

Starling Series

Section 1: Screen Design

1.1 What is it for?

The **Starling Series** is one of our most comprehensive electric projection screen lines. The motorized wall/ceiling mounted projection screen is designed for HDTV format presentations in home, office, or educational environments.

1.2 How does it work?

It's list of complimentary standard features include Infrared and Radio Frequency remote controls, wall/ceiling mount kit, and extra top black masking leader. The **Starling Series** offers various mounting options as it includes an installation kit for wall or ceiling installations.

Section 2: Product Features

2.1 Characteristics

Screen Material

- Spectra White FG (fiberglass backed) matte white surface
- 180° wide viewing angle with 1.1 Gain
- 4K Ultra HD, Active 3D, and HDR Ready
- Not compatible with Ultra/Short-throw Projectors
- Standard black masking borders and black backing
- Extra top black border for high ceiling installation
- Available in the following diagonal sizes:
 - 100", 120" and 135" in 16:9 format

Design and Installation

- Durable arcuate housing in white or black finish
- Includes pair of brackets and hardware for wall or ceiling installation
- Wall mountable remote control cradle included
- Bottom weight bar completely hides inside case
- Plug & play, hardwire installation not required

Control System

- Infrared (IR) remote control
- Radio Frequency (RF) remote control
- In-line 3-position wall switch
- Smooth, quiet up/down operation

Quality and Reliability

- Synchronous motor allows silent operation with extended operational longevity

- Low power consumption
- Flame Retardant: Complies with NFPA 701 Standards
- 2-year warranty from defects in workmanship
- 3rd year warranty offered through ENR-G program (Education, Non-Profit, Religious, and Government/Military)

2.2 Model Numbers

Model Number	Diag. Size	Aspect Ratio	Viewing Height (in)	Viewing Width (in)	Screen Material	Gain	Case Color	N.W. (lbs)	G.W. (lbs)	Packaging Dimensions (LxWxH)
ST120UWH-E14	120"	16:9	58.9	104.5	Spectra White FG	1.1	Black	32.9	48.9	126.2"x5.3"x6.9"
ST135XWH-E6	135"	16:9	66.1	117.7	Spectra White FG	1.1	White	47.4	62.0	139.0"x5.7"x7.7"

Section 3: Screen Material Specifications

3.1 Characteristics

Elite’s new **Spectra White Fiberglass** is a self-supporting matte white front projection screen surface with fiberglass backing. The fiberglass backing reduces the amount of curling on the edges that common non-tensioned materials are susceptible to. This feature helps maintain flatness throughout the entire material.



The **Spectra White Fiberglass** produces outstanding images that are rich in color and contrast in environments with controlled lighting. Offers a broad viewing angle with wide diffusion uniformity for a clear bright image from any angle. The screen surface has a black-backing to eliminate light penetration, is mildew resistant, and washable with mild soap & water.

Features & Benefits

- Gain: 1.1
- Viewing Angle: 180° (90°LR)
- Not compatible with Ultra/Short-throw Projectors
- Black-backing
- Wide diffusion uniformity – maintains luminance levels through out entire surface
- Surface can be cleaned with soap, water and a soft cloth
- Multi-Layer Weave and Textured Surface with Fiber Glass Backing
- Resists warping caused by temperature variations in multi-layered material compound
- Mildew Resistant
- Active 3D, 4K Ultra HD, and HDR ready
- Flame Retardant: Complies with NFPA 701 Standards

PRODUCT WHITE PAPER

<http://www.elitescreens.com>

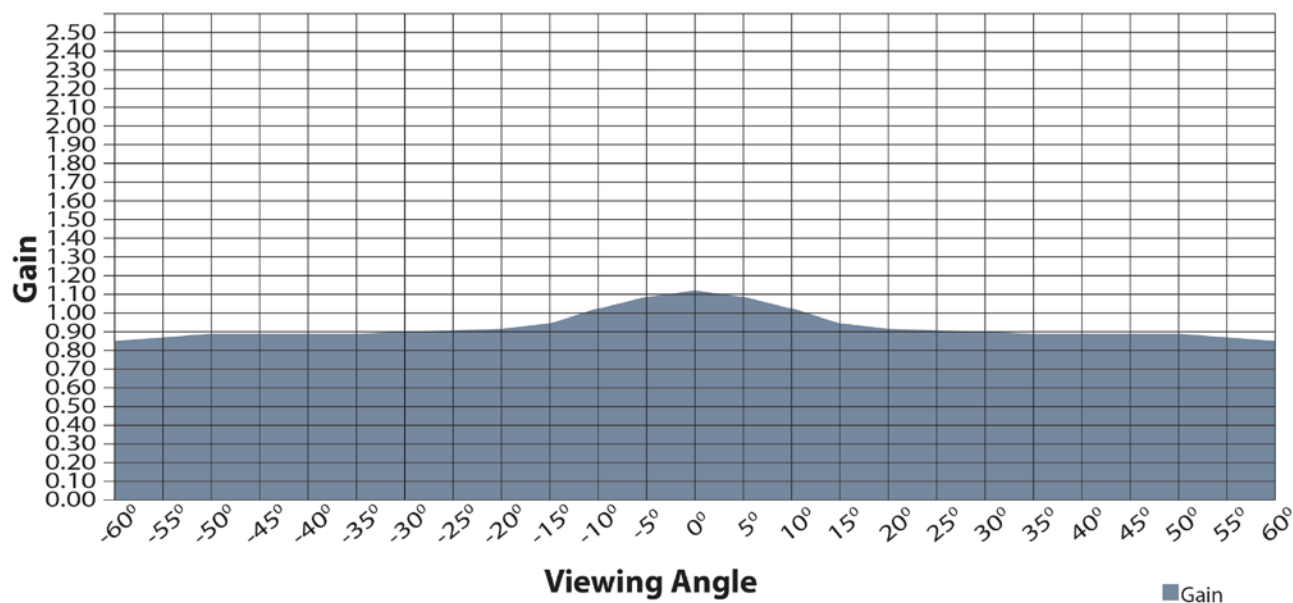


Specifications	
Thickness	0.44 mm
Weight	450 g/m ²
Roll length	3.2 M

3.2 Gain Chart



On axis 0° Gain: 1.1
Viewing Cone: 180°



Section 4: Execution

4.1 Important Safety & Warning Precautions

Caution: The screen's Black Top Drop is already set to its maximum drop distance. There is **NO** extra Black Top Drop in the roller. Please be aware of this as it will void your warranty with Elite Screens. Unapproved changes or modifications (except for cutting the power cord for hardwire installations) to this unit are prohibited and will void your warranty. For more information, please contact our Technical Support Dept. at (877) 511-1211 Ext. 604.

- Please retain this user's guide for future reference.
- To avoid damaging the unit, do not use with any unauthorized accessories not recommended by the manufacturer.
- Handle the unit carefully during transportation to avoid any damages.
- To ensure safe and reliable operation, direct connection to a properly grounded power source is advised.
- The power outlet supplying power to the unit should be close to the unit and easily accessible.
- Do not install the unit on uneven or inclined surfaces.
- Do not put heavy objects on the power cord and position it properly to avoid creating a trip obstacle.

- Never overload the power cord to prevent an electric shock or fire due to a loose contact or a short circuit.
- There are not user serviceable parts in this unit. Do not attempt to disassemble this unit by yourself. No one except authorized technicians can open and make repairs to this unit.
- Make sure the power source this unit is connected to has a continuous power flow.
- If there is need to use an extension cord, make sure the cord has an equal rating as the appliance to avoid overheating.
- Do not handle the power plug when your hands are wet or your feet are in contact with water.

Do not use this unit under the following circumstances.

- Disconnect the power cord under the conditions of heavy rain, wind, thunder or lightning.
- Avoid direct Sunshine, rain shower and moisture.
- Keep away from fire sources and high temperature to prevent this device from overheating.
- Cut off the power supply first before transportation or maintenance.
- Fully disconnect from the power supply when the unit is not in use for a long period of time, as should be done with any other electric household appliance.
- To avoid possible injury and/or an electric shock, do not attempt to use the screen if there is obvious damage or if there are any evident broken parts.

4.2 Pre-Installation

1. Carefully unpack the screen.
2. Always handle the screen in a leveled position on a clean surface.
3. In order to protect the screen from exposure to stains, keep the screen out of contact with foreign particles such as dust, sawdust, and/or liquids.

4.3 Installation Warning

Due to various installation environments, the instructions provided in this user's guide are for reference only. Please consult a professional installation company for further installation and safety advice. The installer must insure that proper mounting hardware is used to provide adequate strength suitable for the installation. Elite Screens is not liable for any faulty installations.

Individual modifications to this product are prohibited and will void the warranty with the manufacturer. Please contact Elite Screens Customer Service for any questions.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that the interference will not occur on a particular installation. If this equipment causes harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

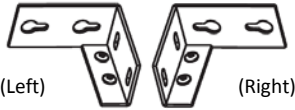


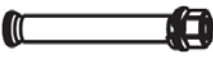




- ✓ Reorient or relocate the receiving antenna of the device which may be causing the interference.
- ✓ Increase the separation between the screen and the device's receiver.
- ✓ Connect the equipment into a different power outlet other than the device.

Note

Regardless of the mounting method, the screen should be securely supported so that the vibration or pulling on the viewing surface will not cause the casing to become loose or fall. The installer must insure that the fasteners used are of adequate strength and suitable for the installation location.

4.4 Hardware Parts List

Please make sure all parts listed below are included before proceeding with the installation.

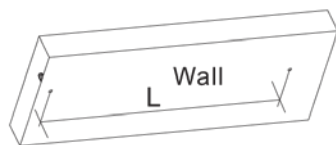
<p>A. Pair of BracketS x1</p> 	<p>B. Steel Expansion Concrete Anchor Hook x 2</p> 	<p>C. Spring Snap Link x 2</p> 	<p>D. Steel Expansion Concrete Anchor x 4</p> 
<p>E. ST5x40 Self-drilling screws x 4</p> 	<p>F. Plastic expansion dry-wall anchor x 4</p> 	<p>G. M6x16 screw x 4</p> 	<p>H. M6 nut x 4</p> 

4.5 Installation Instructions

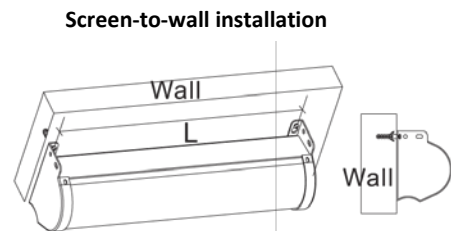
A. Wall Mount

I. Flush mount using end caps

1. Measure and mark the distance between the keyholes on each side's end cap.
2. Drill a hole on each side and insert screws into wall
3. Hang the screen



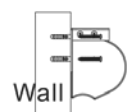
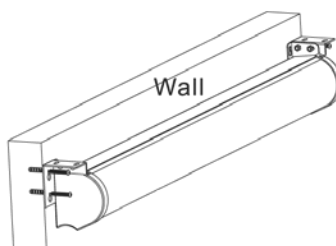
Side view



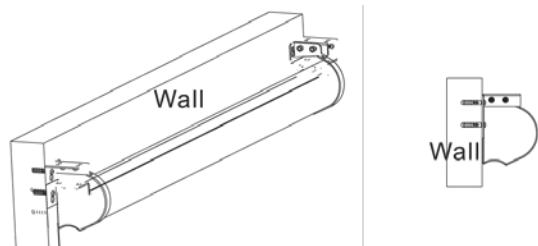
Screen-to-wall installation

II. Flush mount using brackets

1. Attach the **brackets** to the end caps with the **M6x16 screws** and **M6 nuts**
2. Measure and mark the distance between each bracket's top screw hole
3. Drill a hole for each top and bottom screw hole and insert screws into wall.
4. Hang the screen.



Side view



Screen-to-wall installation with brackets

B. Ceiling Mount

I. Flush ceiling mount using brackets

1. Attach the **brackets** to the end caps with the **M6x16 screws** and **M6 nuts**
2. Measure and mark the distance between each bracket's screw hole
3. Drill a hole for each screw hole
4. Secure the screen by inserting the screw into each bracket hole to complete your installation.

Screen-to-ceiling installation with brackets

II. Suspended

Low ceilings	High Ceilings
<ol style="list-style-type: none"> 1. Measure and mark the distance between each screw hole on end cap ear 2. Drill a hole and install the expansion anchor hook 3. Attach the snap link to the end cap ear 4. Hang the screen from the anchor hook 	<ol style="list-style-type: none"> 1. Measure and mark the distance between each screw hole on end cap ear 2. Drill a hole and install the expansion anchor hook 3. Attach the snap link to the end cap ear 4. Connect a chain or steel wire to the anchor hook and snap link to hang your screen

C. Hidden Mount

A. Wall Mount, I

A. Wall Mount, II

B. Ceiling Mount, I

B. Ceiling Mount, II

4.6 Standard Accessories

A. RF remote	B. IR remote

4.7 Operation

Electric current: The screen operates on AC110V at 60hz

1. Plug the screen's power cord to a power outlet.
2. Once the screen has power you'll be able to control it with the Infrared or Radio Frequency remote and the Wall switch box.

4.8 Control System

The *Starling Series* has **Infrared** and **Radio Frequency** receivers. You can control the screen's **UP/STOP/DOWN** positions utilizing either the IR (Infrared) or RF (Radio Frequency) remotes.

1. IR remote control

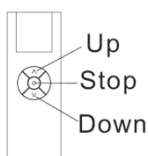
The IR remote control requires line-of-sight to the IR sensor. Make sure to point the IR remote directly to the IR sensor located on the wall switch box.

Note: a. The IR remote has a range of 15 feet.

b. The IR sensor must not be covered or blocked.

2. RF remote control

The RF remote does not require line-of-sight and can be used up to 50ft.



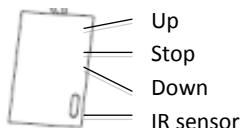
Press the **Down** button to Drop the screen

Press the **Stop** button to Stop the screen

Press the **UP** button to Retract the screen

3. Wall switch box

The UP/STOP/DOWN control buttons are located on the side of the box.

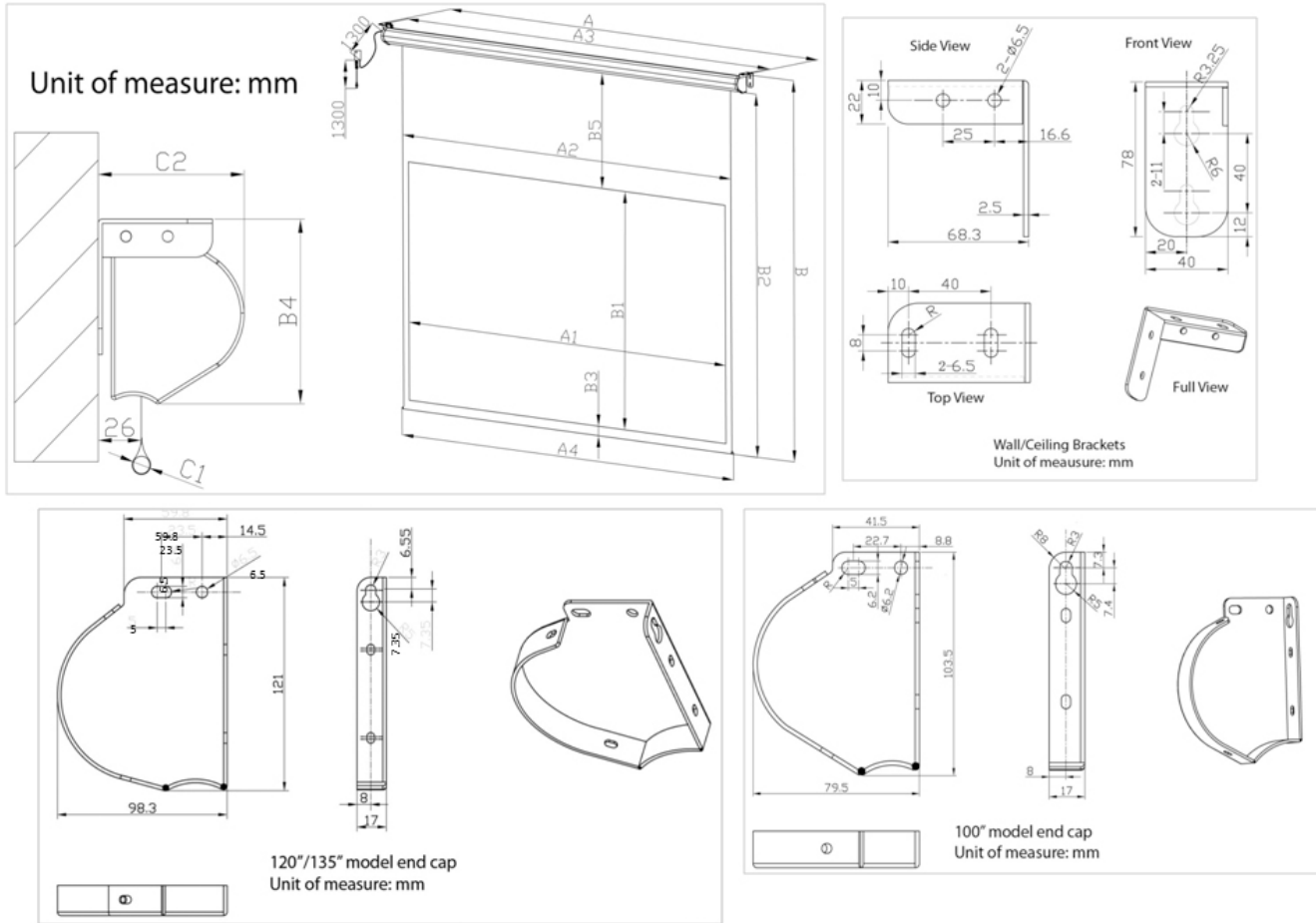


Section 5: Product Specifications

5.1 Dimensions

Model Number	Nominal Diagonal	Case Length (A)	View Width (A1)	Screen Width (A2)	A3	Weight Bar (A4)	Overall Height (B)	View Height (B1)	Screen Height (B2)	Bottom Border (B3)	B4	Top Black Border (B5)	C1	C2
<i>Unit: mm</i>														
ST120UWH-E14	3048	3045	2655	2735	2975	2745	2002	1495	1895	50	107	350	8	88
ST135XWH-E6	3429	3380	2990	3090	3300	3100	2011	1680	1880	50	131	150	10	101
<i>Unit: inches</i>														
ST120UWH-E14	120	119.9	104.5	107.7	117.1	108.1	78.8	58.9	74.6	2.0	4.2	13.8	0.3	3.5
ST135XWH-E6	135	133.1	117.7	121.7	129.9	122.0	79.2	66.1	74.0	2.0	5.2	5.9	0.4	4.0

5.2 Drawings



5.3 Pictures

Starling Series Front View and Remote Kit



Starling Series Black and White Casing



Section 6: About Elite Screens

6.1 Company Description

Elite Screens Inc. is a California based company that specializes in making quality commercial and home-theater projection screens for the retail and custom install sales channels. Our company began as an innovative venture into the projection market by manufacturing veterans from the AV/IT industry. Elite Screens quickly established itself as an entry level commercial and home theater screen manufacturer. This was accomplished by making a quality product cost effective with a focus on mass-producing screen material, sizes and aspect ratios that were most commonly preferred by AV customers in general. We focused on uniformity with what would match the mainstream demographic while including extra features that are not usually included by other manufacturers. In time, we progressed from just retail sales into the realm of custom installer/integrator manufacture as our numerous reviews and awards will attest. We stand behind our product and are so certain of customer satisfaction with the quality of our product that we offer a 2-year manufacturer's warranty which is twice the industry standard.

In our continued devotion to excellence in products and service, we are committed to implementing green practices with our production. We have adopted manufacturing methods that promote conservative regulation of our energy needs. Our simple product designs combined with the expertise of our permanent staff ensures that our entire line of products are made by experienced hands devoted to the high standards of today's audio-video consumer.

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