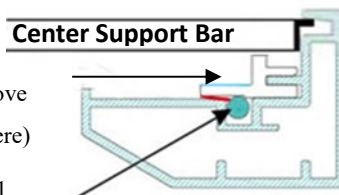


(Fig. 17)

**Diagonal models above 135" require 2 x Center Support Bars**



Fixed plate groove  
(do not insert here)  
Screen material



3. Slide the top end of the bar into the top center point of the frame to complete the center support bar installation. **This will provide added stability to your frame and added tension to the material.**

## Notice to Installer:

Please use the following installation instructions to obtain superior optical performance from the Polar Star™ Angular Reflective ALR (Ambient Light Rejecting) Screen.

- Angular-Reflective material is not compatible with ultra/short-throw projectors
- Minimum lens throw ratio 1.5x image width
- Ambient light must not come from the same direction as the projector

*Since angular-reflective means that the projected image will reflect at the mirror-opposite angle, it is important to position the projector so that the viewer will get the best possible image.*

**Step 1:** Establish the general “eye level” of the viewers

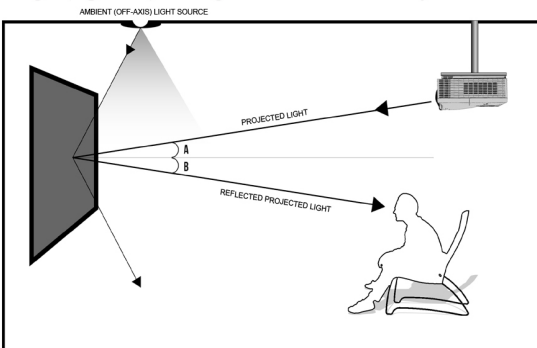
**Step 2:** Set the appropriate projection level

**Step 3:** Adjust the screen height level and projection angle

Input Angle (A) = Output Angle (B) aligns with the viewer’s angle

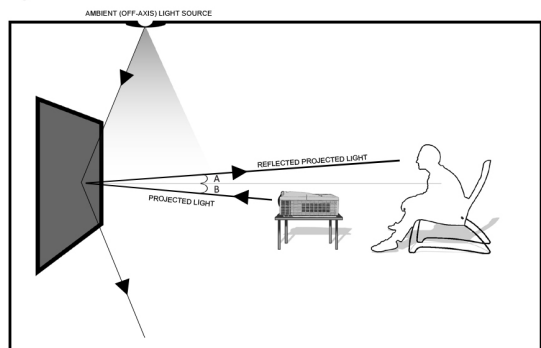
### Correct Installation Examples

**Projector Ceiling Installation:** Make sure the projector (*light in*) is angled (A) to reflect (B) at the mirror-opposite angle (*light out*) to align with the viewer’s eye level.



PROJECTOR CEILING INSTALLATION

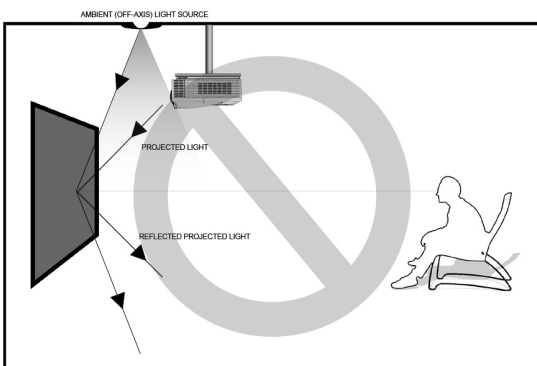
**Projector Table Top:** Make sure the projector (*light in*) is angled (A) to reflect (B) at the mirror-opposite angle (*light out*) to align with the viewer’s eye level.



PROJECTOR TABLE TOP INSTALLATION

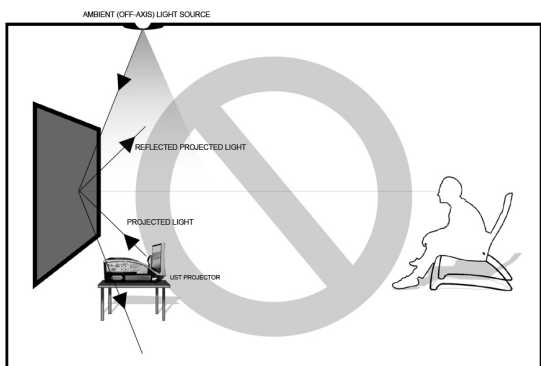
### Incorrect Installation Examples

#### Ceiling Mounted Short-throw Projector



CLOSE UP CEILING PROJECTOR ILLUSTRATION (NOT COMPATIBLE)

#### Tabletop Ultra-Short throw Projector



ULTRA SHORT THROW PROJECTOR ILLUSTRATION (NOT COMPATIBLE)

**Note:** Improper installation will result in light loss and produce a dark image. This is due to the projector’s light reflecting in the wrong direction.

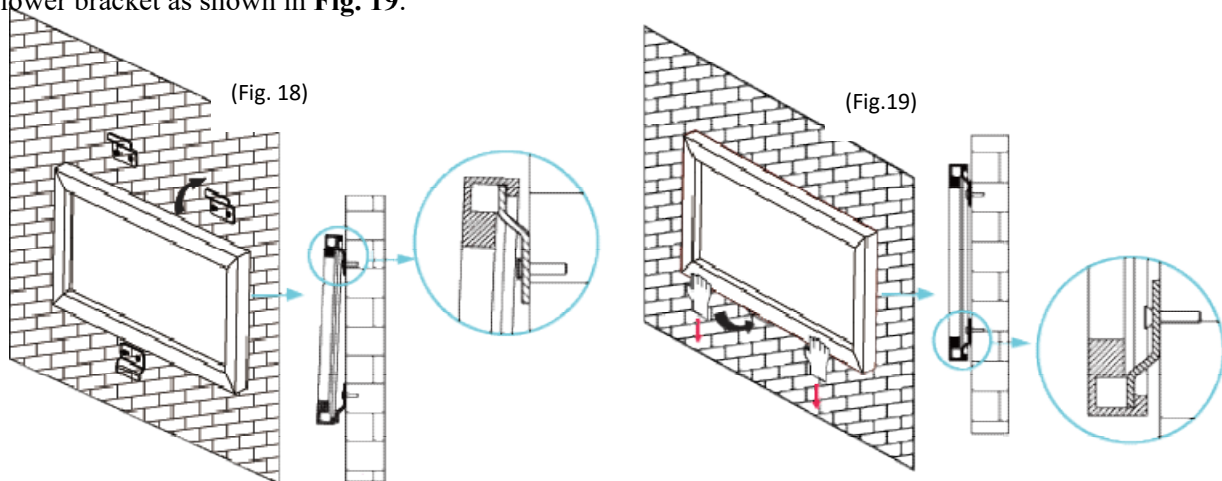
*Images are not up to scale and are for illustration purposes only.*

## Installation

1. Locate your desired installation location with a stud finder (recommended) and mark the drill-hole area of where the screen is to be installed.
2. Drill a hole with the proper bit size according to the wood screws included.
3. Line up the wall brackets with the drilled holes on the installation location and screw them in using a Phillips screwdriver.

**Note: Use 2 top wall brackets on diagonal sizes below 135", and use 3 top wall brackets on diagonal sizes 135" and above.**

4. Position the fixed frame screen onto the top wall brackets as shown in **Fig. 18** and push down at the center of the bottom frame to secure the installation.
5. The design of the wall brackets allows the frame to slide over them through its sides. This is an important feature of the installation design as it allows your screen to be properly centered.
6. Using both hands finish the installation by pushing the lower portion of the fixed frame screen into the lower bracket as shown in **Fig. 19**.



## CAUTION

**Please follow these instructions carefully to ensure proper maintenance and safety of your Screen.**

1. When hanging the screen up, please make sure that no other objects such as power switches, outlets, furniture, ladders, windows, etc. occupy the space designated for your Fixed-Frame screen.
2. Regardless if the screen is hung on or installed into the wall, make sure that the proper mounting anchors are used and that the weight is supported appropriately by a strong and structurally sound surface just as any large and heavy picture frame should.
3. Frame parts are made of high quality velour-surfaced aluminum and should be handled with care.
4. When not in use, cover over the screen with a furniture sheet to protect it from dirt, grime, paint or any other impurities.
5. When cleaning, use a damp soft cloth with warm water to remove any marks on the frame or screen surface.
6. Never attempt to use any solutions, chemicals or abrasive cleaners on the screen surface.
7. In order to avoid damaging the screen, avoid touching it directly with your fingers, tools or any other sharp or abrasive objects.
8. Spare Parts should be placed out of reach of small children in accordance with household safety guidelines.

**For a local Elite Prime Vision contact or Technical Support, please visit**

**[www.EPVscreens.com](http://www.EPVscreens.com)**