# Cascade G2

Retractable, Above Ceiling Screen System





# **Contents**

| Major Components                                    |    |
|---|----|
| Installing Dust Cover and End Flanges               | 4  |
| Ceiling Mount                                       | 5  |
| Ceiling Mount Configuration Details                 | 6  |
| Threaded Rod Mount                                  | 7  |
| Threaded Rod Mount Configuration Details            | 8  |
| Power & Control Ports                               | 9  |
| Wiring for Internal Intelligent Motor Control (IMC) | 10 |
| External IMC Control                                | 11 |
| MC RJ45 Pinouts                                     | 12 |
| Typical Screen Sizes and Dimensions                 | 13 |
| Typical Shipping Dimensions                         | 15 |

# **Major Components**

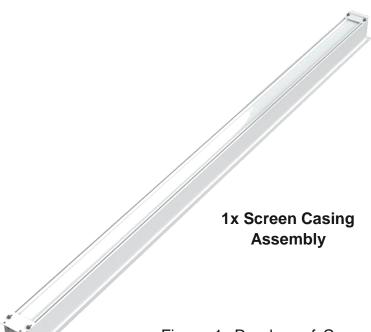


Figure 1: Renders of Cascade G2 unit and mount\*. Standard Ceiling mount shown. If ordered, ceiling mount comes preinstalled.

### Installing Fascia End Pieces and Dust Cover

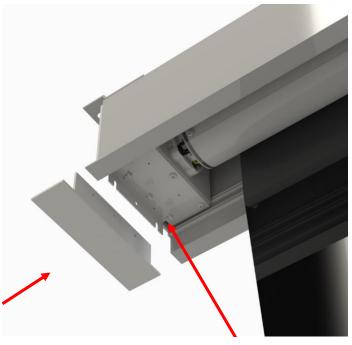


Figure 2: Render of Cascade G2 with end flange being installed.

#### **Fascia End Pieces**

The end flanges on cascade G2 are to be installed after the unit has been mounted, to hide access to the mounting holes in the situation that you are mounting with ceiling mounts. Three simple Phillips screws are screwed in, from the inside before you install the dust cover.

#### **Dust Cover**

Cascade G2 has a modular design in that it allows you to build out the casing with minimum amount of fasteners. In the case for the dustcover, it requires no fasteners and can be easily installed by lifting and hooking the metal extrusion onto the main body. This allows for an ease of serviceability with an unobstructed view of the internal workings from below.



Figure 3: Render of Cascade G2 with end flange installed and dust cover being installed.

### **Ceiling Mount**

Cascade G2 comes with two ceiling mount brackets preinstalled. This mounting option is suitable for the vast majority of Cascade G2 applications as this model is specifically designed to be mounted onto the ceiling within a pre-determined cavity. The unit itself is designed around your ceiling needs and this mounting allows for an easy, two bolt per side, installation.

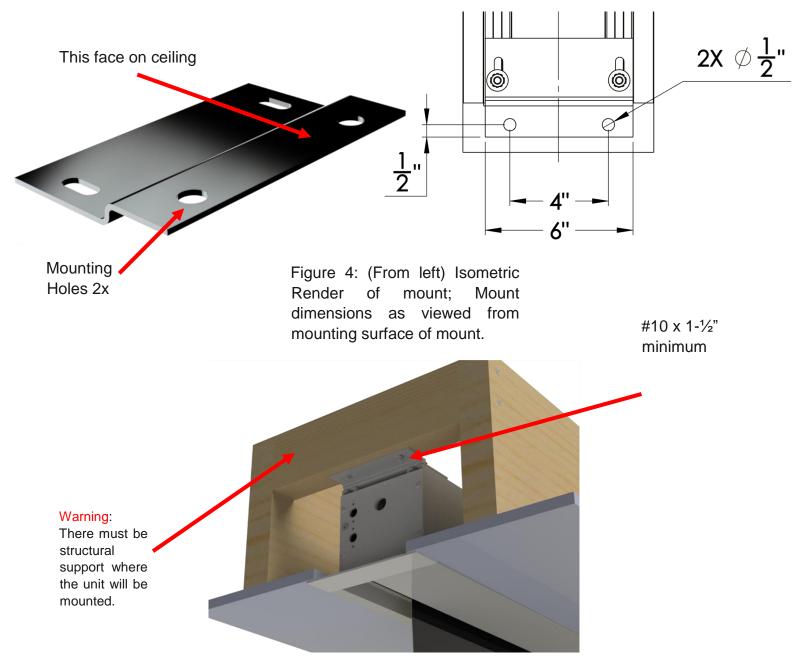


Figure 5: Cascade G2 rendering shown mounted on ceiling joist.

# **Ceiling Mount Configuration Details**

#### **Ceiling Mount Minimum Spacing Dimensions**

#### Warning:

This dimension is critical for user to clear housing within opening.

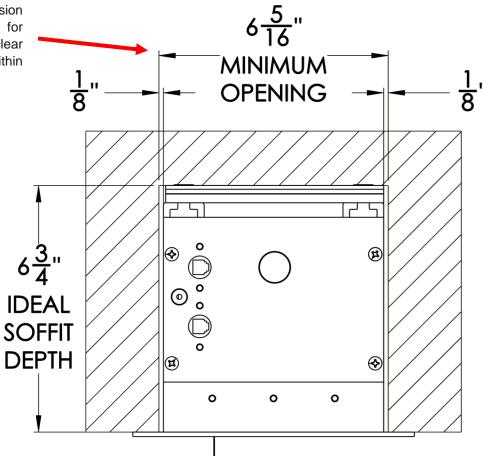


Figure 6: Drawing above shows the absolute minimum dimensions that must be respected when installing Cascade G2 to the ceiling.

# **Threaded Rod Mount**

Cascade G2 can come optioned with two threaded rod mount brackets preinstalled. This mounting option is suitable for the customer that needs to suspend their case lower into the ceiling from a higher mounting point.

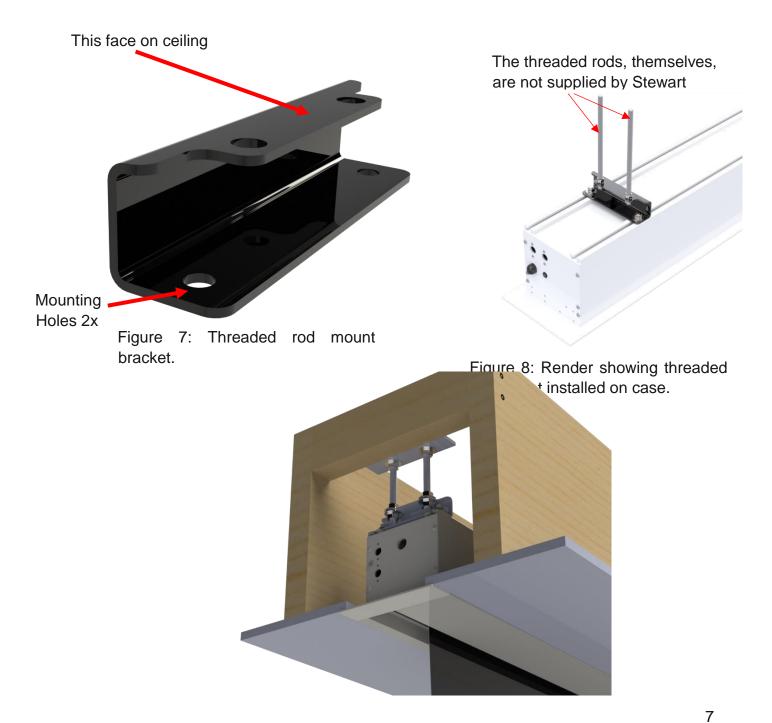


Figure 9: Cascade G2 rendering shown mounted on ceiling joist.

# **Threaded Rod Mount Configuration Details**

### **Threaded Rod Mount Minimum Spacing Dimensions**

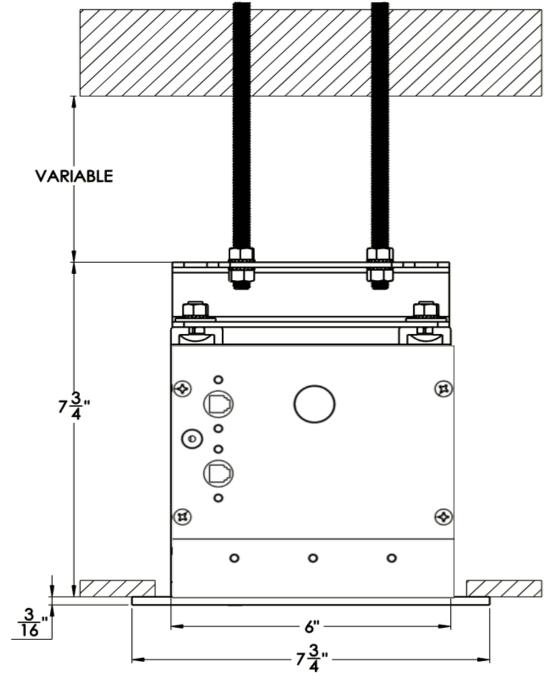


Figure 10: Drawing above shows the absolute minimum dimensions that must be respected when installing Cascade G2 to the ceiling via threaded rods.

# Power & Control Ports

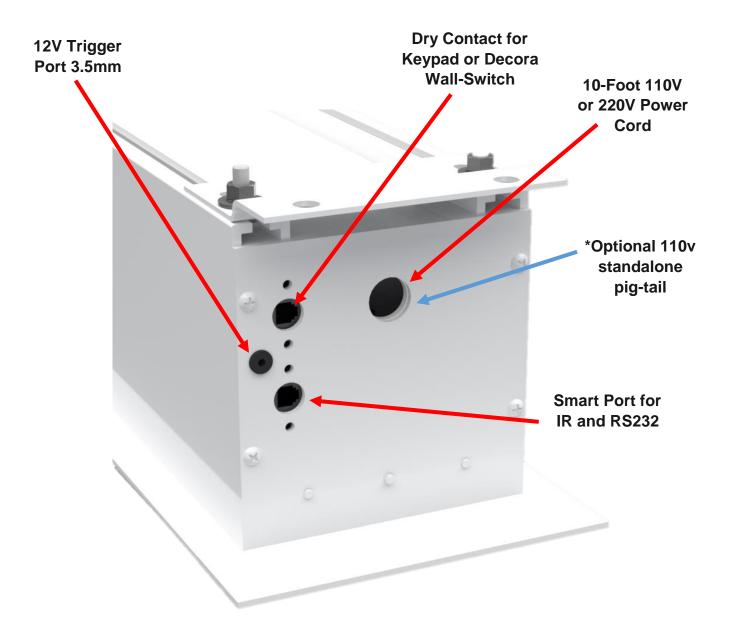


Figure 11: Side view, audience left hand side of Cascade G2 power control ports.

# Wiring for Internal Intelligent Motor Control (IMC)

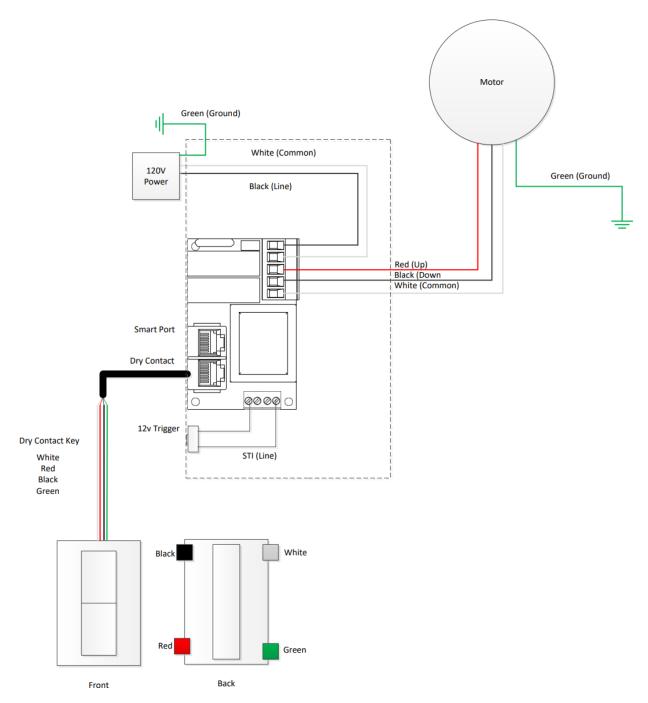


Figure 12: Cascade G2 internal wiring to IMC with standard color coded connections shown.

# **External IMC Control**

In the scenario that an external box is needed for your interfacing needs, a single wire harness will exit the screen casing and a waterproof box will contain an IMC board within for ease of wiring from outside the case.

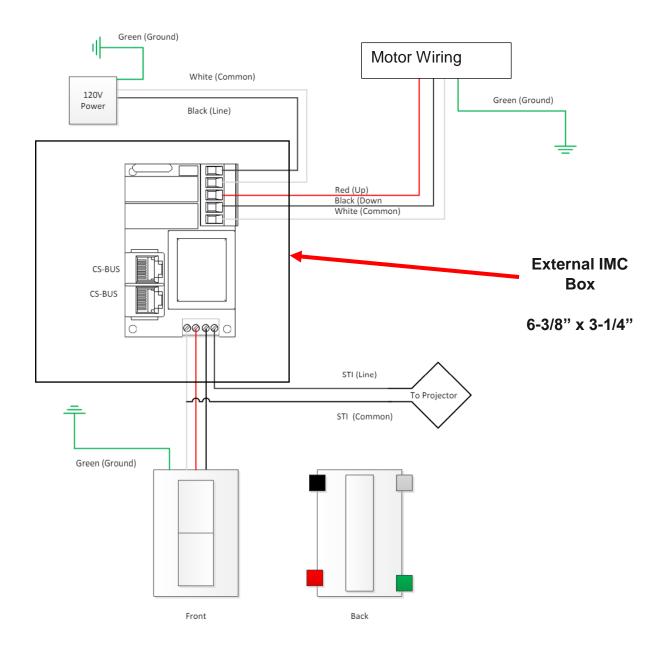


Figure 13: Cascade G2 external IMC box

#### **IMC RJ45 Pinouts**

All Stewart Filmscreen "smart port accessories" that are RJ25 will plug into the RJ45 smart port on the side of the Cascade G2 case. In the box you will find two spare RJ45 connectors. These are provided for the ease of making or extending wires for use with dry contact port. If you need to create a connection using the included RJ45 plugs, you must connect to the dry contact port. Any dry contact connections must match the RJ45 pinout diagram (see Figure 14).

#### 8 Pin RJ45 for Low Voltage Dry Contact Connector

| Pin | Signal   |
|-----|----------|
| 1   | Not used |
| 2   | Not used |
| 3   | DOWN     |
| 4   | UP       |
| 5   | COMMON   |
| 6   | TRIGGER  |
| 7   | Not used |
| 8   | Not used |

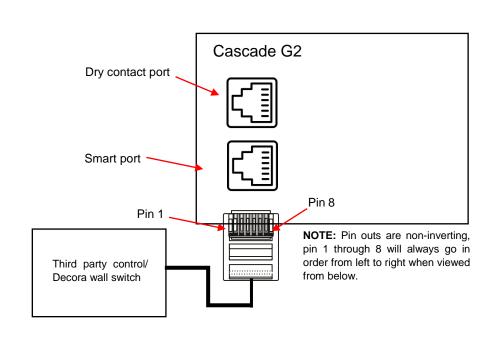


Figure 14: Cascade G2 RJ45 Pinouts

# **Typical Screen Sizes and Dimensions**

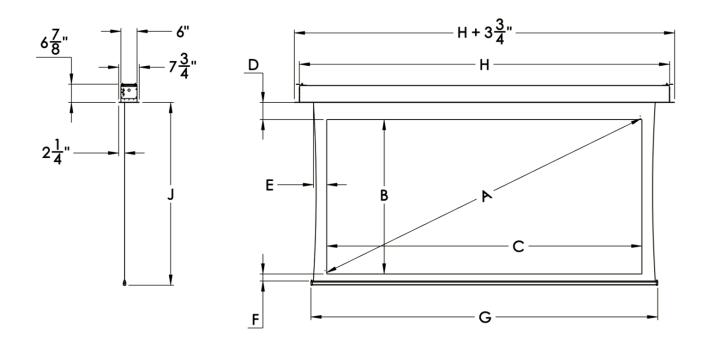


Figure 15: Basic front and side view drawing with letters for dimensions. See tables below for appropriate aspect ratio and dimensions.

### 16:9 Aspect Ratio

| Diagonal (A) | Image<br>Height (B) | Image<br>Width (C) | Top<br>Masking (D) | Side<br>Masking (E) | Bottom<br>Masking (F) | Batten<br>Length (G) | Overall<br>Length (H) | Screen<br>Deploy (J) | Screen<br>Weight |
|--------------|---------------------|--------------------|--------------------|---------------------|-----------------------|----------------------|-----------------------|----------------------|------------------|
| 100"         | 49"                 | 87"                | 12"                | 5"                  | 2"                    | 98.4"                | 107.75"               | 64.625"              | 85lbs            |
| 110"         | 54"                 | 96"                | 12"                | 5"                  | 2"                    | 107.4"               | 116.75"               | 69.625"              | 90lbs            |
| 120"         | 58.75"              | 104.5"             | 12"                | 5"                  | 2"                    | 115.9"               | 125.25"               | 74.375"              | 95lbs            |
| 123"         | 60"                 | 107"               | 12"                | 5"                  | 2"                    | 118.9"               | 127.75"               | 75.7"                | 96lbs            |
| 133"         | 65.25"              | 116"               | 12"                | 6"                  | 2"                    | 129.9"               | 138.75"               | 78"                  | 102lbs           |
| 135"         | 66"                 | 118"               | 12"                | 6"                  | 2"                    | 131.9"               | 140.75"               | 81.7"                | 103lbs           |
| 150"         | 73.5"               | 130.75"            | 12"                | 6"                  | 2"                    | 144.65"              | 153.5"                | 89.125"              | 115lbs           |
| 160"         | 78.25"              | 139.5"             | 12"                | 7"                  | 2"                    | 155.4"               | 164.25"               | 93.875"              | 120lbs           |
| 165"         | 81"                 | 144"               | 12"                | 7"                  | 2"                    | 159.9"               | 168.75"               | 96.7"                | 125lbs           |
| 180"         | 88.25"              | 157"               | 12"                | 8"                  | 2"                    | 174.9"               | 183.75"               | 104"                 | 134lbs           |
| 200"         | 98"                 | 174.25"            | 12"                | 8"                  | 2"                    | 192.15"              | 201"                  | 113.7"               | 148lbs           |
| 208"         | 102.375"            | 182"               | 12"                | 9"                  | 2"                    | 201.9"               | 210.75"               | 118"                 | 155lbs           |

16:10 Aspect Ratio

| Diagonal | Image      | Image     | Top Masking | Side       | Bottom      | Batten     | Overall    | Screen     | Screen |
|----------|------------|-----------|-------------|------------|-------------|------------|------------|------------|--------|
| (A)      | Height (B) | Width (C) | (D)         | Masking(E) | Masking (F) | Length (G) | Length (H) | Deploy (J) | Weight |
| 94"      | 50"        | 80"       | 12"         | 5"         | 2"          | 91.9"      | 100.75"    | 65.7"      | 77lbs  |
| 109"     | 57.5"      | 92.5"     | 12"         | 5"         | 2"          | 104.4"     | 113.3"     | 73.45"     | 85lbs  |
| 113"     | 60"        | 96"       | 12"         | 5"         | 2"          | 107.9"     | 116.75"    | 75.7"      | 90lbs  |
| 123"     | 65"        | 104"      | 12"         | 6"         | 2"          | 117.9"     | 126.75"    | 80.7"      | 95lbs  |
| 130"     | 69"        | 110"      | 12"         | 6"         | 2"          | 123.9"     | 132.75"    | 84.625"    | 100lbs |
| 137"     | 72.5"      | 116"      | 12"         | 6"         | 2"          | 129.9"     | 138.75"    | 88.125"    | 103lbs |
| 164"     | 87"        | 139"      | 12"         | 7"         | 2"          | 154.39"    | 163.75"    | 102.625"   | 125lbs |
| 198"     | 105"       | 168"      | 12"         | 9"         | 2"          | 187.9"     | 196.75"    | 120.7"     | 145lbs |
| 210"     | 111.25"    | 178"      | 12"         | 9"         | 2"          | 197.9"     | 206.75"    | 126.95"    | 153lbs |

# 2.4:1 Aspect Ratio

| Diagonal<br>(A) | Image<br>Height (B) | Image<br>Width (C) | Top<br>Masking(D) | Side<br>Masking (E) | Bottom<br>Masking (F) | Batten<br>Length(G) | Overall Length<br>(H) | Screen Deploy<br>(J) | Screen<br>Weight |
|-----------------|---------------------|--------------------|-------------------|---------------------|-----------------------|---------------------|-----------------------|----------------------|------------------|
| 120"            | 46.25"              | 111"               | 12"               | 5"                  | 2"                    | 122.9"              | 131.75"               | 61.875"              | 96lbs            |
| 125"            | 48.375"             | 116"               | 12"               | 5"                  | 2"                    | 127.9"              | 136.75"               | 64"                  | 99lbs            |
| 133"            | 51.25"              | 123"               | 12"               | 5"                  | 2"                    | 134.9"              | 143.75"               | 66.875"              | 104lbs           |
| 138"            | 53.375"             | 128"               | 12"               | 5"                  | 2"                    | 139.9"              | 148.75"               | 69"                  | 108lbs           |
| 140"            | 54.125"             | 130"               | 12"               | 5"                  | 2"                    | 141.9"              | 150.75"               | 69.9"                | 110lbs           |
| 144"            | 55.375"             | 133"               | 12"               | 5"                  | 2"                    | 144.9"              | 153.75"               | 71"                  | 111lbs           |
| 150"            | 57.875"             | 139"               | 12"               | 5"                  | 2"                    | 150.9"              | 159.75"               | 73.6"                | 115lbs           |
| 153"            | 59.125"             | 142"               | 12"               | 5"                  | 2"                    | 153.9"              | 162.75"               | 74.9"                | 117lbs           |
| 158"            | 60.875"             | 146"               | 12"               | 5"                  | 2"                    | 157.9"              | 166.75"               | 76.6"                | 120lbs           |
| 168"            | 64.625"             | 155"               | 12"               | 6"                  | 2"                    | 168.9"              | 177.75"               | 80.4"                | 128lbs           |
| 176"            | 67.875"             | 163"               | 12"               | 6"                  | 2"                    | 176.9"              | 185.75"               | 83.6"                | 134lbs           |

# 2.35:1 Aspect Ratio

| Diagonal<br>(A) | Image<br>Height (B) | Image<br>Width (C) | Top Masking<br>(D) | Side Masking<br>(E) | Bottom<br>Masking (F) | Batten<br>Length (G) | Overall<br>Length (H) | Screen<br>Deploy (J) | Screen<br>Weight |
|-----------------|---------------------|--------------------|--------------------|---------------------|-----------------------|----------------------|-----------------------|----------------------|------------------|
| 115"            | 45"                 | 105.75"            | 12"                | 5"                  | 2"                    | 117.7                | 126.5"                | 60.7"                | 92lbs            |
| 120"            | 47.25"              | 111"               | 12"                | 5"                  | 2"                    | 122.9"               | 131.75"               | 63"                  | 96lbs            |
| 125"            | 49"                 | 115"               | 12"                | 5"                  | 2"                    | 126.4"               | 135.8"                | 64.625"              | 99lbs            |
| 130"            | 51.125"             | 120"               | 12"                | 5"                  | 2"                    | 131.9"               | 140.75"               | 66.9"                | 102lbs           |
| 133"            | 52"                 | 122.5"             | 12"                | 5"                  | 2"                    | 133.9"               | 143.3"                | 67.625"              | 104lbs           |
| 138"            | 54"                 | 127"               | 12"                | 5"                  | 2"                    | 138.4"               | 147.8"                | 69.625"              | 106lbs           |
| 140"            | 54.875"             | 129"               | 12"                | 5"                  | 2"                    | 140.9"               | 149.75"               | 70.6"                | 108lbs           |
| 144"            | 56.625"             | 133"               | 12"                | 5"                  | 2"                    | 144.9"               | 153.75"               | 72.375"              | 111lbs           |
| 150"            | 58.75"              | 138"               | 12"                | 5"                  | 2"                    | 149.4"               | 158.8"                | 74.375"              | 114lbs           |
| 153"            | 60"                 | 141"               | 12"                | 5"                  | 2"                    | 152.9"               | 161.75                | 75.625"              | 117lbs           |
| 158"            | 62.125"             | 146"               | 12"                | 5"                  | 2"                    | 157.9"               | 166.75"               | 77.8"                | 120lbs           |
| 168"            | 66"                 | 155"               | 12"                | 6"                  | 2"                    | 168.9"               | 177.75"               | 82"                  | 128lbs           |
| 176"            | 68.875"             | 162"               | 184.8"             | 12"                 | 6"                    | 2"                   | 175.4"                | 84.6"                | 133lbs           |

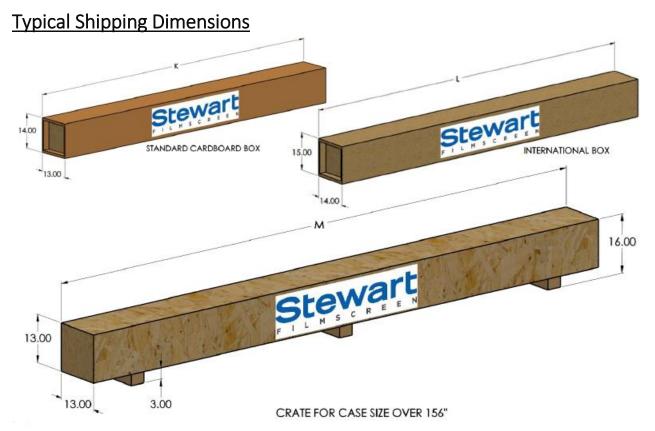


Figure 16: Isometric renders of shipping boxes and crate with letters for dimensions. See tables below for appropriate aspect ratio and dimensions.

#### 16:9 Aspect Ratio

| Diagonal | Overall Case<br>Length | Screen<br>Weight | Shipping<br>Length (K) | Shipping<br>Weight | International Shipping Length (L) | International<br>Weight | Oversized Crate<br>Length (M) | Oversized<br>Crate Weight |
|----------|------------------------|------------------|------------------------|--------------------|-----------------------------------|-------------------------|-------------------------------|---------------------------|
| 100"     | 107.8"                 | 85lbs            | 123.5"                 | 110lbs             | 123.5"                            | 198lbs                  |                               |                           |
| 110"     | 116.8"                 | 90lbs            | 132.5"                 | 117lbs             | 132.5"                            | 213lbs                  |                               |                           |
| 120"     | 125.3"                 | 95lbs            | 140.8"                 | 124lbs             | 140.8"                            | 224lbs                  |                               |                           |
| 123"     | 127.8"                 | 96lbs            | 143.3"                 | 126lbs             | 143.3"                            | 230lbs                  |                               |                           |
| 133"     | 138.8"                 | 102lbs           | 154.3"                 | 134lbs             | 154.3"                            | 246lbs                  |                               |                           |
| 135"     | 140.8"                 | 103lbs           | 156.3"                 | 135lbs             | 156.3"                            | 247lbs                  |                               |                           |
| 150"     | 153.5"                 | 115lbs           | 167"                   | 150lbs             | 167"                              | 270lbs                  |                               |                           |
| 160"     | 164.3"                 | 120lbs           |                        |                    |                                   |                         | 177.3"                        | 245lbs                    |
| 165"     | 168.5"                 | 125lbs           |                        |                    |                                   |                         | 181.5"                        | 255lbs                    |
| 180"     | 183.8"                 | 134lbs           |                        |                    |                                   |                         | 196.8"                        | 270lbs                    |
| 200"     | 201"                   | 148lbs           |                        |                    |                                   |                         | 214"                          | 295lbs                    |
| 208"     | 210"                   | 155lbs           |                        |                    |                                   |                         | 223"                          | 330lbs                    |

# 16:10 Aspect Ratio

| Diagonal | Overall<br>Case | Screen<br>Weight | Shipping<br>Length (K) | Shipping<br>Weight | International<br>Shipping Length (L) | International<br>Weight | Oversized Crate<br>Length (M) | Oversized<br>Crate |
|----------|-----------------|------------------|------------------------|--------------------|--------------------------------------|-------------------------|-------------------------------|--------------------|
| 94"      | 100.5"          | 76lbs            | 116"                   | 100lbs             | 116"                                 | 184lbs                  |                               |                    |
| 109"     | 113.3"          | 85lbs            | 129"                   | 111lbs             | 129"                                 | 203lbs                  |                               |                    |
| 113"     | 116.5"          | 87lbs            | 132"                   | 114lbs             | 132"                                 | 210lbs                  |                               |                    |
| 123"     | 127"            | 95lbs            | 142.5"                 | 124lbs             | 142.5"                               | 224lbs                  |                               |                    |
| 130"     | 133"            | 99lbs            | 148.5"                 | 130lbs             | 148.5"                               | 238lbs                  |                               |                    |
| 137"     | 139"            | 103lbs           | 154.5"                 | 135lbs             | 154.5"                               | 247lbs                  |                               |                    |
| 164"     | 163.78"         | 125lbs           |                        |                    |                                      |                         | 176.8"                        | 253lbs             |
| 198"     | 196.75"         | 145lbs           |                        |                    |                                      |                         | 210"                          | 310lbs             |
| 210"     | 206.75"         | 153lbs           |                        |                    |                                      |                         | 220"                          | 320lbs             |

# 2.4:1 Aspect Ratio

| Diagonal | Overall<br>Case | Screen<br>Weight | Shipping<br>Length (K) | Shipping<br>Weight | International Shipping Length (L) | International<br>Weight | Oversized Crate<br>Length (M) | Oversized<br>Crate |
|----------|-----------------|------------------|------------------------|--------------------|-----------------------------------|-------------------------|-------------------------------|--------------------|
| 120"     | 131.5"          | 96lbs            | 147"                   | 126lbs             | 147"                              | 226lbs                  |                               |                    |
| 125"     | 136.3"          | 99lbs            | 152"                   | 130lbs             | 152"                              | 230lbs                  |                               |                    |
| 133"     | 143.6"          | 104lbs           | 159"                   | 136.5lbs           | 159"                              | 245lbs                  |                               |                    |
| 138"     | 148.3"          | 108lbs           | 164"                   | 141.5lbs           | 164"                              | 250lbs                  |                               |                    |
| 140"     | 150"            | 110lbs           | 165.5"                 | 145lbs             | 165.5"                            | 257lbs                  |                               |                    |
| 144"     | 153.8"          | 111lbs           | 169.5"                 | 146lbs             | 169.5"                            | 260lbs                  |                               |                    |
| 150"     | 159.3"          | 115lbs           |                        |                    |                                   |                         | 172.5"                        | 235lbs             |
| 153"     | 162"            | 117lbs           |                        |                    |                                   |                         | 175"                          | 240lbs             |
| 158"     | 166.6"          | 120lbs           |                        |                    |                                   |                         | 179.5"                        | 245lbs             |
| 168"     | 177.8"          | 128lbs           |                        |                    |                                   |                         | 193.5"                        | 260lbs             |
| 176'     | 185.3"          | 134lbs           |                        |                    |                                   |                         | 198.3"                        | 275lbs             |

2.35:1 Aspect Ratio

| Diagonal | Overall<br>Case | Screen<br>Weight | Shipping<br>Length (K) | Shipping<br>Weight | International<br>Shipping Length (L) | International<br>Weight | Oversized Crate<br>Length (M) | Oversized<br>Crate |
|----------|-----------------|------------------|------------------------|--------------------|--------------------------------------|-------------------------|-------------------------------|--------------------|
| 115"     | 126.5"          | 92lbs            | 142"                   | 121lbs             | 142"                                 | 221lbs                  |                               |                    |
| 120"     | 131.3"          | 96lbs            | 147"                   | 126lbs             | 147"                                 | 226lbs                  |                               |                    |
| 125"     | 135.8"          | 99lbs            | 151.5"                 | 130lbs             | 151.5"                               | 230lbs                  |                               |                    |
| 130"     | 140.3"          | 102lbs           | 156"                   | 134lbs             | 156"                                 | 244lbs                  |                               |                    |
| 133"     | 143.3"          | 104lbs           | 159"                   | 136.5lbs           | 159"                                 | 245lbs                  |                               |                    |
| 138"     | 147.8"          | 106lbs           | 163.5"                 | 139.5lbs           | 163.5"                               | 245lbs                  |                               |                    |
| 140"     | 149.5"          | 108lbs           | 165"                   | 140lbs             | 165"                                 | 255lbs                  |                               |                    |
| 144"     | 153.3"          | 111lbs           | 169"                   | 146lbs             | 169"                                 | 259lbs                  |                               |                    |
| 150"     | 158.8"          | 114lbs           |                        |                    |                                      |                         | 172"                          | 235lbs             |
| 153"     | 161.8"          | 117lbs           |                        |                    |                                      |                         | 175"                          | 238lbs             |
| 158"     | 166.3"          | 120lbs           |                        |                    |                                      |                         | 182"                          | 245lbs             |
| 168"     | 177.3"          | 128lbs           |                        |                    |                                      |                         | 193"                          | 260lbs             |
| 176"     | 184.8"          | 133lbs           |                        |                    |                                      |                         | 198"                          | 270lbs             |