



Stewart AT 1.5 Fixed Frame Tensioned and Grommet Screen Owner's Manual

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Stewart AT 1.5 Fixed Frame Tensioned and Grommet Screen



TO THE OWNER

Congratulations on purchasing the finest optical viewing screen in the world. Your handcrafted AT 1.5 projection screen has been carefully inspected to ensure you will have an optimal viewing experience that will last many years. Please take a moment to review this manual. It will guide you through the installation and the operation of your screen and will also provide you with detailed instructions on how to care for your screen's viewing surface. From all of us at Stewart Filmscreen, we would like to thank you for choosing AT 1.5. Should you have any questions, please don't hesitate to contact our customer service department at 1 (310) 784-5300, or toll free at 1 (800) 762-4999. We're here to help.

Frank Gomez

Fixed Frame Masking Specialist

ABOUT THE AT 1.5 SCREEN

The AT 1.5 fixed frame supports all projection applications. The screen features angled corners and a beveled edge that brings the image area closer to the frame. The tensioned and grommet mounting assures perfect lay-flat characteristics of the screen. The Velux™ finish is designed to absorb any projector overscan.

USING THIS MANUAL FOR INSTALLATION

If you are using this manual to install the AT 1.5, you should be aware that it describes procedures for several types of mounts. You must refer to the section for the type of mounting system you are utilizing. In addition, there are general instructions for attaching the screen to the frame that are provided in a separate section. This procedure is to be performed at a specific step in the overall sequence. For the instructions related to your specific mount type, refer to the appropriate page:

- Wall Board Mount (page 9)
- Wall Plate Mount (page 11)
- Eye Bolt (Hanging) Mount (page 12)
- T-Stand (Self-Supporting) Mount (page 14)
- Aperture Mount (page 15)

At the designated point in the installation, you will need to refer to the general instructions for Attaching the Screen to the Frame, pages (16-18).

PREPARING THE INSTALLATION

Before proceeding with the installation of this screen, take the time to thoroughly read and understand these installation instructions. Failure to comply with the instructions and guidance contained in this manual may result

in voiding your warranty.

SPECIFICATIONS

Specifications regarding the individual screen dimensions, weight, etc., are provided by the factory when the unit is ordered

Before beginning the installation

- Make sure there is a clean surface on which to unroll the screen and assemble the frame.
- Check the size and weight of the screen to be installed so that you can plan for the number of people required for installation. You will need at least two people to mount the smaller screens; more are needed for larger, heavier screens.

What's inside the box?

Inside your AT 1.5 unit box, you will find everything you need to get started on enjoying your Stewart screen:

- Screen material, rolled up in a tube
- Disassembled frame with all the hardware needed to reassemble
- Packing material
- Specified optional mounting hardware
- Quick Start Guide

You will need

- A level
- A drill
- A drop cloth
- Tools for tightening fasteners
- Lint-free, clean cloth gloves for handling the screen
- Fasteners appropriate for the surface on which the screen is being mounted
- Ladders for the personnel supporting the screen during the mounting process
- Lift or scaffolding, if the screen is to be flown

PREPARING THE INSTALLATION (CONTINUED)

NOTE

Bolts and other fasteners for the screen are standard gauges and sizes used in the U.S., regardless of the installation country. For this reason, sizes are in inches rather than metric measurements.

Unpacking

Be sure to unpack carefully in a clean area. Use special care when handling the screen so that it does not become soiled or damaged. If you plan to repack your screen and hardware for transportation to another location, you may wish to photograph or make a note of how it was packed. Keep the packing material.

CAUTION

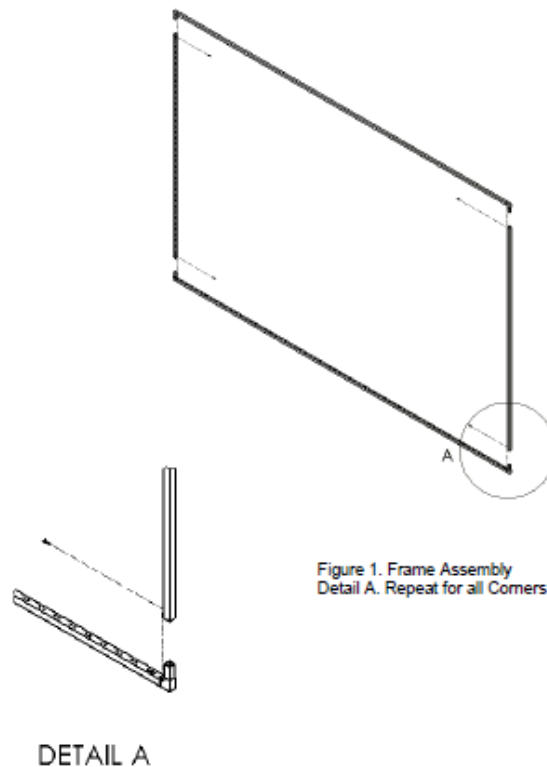
Do not stand on the screen tube or store it on its end. This will cause screen damage. If you are not going to install

the screen immediately, make sure it remains horizontal during storage. Note: Failure to comply with the instructions and guidance contained in this manual may result in voiding your warranty.

FRAME ASSEMBLY INSTRUCTIONS

1. Connect the frame members by matching numbered dots on the ends of the members (see Figure 1).

Secure the frame members with the supplied 1/4-20 x 3/4" hex head bolts.



WALL BOARD MOUNT

NOTE

Professional mounting techniques should be used. Stewart Filmscreen cannot be liable for substandard or faulty installations. Failure to comply with the instructions and guidance contained in this manual may result in voiding your warranty.

1. Lay assembled frame face down on a clean surface (see Figure 2).

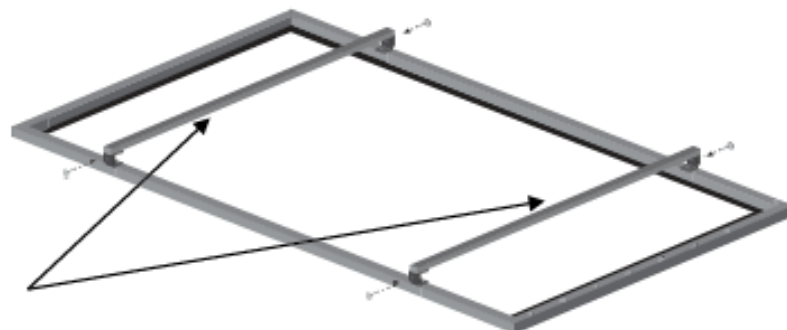


Figure 2: Temporarily Attaching Wall Boards to the Frame

2. Fit wall boards to the outside of the brackets already attached to the frame.
3. Bolt wall boards to brackets using the supplied 1/4-20 x 3/4" hex head bolts (see Figure 3).

Note

Depending on the size of the screen, the number of wall boards may vary. This temporary attachment of the

wall boards to the frame helps to position the frame and brackets on the wall.

4. Without the screen material attached, position the frame and boards on the wall.

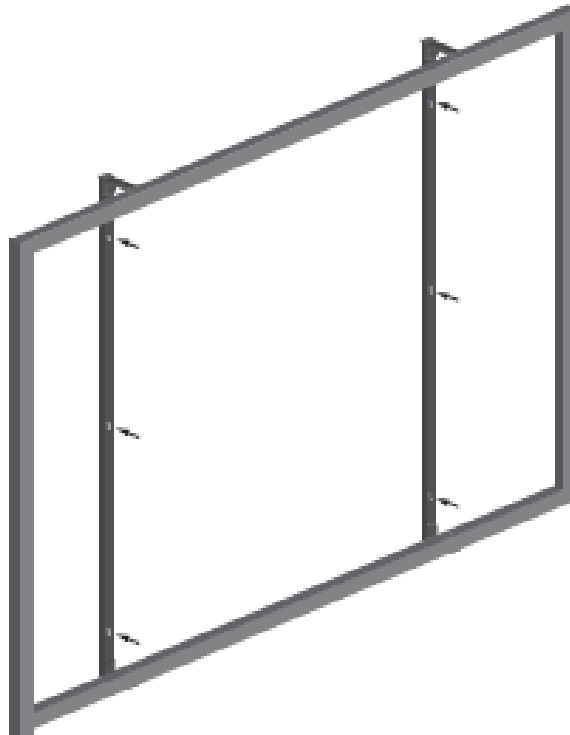
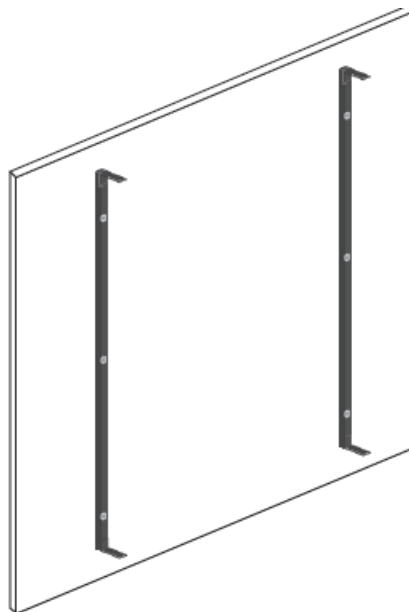


Figure 3: Positioning the Frame and Wall Boards to the Wall

5. Make sure the unit is level and plumb. You may need to use shims between the boards and the wall to achieve vertical plumb.
6. Align the board holes with wall studs.
7. Mark and drill holes in the wall that align with the board holes.
8. Remove the boards from the frame and attach them to the wall using the provided hardware where applicable or other such appropriate fasteners (lag bolts, wall anchors, molly bolts, wood carriage screws, etc. (refer to Figure 4.)



9. Attach the screen to the frame (see pages 16-18).
10. Attach the frame/screen assembly to the previously mounted wall boards on the wall using the 1/4-20 x 3/4" hex head bolts (refer to Figure 5).

Note

On some large custom sized frames the use of additional “back support braces” may be included. These vertical support braces assure parallel top and bottom frame member alignment once the screen has been attached to the frame. Do not install the screen/frame without the required back braces.

CAUTION

Be careful not to touch or scratch the viewing surface.

WALL PLATE MOUNT**NOTE**

Professional mounting techniques should be used. Stewart Filmscreen cannot be liable for substandard or faulty installations. Failure to comply with the instructions and guidance contained in this manual may result in voiding your warranty. The Wall Plate Mount allows you to install the screen frame as close as possible to wall. In order to do so, you will need to install the screen material after the frame has been mounted.

1. Prepare wall for mounting by ensuring you have wall studs located in same location as your AT 1.5 frame (see Figure 6).
2. With the help of another person, carefully lift the frame and place against the wall. A third person will then need to fasten the top frame member to the wall, first starting with the middle-most wall plate and going to the sides (see Figure 7).



3. After the top frame member is secured, you may fasten the rest of the members in any order desired.
4. Attaching the screen to the frame (see pages 16-18).

Figure 6. Wall Studs in Location of Wall Plate with no Screen Installed at this Step. (Wall Studs Shown for Clarity)

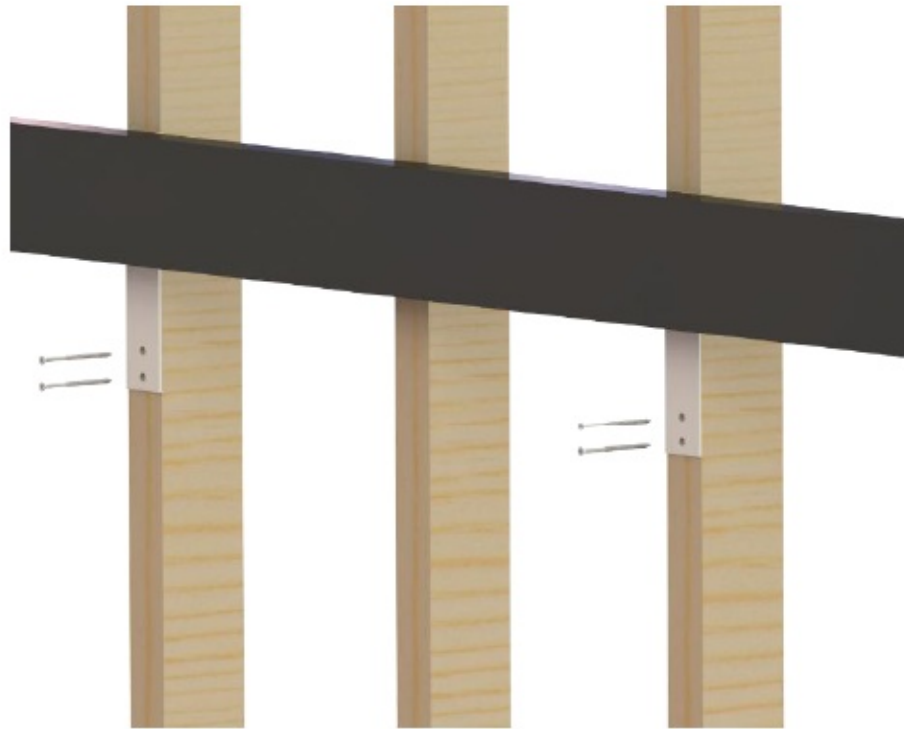


Figure 7. Fasteners Being Attached to Top Frame Member

EYE BOLT (HANGING) MOUNT

NOTE

Professional mounting techniques should be used. Stewart Filmscreen cannot be liable for substandard or faulty installations. Failure to comply with the instructions and guidance contained in this manual may result in voiding your warranty.

1. Attach the screen to the frame (see pages 16-18).
2. Use the Eye Bolt Mount to suspend the screen. Eye bolts are already secured to the frame, making your AT 1.5 ready for installation to an appropriate surface (refer to Figure 8).

Note

A false ceiling is not intended to support the weight of an AT 1.5. Contact a Stewart representative for more information.

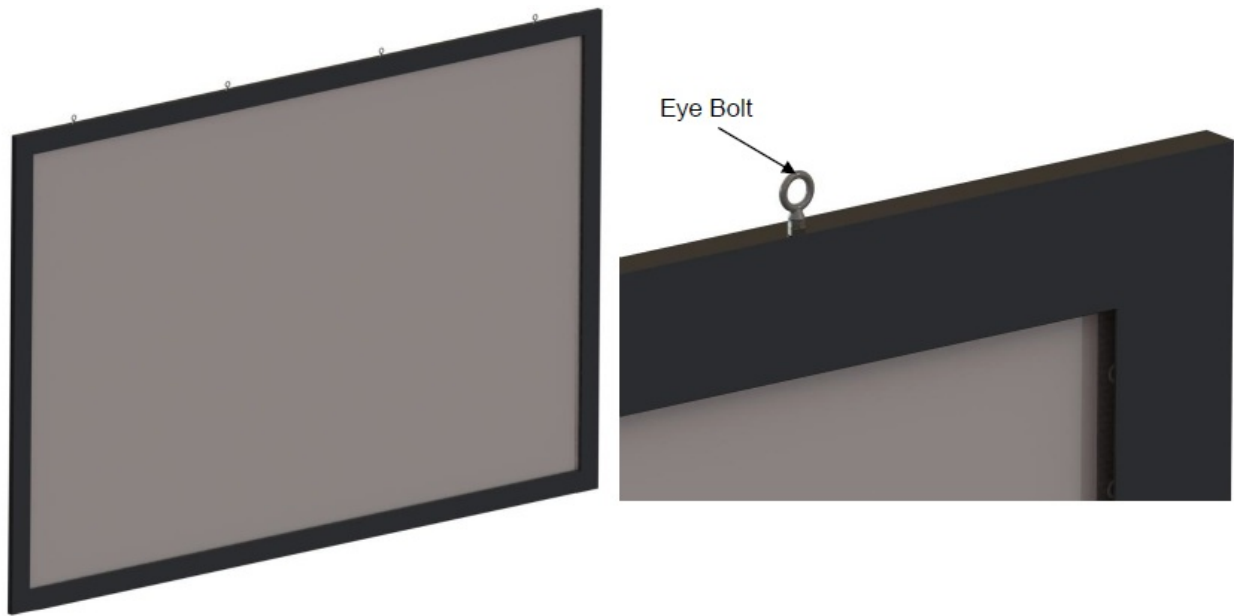


Figure 8. Eye Bolts Mounted Securely to Frame

NOTE

On some large custom sized frames the use of additional “back support braces” may be included. These vertical support braces assure parallel top and bottom frame member alignment once the screen has been attached to the frame. Do not install the screen/frame without required back braces.

CAUTION

Be careful not to touch or scratch the viewing surface.

EYE BOLT (HANGING) MOUNT (CONTINUED)

If the installation requires the use of a scaffold or lift, one person on the floor must work together with the person on the scaffold to rotate the screen cylinder to unroll the screen. You also may need a third person on the ground to move the scaffold or lift.

T-STAND (SELF-SUPPORTING) MOUNT

NOTE

Professional mounting techniques should be used. Stewart Filmscreen cannot be liable for substandard or faulty installations. Failure to comply with the instructions and guidance contained in this manual may result in voiding your warranty.

1. Attach the screen to the frame (see pages 16-18).
2. Use the T-Stand knobs provided to first attach the vertical members to each base, then attach the finished screen (frame/screen assembly) to the T-Stands. The through holes on each vertical member should run parallel to the base (refer to Figure 9).
3. Hand-tighten the knobs.

NOTE

On some large custom sized frames the use of additional “back support braces” is required. These vertical support braces assure parallel top and bottom frame member alignment once the screen has been attached to the frame. Do not install the screen/frame without the required back braces.

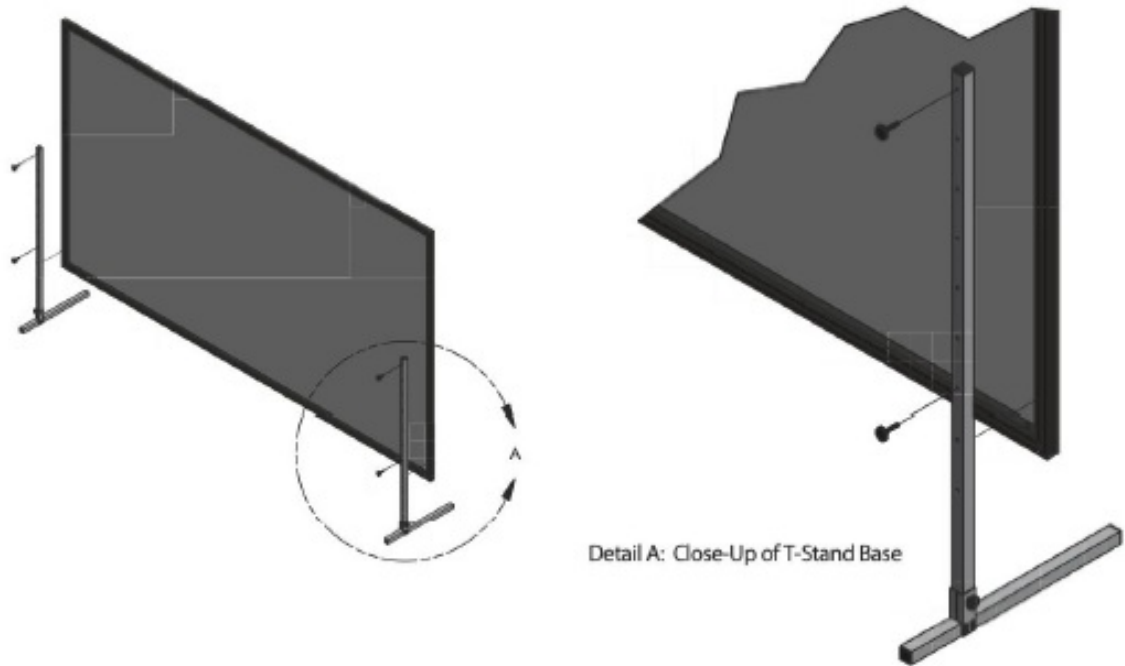


Figure 9. Attaching T-Stand Knobs

CAUTION

Be careful not to touch or scratch the viewing surface.

APERTURE MOUNT

NOTE

Professional mounting techniques should be used. Stewart Filmscreen cannot be liable for substandard or faulty installations. Failure to comply with the instructions and guidance contained in this manual may result in voiding your warranty. The Aperture Mount allows you to install the screen into an opening in a wall or wall unit. You will need access to the back of the screen to install the attachment hardware.

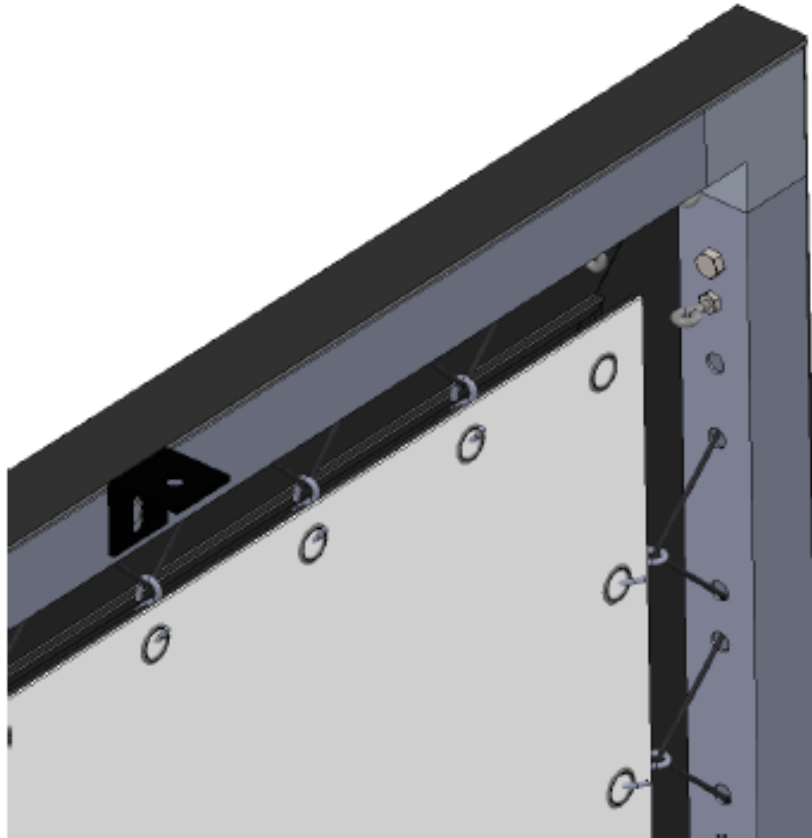


Figure 10: Installing Frame/Screen Assembly - Rear View, Close Up

1. Prepare the aperture.
2. Attach the screen to the frame (see pages 16-18).
3. Carefully insert the frame (with the screen already attached) into the aperture. Take care so that you do not damage the screen.
4. Install the frame/screen assembly in the aperture using the attached mounting brackets and appropriate fasteners (see Figure 10).

CAUTION

Be careful not to touch or scratch the viewing surface.

ATTACHING THE SCREEN TO THE FRAME

The general procedure for attaching lace and grommet screens to the frame is the same for all mounting and screen types. Specific notes for wraparound screens and owner supplied frames are as follows:
Attach the screen to the top left corner of the frame first, then along the top, then the sides, then the bottom. Read all of the tips below and follow the sequence.

Note

Read all instructions before beginning. Have all tools and equipment ready. During packing and transit, the screen may shrink. Stewart vinyl screen material has some elasticity and will stretch and spring back. The grommet edge binding will not stretch past the manufactured outer dimensions. After the screen is attached to the frame, some tension will be apparent at each grommet. If you have concerns, please read the section, This Screen Seems too small (see page 19).

CAUTION

To avoid damage to the screen use caution when handling the screen roll. Carry the roll by the ends only. Do not place the screen roll on steps or any uneven surface as the pressure can make permanent indentations in the screen.

Handle the screen carefully. Avoid contact of the screen fabric with fingernails. Grasp the screen edge binding only. As you finish attaching each section, take a moment to pause and inspect the screen to ensure that it is not pulling or stretching in such a way that it may tear.

- The screen is held onto a core tube by means of tie cords so that the screen material remains safe during transit. You can cut one to two tie cords before starting to attach the screen as it is unrolled so that there is no danger of pulling out a grommet when the screen is unrolled.
- As the screen is being unrolled, it will be necessary to slide the extension post (at the bottom of the screen) along the floor to keep the screen vertical as well as continuing to cut more tie cords as you unroll.
- Start at the top left corner, using the techniques described below (see Figure 11).
- Attach S-hooks to the grommets to make a proper corner fit. Starting at the top left corner, attach two to six hooks down the side and across the top. Do not allow the weight of the screen to rest on any one hook during this time.
- Continue along the top, using the techniques described on the next page.

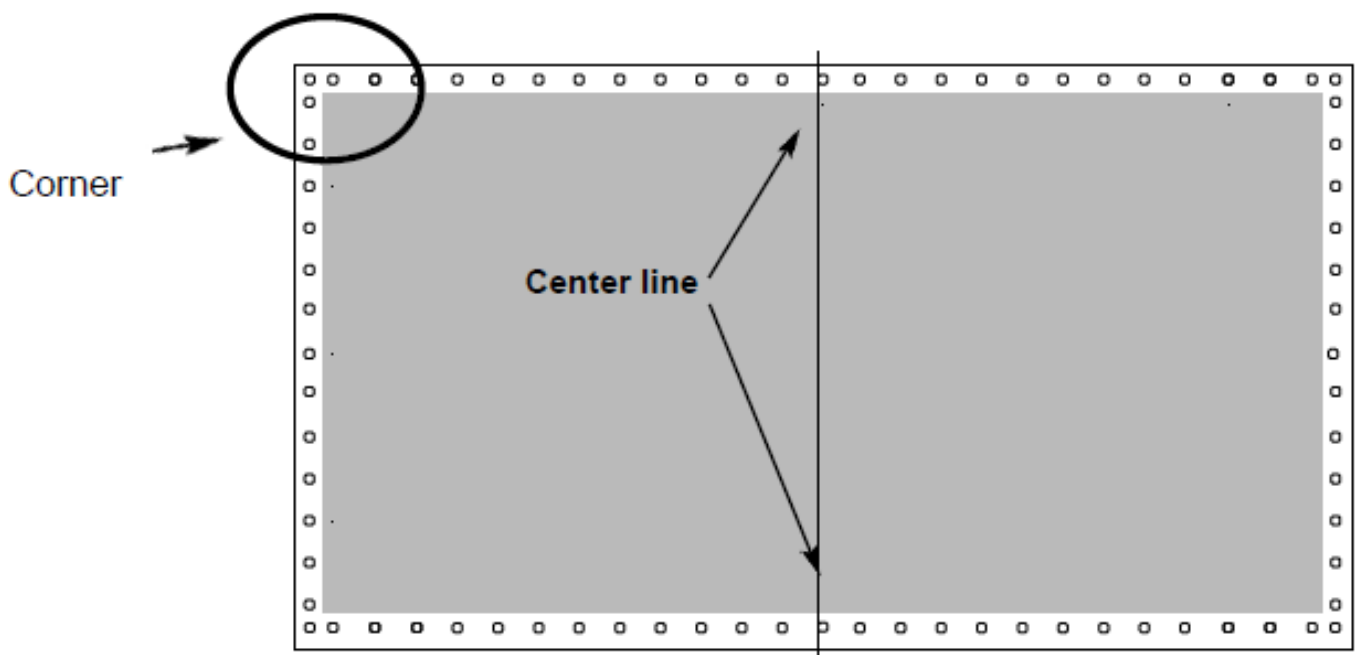


Figure 11. Screen, Audience Viewing Side

CAUTION

Do not use excessive force to stretch the screen into place as this can cause the screen to tear and become damaged.

- Continue attaching S-hooks to grommets along the top from the top left to the center top. The screen centerline is marked with a red grommet at the frame center (see Figures 11 and 12).
- As you work, continue to unroll the screen, cutting tie cords as required and attaching S-hooks to grommets along the top.
- Inspect the screen to ensure that it is properly attached and not overstretched.
- When the middle S-hook is attached to the center top grommet, the grommet should be within 3" or 7.5 cm of

the center of the screen. If the center hook is short of the center grommet, continue attaching the hooks along the top until you reach the end. You will need to adjust the screen on the frame before attaching the sides. Shift the S-hooks, one grommet at a time, to move the screen sideways on the frame. When the screen is centered on the frame, you can proceed with the sides.

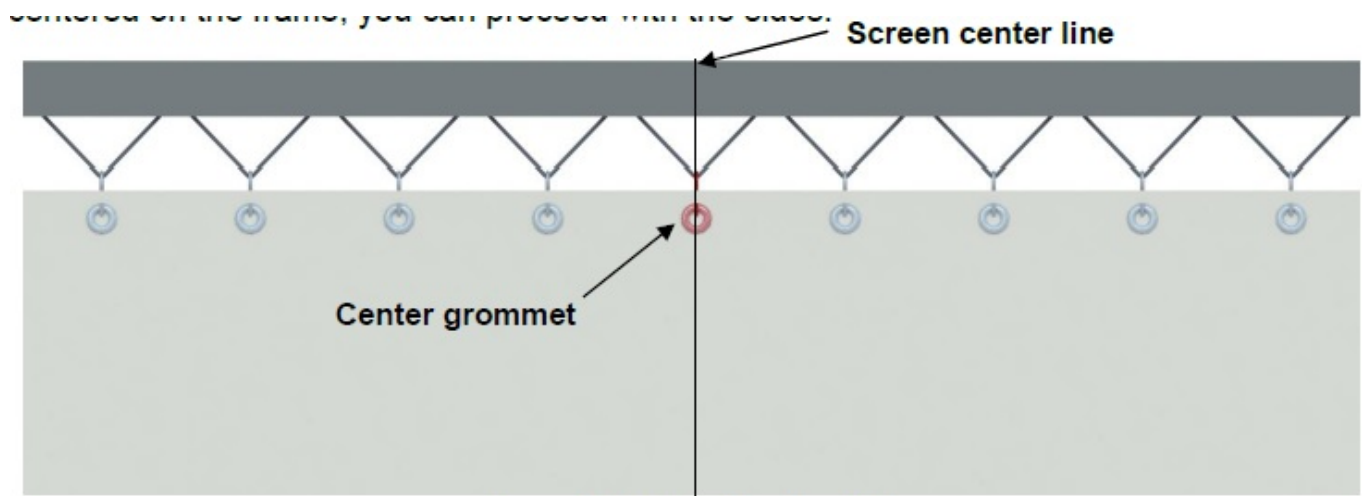


Figure 12. Top Center of Frame

- You may need to skip three or four S-hooks on the top frame member to develop enough slack in the bungee cord to hook the grommet without creating too much tension. If you feel that you are pulling on the screen or the bungee too much, attach only the hooks that allow for minimal tension to give the material enough time to stretch before attaching the skipped hooks.
- Attach the screen to the sides of the frame, using the techniques described below.
- Attach S-hooks on the right side from the top to the center. If the screen edge is more than 4" or 10 cm from the frame on the right side, allow a few minutes for the screen to stretch before continuing. Tension should be even — the top of the screen and frame should be parallel.
- Attach the S-hooks on the left side, from top to bottom. Attach the S-hooks on the right side, from the center to bottom.
- Inspect the screen to ensure that it is properly attached and not overstretched. Check for even tension.
- Attach the screen to the bottom of the frame, using the techniques described below.
Begin attaching the bottom in the corners, being careful not to put too much tension on any grommets. Work toward the center.
- You may, once again, need to skip three or four S-hooks on the bottom frame member to develop enough slack in the bungee cord to hook the grommet without creating too much tension. If you feel that you are pulling on the screen or the bungees too much, attach only the hooks that allow for minimal tension to give the material enough time to stretch before attaching the skipped hooks.
- If there is too much tension, wait to allow the screen time to stretch as needed. Continue attaching the remaining S-hooks along the bottom, working toward the center.
- Make a final inspection of the screen to verify that it is attached properly and that the corners are free from tears and stress.

THIS SCREEN SEEMS TOO SMALL

While the screen may seem too small for the frame, rest assured that it will fit. Grommited screens manufactured by Stewart are unique in several ways. Stewart uses a proprietary process that allows seamless construction of all vinyl screen materials: front and rear projection, perforated and non-perf screens. The Stewart process provides the flattest, most uniform surface possible. The final step in achieving this surface occurs during installation when the fabric is gently pulled into its final, specified dimension. This is accomplished by means of the shock cord and “S” hook framing system.

DON'T WORRY

It is normal and expected that a Stewart tension and grommet suspended screen appears to be too small for the frame as the screen is unrolled. A rule of thumb is that for every 10 feet or 3 m of vertical height, approximately 8” or 20 cm of “stretch” is engineered into the fabric. Do not worry; this is exactly as planned.

RED GROMMET AND HOOK AT EACH CENTER LINE

Stewart puts a red grommet at the centerline of each side of the fabric. The grommet spacing is 4” or 10 cm center to center. While installing the fabric, you may find that you’ve hit the red grommet exactly, or you may be off a grommet. If the layout is off a grommet, continue to hang the top, then go back and do a hook for hook exchange across the top. The remainder of the fabric will be fine “unhooked” for as long as this takes.

When the top binding of the screen is entirely suspended and centered in the frame, the fabric should be “necking” in toward the center from each edge, and significantly raised above the bottom frame member (see Figure 13). As you lace down the sides, the shock cord lacing system will easily come out and meet the screen edge and the screen fabric will quickly elongate to a perfectly planar surface.



Figure 13. Top of Screen Laced, Showing the “Necking” on the Sides of the Screen.

LACING THE BOTTOM

For large scale screens that are more than 15 feet or 4.5 m in height, it may be helpful to hook every third “S” hook across the bottom, initially, then after a few minutes, start again at the centerline, and begin hooking all the “S” hooks. This stretching process may take up to one hour, but not more. It is desirable that the installation site’s room temperature be somewhere between 60 to 78 degrees Fahrenheit, 15.5 to 25.5 degrees Celsius.

CARING FOR AND CLEANING THE SCREEN

GENERAL MAINTENANCE

With reasonable care, you may expect many years of dependable use of your Stewart projection screen.

FOR VINYL SCREEN MATERIALS ONLY

The surface of your screen is delicate, so we encourage you to keep your screen clean. Special attention to these instructions should be followed when cleaning.

- Avoid getting any foreign objects on the screen, as cleaning may prove very difficult. It may not be possible to remove scratches, paint, ink, etc.
- A draftsman-style brush may be used to lightly whisk away any loose dirt or dust particles. (This type of brush is usually available at office supply stores.)
- For tougher spots, you can make a cleaning solution using a water-based detergent and warm water. To make the solution, mix one-part Simple Green, 409, or another water-based industrial cleaner with three parts warm water. Moisten a clean cotton cloth, or cotton swab with this solution, moisten the stained area, and gently lift off the stain. Never use an aggressive scrubbing action as you could damage the screen surface by removing the optical coating. Re-moisten the area with clean water and dab dry with a clean sponge or cotton cloth. Any residual watermarks will evaporate on their own in a few minutes; do not attempt to manually dry the screen.
- Contact tech support at Stewart Filmscreen if you have questions about removing difficult spots.
- **CAUTION**
 - Do not use any other cleaning materials on the screen.
 - Do not use chemicals, solvents, or alcohol-based cleaners to clean the screen. Use only commercially available, water-based degreaser or liquid dish soap.
 - Do not use chemicals, solvents, or liquid cleaners to clean the Velux covering.
 - Do not fold or crease the screen.

VELUX™ COVERING

- Use a lint roller to remove particles from the Velux, which is the material covering the frame.
- A brush may be used to comb (lift) the nap of the Velux material to eliminate depression marks.

ONE (1) YEAR LIMITED WARRANTY

STEWART FILMSCREEN CORPORATION (Stewart) warrants all products to the original purchaser only. Stewart products are guaranteed to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase by the original purchaser or eighteen (18) months from date of manufacture, as defined in the serial number. Additionally, all products must be properly operated and maintained according to Stewart instructions and cannot be damaged due to improper handling or treatment after shipment from the factory. This warranty does not apply to equipment showing evidence of misuse, abuse, or accidental damage, including neglect caused by improper installation (i.e. proximity to hot lights, exposure to extreme heat or cold, exposure to excessive humidity, etc.). Stewart on-site warranty repair services are not available for this product. Stewart's sole obligation under this warranty shall be to repair or to replace (at Stewart's sole discretion) the defective part of the merchandise. This warranty expressly does not cover any costs of removal, installation, framing, or other costs incidental to replacing the screen or returning it to Stewart. Returns for service should be made to your Stewart dealer. If it is necessary for the dealer to return the screen or part to Stewart, transportation (freight) expenses to and from Stewart are payable by the purchaser. Stewart is not responsible for damage in shipment. To protect against damage or loss in transit, insure the product and prepay all transportation expenses. This warranty is in lieu of all other warranties, expressed or implied, including warranties as to fitness for use or merchantability. Any implied warranties of fitness for use or merchantability, which may be mandated by statute or rule of law, are limited to the one (1) year warranty period. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. In no event will Stewart be liable for sums in excess of the purchase price of the product. No liability is assumed by Stewart for expenses or damages resulting from interruption in operation of equipment, or for incidental, direct, or consequential damages of any nature. In the event that there is a defect in materials or workmanship of a Stewart Filmscreen product, you may contact our customer service department at 1161 W Sepulveda Blvd, Torrance, CA 90502- 2797, or call us at 1 (310) 784-5300, or toll free at 1 (800) 762-4999.

IMPORTANT

This warranty shall not be valid and Stewart shall not be bound by this warranty if the product is not operated and maintained in accordance with Stewart's written instructions. Stewart Filmscreen Corporation shall not be liable for any and all consequential damage(s) occasioned by the breach of any written or implied warranty pertaining to the sale of a Stewart Filmscreen product in excess of the purchase price of the product sold.


www.StewartFilmscreen.com

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Documents / Resources

	<p>Stewart AT 1.5 Fixed Frame Tensioned and Grommet Screen [pdf] Owner's Manual AT 1.5 Fixed Frame Tensioned and Grommet Screen, AT 1.5, Fixed Frame Tensioned and Grommet Screen, Frame Tensioned and Grommet Screen, Tensioned and Grommet Screen, Grommet Screen, Screen</p>
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References

- [S Home-en - Stewart](#)