VMAX Dual® Series

Section 1: Screen Design

1.1 What is it?
The VMAX Dual® Series is an electric projection screen with alternating 16:9/2.35:1 aspect ratio options. The product comes fully equipped with mounting brackets in addition to an RF and 12V trigger control kit.

1.2 How does it work?
The VMAX Dual® offers a professional grade surface to match the abilities of anamorphic projectors. Anamorphic is the ability for a projector to switch from one aspect ratio (screen shape) to another in accordance with the type of presentation being shown. The VMAX Dual® utilizes two independently front projection materials and is compatible with all standard throw Home Cinema projectors. Available with MaxWhite® (matte white) and AcousticPro UHD (sound transparent) front projection surfaces.

Section 2: Product Features

2.1 Characteristics

Screen Material
- MaxWhite® 1.1 Gain or AcousticPro UHD 1.0 Gain front projection surface
- Standard black backing eliminates light penetration (MaxWhite® only)
- Wide viewing angle with excellent diffusion uniformity
- Not compatible with Ultra/Short-throw Projectors
- 4-sided black masking borders
- Active 3D, 4K Ultra HD, and HDR Ready
- Available in the following diagonal sizes:
  - 100" and 120" in 16:9 format
  - 95" and 114" in 2.35:1 format

Design and Installation
- Rectangular housing is durable and moisture resistant
- Wall or Ceiling installation options
- 12mm distance between screen materials negates depth of focus distortion
- Dual motors for each screen panel
- Constant Image Width

Control System
- Radio Frequency (RF) wireless remote control operation with separate 16:9 and 2.35:1 buttons
- Wireless 5-12v trigger enables (16:9 default) drop/rise operation to synchronize with the projector’s power cycle
- Alternating 16:9 (HDTV) and 2.35:1 (Cinemascope) projection materials
Quality and Reliability

- Synchronous motors allow a silent operation with extended operational longevity
- Low power consumption
- GREENGUARD® and GREENGUARD® Gold Certified | UL2818
- 2-year standard warranty
- 3-year warranty offered through our ENR-G program (Education, Non-Profit, Religious, and Government organizations)

2.2 Certifications

![Certification Logos]

2.3 Model Numbers

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Diag. Size</th>
<th>Aspect Ratio</th>
<th>Viewing Height (in)</th>
<th>Viewing Width (in)</th>
<th>Screen Material</th>
<th>Gain</th>
<th>Case Color</th>
<th>N.W. (lbs)</th>
<th>G.W. (lbs)</th>
<th>Packing Dims. (LxWxH)</th>
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<tbody>
<tr>
<td>VMAX100H95C</td>
<td>100“</td>
<td>16:9</td>
<td>49.0</td>
<td>87.1</td>
<td>MaxWhite®</td>
<td>1.1</td>
<td>Black</td>
<td>47.0</td>
<td>63.0</td>
<td>107.9&quot;x11.0&quot;x8.7&quot;</td>
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<td></td>
<td>95“</td>
<td>2.35:1</td>
<td>37.1</td>
<td>87.1</td>
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<tr>
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<td>58.8</td>
<td>104.6</td>
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<td>Black</td>
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<td>76.1</td>
<td>124.4&quot;x10.8&quot;x8.3&quot;</td>
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<td>2.35:1</td>
<td>44.0</td>
<td>104.6</td>
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<td></td>
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<tr>
<td>VMAX100H95C-AUHD</td>
<td>100“</td>
<td>16:9</td>
<td>49.0</td>
<td>87.1</td>
<td>AcousticPro UHD</td>
<td>1.0</td>
<td>Black</td>
<td>45.7</td>
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<td>107.9&quot;x11.0&quot;x8.7&quot;</td>
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<td>VMAX120H114C-AUHD</td>
<td>120“</td>
<td>16:9</td>
<td>58.8</td>
<td>104.6</td>
<td>AcousticPro UHD</td>
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<td>Black</td>
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Section 3: Screen Material Specifications

3.1 Characteristics

3.1.1 MaxWhite®

MaxWhite® screen material is the most versatile screen surface for front projection presentations. This material provides the widest possible viewer angles with perfect diffusion uniformity while giving precise definition, image color reproduction and black & white contrast. Screen surface has black-backing to avoid light penetration and can be cleaned safely with mild soap and water. Woven screen material is a multi-layer, cross-array coated with a matte white reflective compound.
Features & Benefits

- Multi-layer weave and textured surface coating
- Gain: 1.1
- View Angle: 180° (90° ± LR)
- Not compatible with Ultra/Short-throw Projectors
- Mildew Resistant
- Black backing
- Active 3D, 4K Ultra HD, and HDR ready
- Surface can be easily cleaned with mild soap and water
- GREENGUARD® and GREENGUARD® Gold Certified | UL 2818

<table>
<thead>
<tr>
<th>Specifications</th>
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<tbody>
<tr>
<td>Thickness</td>
<td>0.41 mm (0.016”)</td>
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<tr>
<td>Weight</td>
<td>530 g/m²</td>
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<tr>
<td>Maximum Height</td>
<td>3.2 M (10 ft)</td>
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<td>On-axis gain</td>
<td>1.1</td>
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<tr>
<td>Half-Gain Angle</td>
<td>Does not reach half gain</td>
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3.1.2 AcousticPro UHD

The AcousticPro UHD (ultra-high definition) is a moiré-free self-supported acoustically transparent front projection screen material. The dense synthetic weave is compatible with Ultra-High Definition/4K resolutions while mitigating light penetration for a brighter picture. The AcousticPro UHD design maximizes sound penetration with minimal attenuation without compromising picture quality. The AcousticPro UHD material’s wide diffusion uniformity offers a broad viewing angle with superb picture quality across the entire surface. This provides equal brightness levels on or off axis.

"Speaking of "observing", the Electric125H-AUHD performed admirably across a diversity of content and at all hours of day and night; its ambient light suppression was top-notch." – Brian Dipert, EDN Network

Features & Benefits

- Gain: 1.0
- Viewing Angle: 180° (90°L/R)
- Moiré-free
- Wide diffusion uniformity – maintains luminance levels throughout entire surface
- Mildew Resistant
- 4K UHD, Active 3D, and HDR ready
- Mean Attenuation: -2.36dB
- Flame Retardant: Complies with NFPA 701 Standards
### Specifications

<table>
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<th>Specification</th>
<th>Value</th>
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<td>Thickness</td>
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<tr>
<td>Weight</td>
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<tr>
<td>Maximum Height</td>
<td>2.5 M (8.2 ft)</td>
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<tr>
<td>On-axis gain</td>
<td>1.0</td>
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<tr>
<td>Half-Gain Angle</td>
<td>Does not reach half gain</td>
</tr>
</tbody>
</table>

### 3.2 Gain and Viewing Angle Chart

#### 3.2.1 MaxWhite®

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

#### 3.2.2 AcousticPro UHD

- **On axis 0° Gain:** 0.80
- **Viewing Cone:** 180°
Section 4: Execution

4.1 Important Safety and 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 overheat.
- 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 casing 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

<table>
<thead>
<tr>
<th>A. Hollow Wall Anchor x 6 pcs</th>
<th>B. Screw x 6 pcs</th>
<th>C. R18mmx6mm Washer x 6 pcs</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Hollow Wall Anchor" /></td>
<td><img src="image" alt="Screw" /></td>
<td><img src="image" alt="Washer" /></td>
</tr>
<tr>
<td>D. M6x12mmx1.5mm washer, M6x24mm screw, M6 nut x 4 pcs</td>
<td>E. 6 inch Wall Brackets x 2 pcs</td>
<td>F. Black Tape x 2 pcs</td>
</tr>
</tbody>
</table>

### 4.5 Installation

The **VMAX Dual Series** screen is designed for installation on a wall or ceiling. All hardware is included to allow a wall installation. A professional installer is strongly recommended for safety purposes.

**Wall Installation**

1. Measure the length distance (L) between each hole on the screen’s end flange as shown in the image below.
2. Measure and mark the required height for your installation. Next, drill three holes vertically 37mm apart for the **6 inch wall brackets** (E). Then, drill another hole according to the measurement distance obtained from Step 1. Finally, drill the remaining two holes for the wall bracket.

3. Insert the **hollow wall anchors** (A) into the drilled holes. Align the **6 inch wall brackets** (E) to the drilled holes and secure with the **screws** (B).

4. After securing the **6 inch wall brackets** (E) to the wall, bring the screen over the top of the brackets. 

5. Align the screw holes from the screen’s end flanges to the wall brackets top opening.

6. Insert the **M6x24mm screw & washer** and secure with the **M6 nut** (D).

**Note:** Two or more people are required to lift screen up.
Ceiling Installation

1. Measure the (L) and (W) distance and mark the area on your ceiling. Those measurements are the holes located at the end flanges of the *VMAX Dual* screen as shown in the drawing.

2. Drill four holes in the ceiling and insert the *hollow wall anchors* (A) in each of the drilled holes.

Two or more people are required for the next steps

3. Carefully bring up the screen and align the end flange holes of the screen with the two drilled holes in the ceiling.

4. Insert the *screw* (B) in the *hollow wall anchor* (A) and fasten with a *screw* (B) to secure the screen in place. Repeat procedure until screen is safely installed.
4.6 Accessories

| RF remote x 1 | 5-12V trigger cable x 1 | Bubble leveler | AAA batteries x 2 |

4.7 Control System and Operation

The *VMAX Dual* series screen’s main unique feature is the ability of changing the screen’s ratio to 2.35:1 and 16:9 with the push of a button with the RF remote (Radio Frequency). This is accomplished by the screen’s dual screen materials and motors.

1. Radio Frequency Remote Operation

Press the 2.35:1 button on the RF remote so the screen can lower and display a 2.35:1 format.

Press the 16:9 button on the RF remote, this will retract the 2.35:1 screen into the housing. When the 2.35:1 screen has stopped, the 16:9 screen commences its deployment.
Press “UP” button on the RF remote to retract the screen into the housing.

2. Wireless 5-12 volt trigger operation

The *VMAX Dual* may be controlled through a projector’s 5-12 volt trigger through the Radio Frequency remote control. It will synchronize with the projector’s power cycle and deploy the *16:9 screen* when the projector is turned on and retract it when the projector is powered off.

Plug the 5-12 volt trigger cable as shown below and turn on your projector.

If the *16:9 screen* does not deploy, try the following steps to reprogram the RF remote to your VMAX Dual.

**Step 1:** Make sure to unplug your screen from the power outlet

**Step 2:** Hold the *UP* button on your RF remote

**Step 3:** While holding the *UP* button, plug the screen back to the power outlet

**Step 4:** Wait 5 seconds and then release the *UP* button

**Step 5:** The RF remote should now be programmed with your screen and ready to synchronize with your projector’s power cycle

Repeat the steps again if unsuccessful.

*Note: The projector’s on/off cycle may take longer to fully activate. It typically takes anywhere from 20-30 seconds for full off/on cycle to function each time.*
### Section 5: Product Specifications

#### 5.1 Dimensions

| Model Number | A  | A1 | A2 | A3 | A4 | A5 | A6 | B  | B1 | B2 | B3 | B4 | B5 | C  | C1 | C2 | C3 | C4 | C5 | C6 |
|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| VMAX100H 95C | 101.3 | 99.7 | 87.2 | 91.1 | 94.3 | 2.0 | 102.6 | 102.1 | 61.6 | 57.4 | 49.0 | 6.0 | 3.5 | 2.4 | 6.0 | 7.1-7.7 | 6.0 | 4.3 | 0.9 | 3.7-4.3 | 3.0-3.5 |
| VMAX100H 95C | 101.3 | 99.7 | 87.2 | 91.1 | 94.3 | 2.0 | 102.6 | 102.1 | 61.6 | 57.4 | 37.2 | 11.9 | 3.5 | 8.3 | 6.0 | 7.1-7.7 | 6.0 | 4.3 | 0.9 | 3.7-4.3 | 3.0-3.5 |
| VMAX120H 114C | 119.0 | 117.4 | 104.6 | 108.5 | 111.7 | 2.0 | 120.4 | 119.8 | 71.4 | 67.2 | 58.8 | 6.0 | 3.5 | 2.4 | 6.0 | 7.1-7.7 | 6.0 | 4.3 | 0.9 | 3.7-4.3 | 3.0-3.5 |
| VMAX120H 114C | 119.0 | 117.4 | 104.6 | 108.5 | 111.7 | 2.0 | 120.4 | 119.8 | 71.4 | 67.2 | 44.6 | 13.1 | 3.5 | 9.4 | 6.0 | 7.1-7.7 | 6.0 | 4.3 | 0.9 | 3.7-4.3 | 3.0-3.5 |
| VMAX100H 95C-AUHD | 101.3 | 99.7 | 87.2 | 91.1 | 94.3 | 2.0 | 102.6 | 102.1 | 61.6 | 57.4 | 152 | 90 | 60 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX100H 95C-AUHD | 101.3 | 99.7 | 87.2 | 91.1 | 94.3 | 2.0 | 102.6 | 102.1 | 61.6 | 57.4 | 302 | 90 | 240 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX120H 114C-AUHD | 119.0 | 117.4 | 104.6 | 108.5 | 111.7 | 2.0 | 120.4 | 119.8 | 71.4 | 67.2 | 44.6 | 13.1 | 3.5 | 9.4 | 6.0 | 7.1-7.7 | 6.0 | 4.3 | 0.9 | 3.7-4.3 | 3.0-3.5 |
| VMAX120H 114C-AUHD | 119.0 | 117.4 | 104.6 | 108.5 | 111.7 | 2.0 | 120.4 | 119.8 | 71.4 | 67.2 | 332 | 90 | 240 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |

**Unit: Inches**

| Model Number | A  | A1 | A2 | A3 | A4 | A5 | A6 | B  | B1 | B2 | B3 | B4 | B5 | C  | C1 | C2 | C3 | C4 | C5 | C6 |
|--------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| VMAX100H 95C | 2573 | 2533 | 2214 | 2314 | 2394 | 50 | 2607 | 2593 | 1565 | 1457 | 1245 | 152 | 90 | 60 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX100H 95C | 2573 | 2533 | 2214 | 2314 | 2394 | 50 | 2607 | 2593 | 1565 | 1457 | 945 | 302 | 90 | 210 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX120H 114C | 3023 | 2983 | 2657 | 2757 | 2837 | 50 | 3057 | 3043 | 1814 | 1706 | 1494 | 152 | 90 | 60 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX120H 114C | 3023 | 2983 | 2657 | 2757 | 2837 | 50 | 3057 | 3043 | 1814 | 1706 | 1134 | 332 | 90 | 240 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX100H 95C-AUHD | 2573 | 2533 | 2214 | 2314 | 2394 | 50 | 2607 | 2593 | 1565 | 1457 | 1245 | 152 | 90 | 60 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX100H 95C-AUHD | 2573 | 2533 | 2214 | 2314 | 2394 | 50 | 2607 | 2593 | 1565 | 1457 | 945 | 302 | 90 | 210 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX120H 114C-AUHD | 3023 | 2983 | 2657 | 2757 | 2837 | 50 | 3057 | 3043 | 1814 | 1706 | 1494 | 152 | 90 | 60 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |
| VMAX120H 114C-AUHD | 3023 | 2983 | 2657 | 2757 | 2837 | 50 | 3057 | 3043 | 1814 | 1706 | 1134 | 332 | 90 | 240 | 153 | 180-196 | 153 | 108 | 23 | 94-109 | 76-89 |

**Unit: mm**

**Example of the back of the projector**

- DC 5-12V OUT
- 5-12 v input port
- 12V wireless trigger
5.2 Drawings

5.3 Pictures

VMAX Dual® Full View (2.35:1 and 16:9 Ratios)
Housing Detail

Weight Bar Detail
Installation Hardware Kit

Life Style
(2.35:1 Ratio)
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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