STRONG
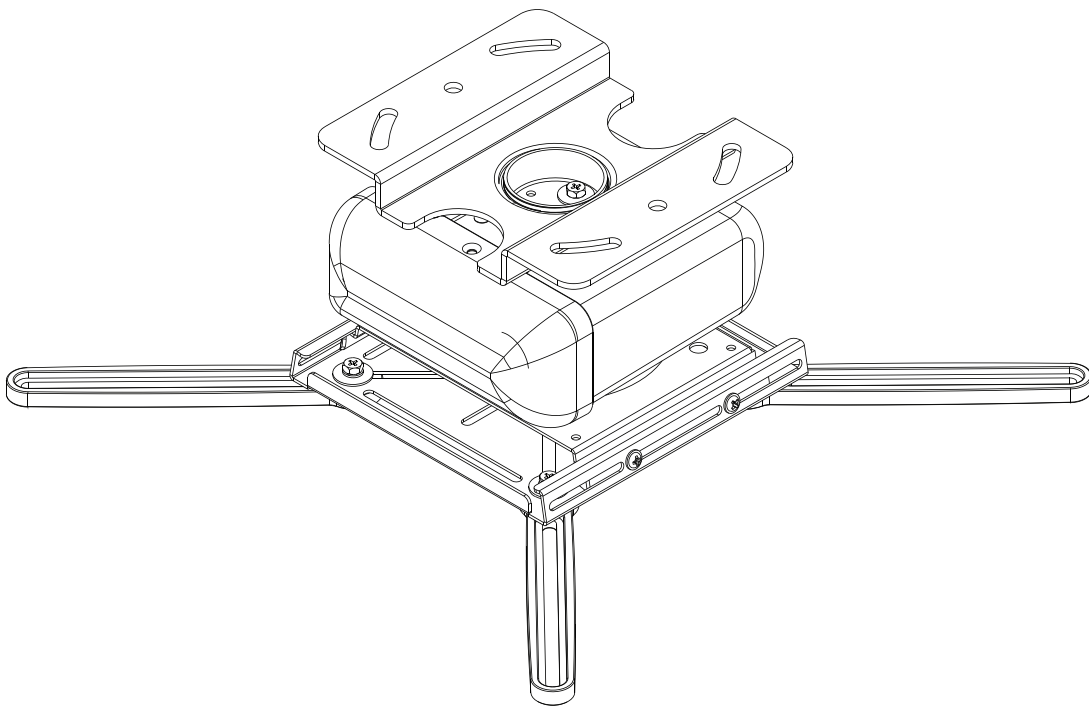
engineered by
Snap
av

SM-PROJ-XL-WH / SM-PROJ-XL-BLK

Strong™ Fine Adjust Projector Mount

INSTRUCTION MANUAL

1.   Warnings and Important Safety Instructions

⚠

CAUTION:
This ceiling mount is intended for use only with the maximum weight of 50 lbs (22.67 kg). Use with heavier than the maximum weight indicated may result in instability causing possible injury.

⚠

- •   We highly recommend this product be installed by a qualified professional.
- •   Do not begin installation until you thoroughly read and understand these instructions.
- •   Ensure the ceiling will safely support four times the combined weight of the mount and projector.
- •   Under no circumstances should this product be mounted to metal studs.
- •   The manufacturer does not accept responsibility for incorrect installation.

2.   Table of Contents

3. Introduction

Thank you for purchasing a Strong® projector mount. We appreciate your purchase and are committed to providing the highest quality products possible.

This Strong SM-PROJ-XL Projector Mount was designed to provide the most installer-friendly experience possible. It uses a hanging mount design that allows for easy height adjustment using standard 1.5" NPT threaded hanging rods, and supports a variety of Strong accessories to allow mounting to almost any ceiling and provide wiring concealment. A 3-axis fine adjustment system has been incorporated into the mounting plate to allow for +/-5 degrees of vertical, horizontal, and rotational adjustment, and a weight balancing adjustment is also built in for extra projector stability.
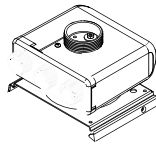
4. Package Contents

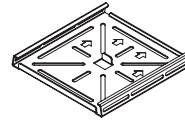• Installation Manual   • SM-PROJ-XL Mounting Accessory Guide

Assembled Parts
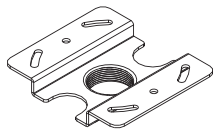
(A) Ceiling Plate (1)   (B) Projector Mount (1)   (C) Mounting Base (1)   (D) Mounting Arms (4)
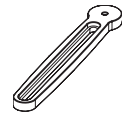
(E) M4x10 Security Screw (4)   (F) M5x12 Screw (4)

Pkg A
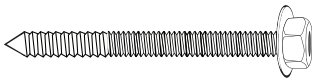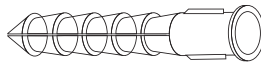
(G) M6x55 Lag Screw (4)   (H) 10x50 Concrete Anchor (4)   (I) 8mm (ID) Washer (8)   (T4) 5mm Allen Wrench (1)

Pkg B

(J) M5x5 Set Screw (1)   (T1) 2.5mm Security Allen Wrench (1)

Pkg C

(K) 4mm (ID) Washer (4)   (L) M3x10 Security Screw (4)   (M) M3x18 Security Screw (4)   (N) M3x26 Security Screw (4)

(O) M4x12 Security Screw (4)   (P) M4x20 Security Screw (4)   (Q) M4x28 Security Screw (4)   (T2) 3mm Security Allen Wrench (1)

Pkg D

(R) M5x12 Security Screw (4)   (S) M5x20 Security Screw (4)   (U) M5x28 Security Screw (4)   (V) M6x12 Security Screw (4)

(W) M6x20 Security Screw (4)   (X) M6x28 Security Screw (4)   (T3) 4mm Security Allen Wrench (1)

5.   Tools Required

- •   Ladder or scaffolding to allow access to the mounting area
- •   Pencil (for making temporary alignment marks)
- •   #2 Philips Screwdriver
- •   Drill
- •   3/16" Drill (if mounting in wood joist ceiling)
- •   3/8" Masonry Bit (if mounting in concrete ceiling)
- •   Hammer (if mounting in concrete ceiling)
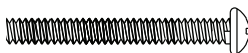- •   Stud Finder (optional, suggested for use with wood joist ceilings)

6.   Installation Considerations

Review this section before beginning to ensure the best possible experience during and after installation of the SM-PROJ-XL projector mount.

6.1.   Mounting Height and Location

- • The ideal parameters for projector height and distance from the screen vary depending on the equipment in use and the operating environment. Plan the location that is best for performance according to the screen and projector specifications.
- • Make sure that nothing will obstruct installation of the projector mount fasteners and wiring in the building structure, such as concealed plumbing, ductwork, electrical wiring or conduit. Ensure that no exposed items on the ceiling or walls will obstruct the line of sight or prevent any part of the system from being mounted correctly.
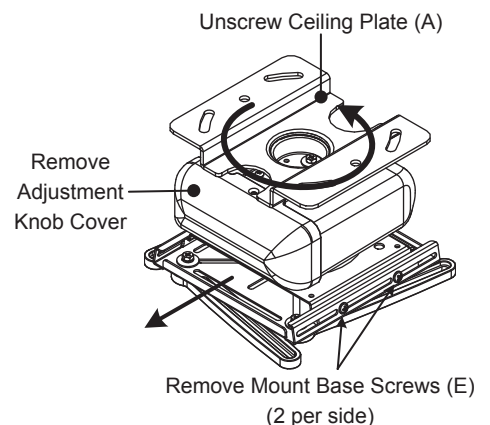
6.2.   Ceiling Mounting Options

- • The SM-PROJ-XL projector mount and all Strong mounting accessories utilize 1.5" NPT threads for attachment of mount parts, accessories, and extensions. These optional parts allow for mounting to a variety of ceiling types and heights. See the SM-PROJ-XL Mounting Accessory Guide (included in the box) for more information.

7.   Installation

Step 1. Unpack the Projector Mount

A.   The SM-PROJ-XL is packaged with most of the mount pre-assembled. While unpacking the mount, refer to the Package Contents section (Pg. 3) and inventory the parts in the box. The pre-assembled pieces are listed together for easy reference.

B.   Unscrew the ceiling plate (A) from the projector mount body (B) and remove the adjustment knob cover (Figure 1).

C.   Remove the four screws (E) using the 3mm Security Allen wrench (T2), and slide the mounting base (C) from the mount body (B).

D.   Open and organize the hardware packages A and B, which contain parts and tools required for installation of the mount. Packages C and D contain parts and tools for attaching the mount to the projector. Set these aside for use in Step 5 of Installation.

Figure 1

Unscrew Ceiling Plate (A)

Remove Adjustment Knob Cover

Remove Mount Base Screws (E)
(2 per side)

Step 2. Install the Mounting Plate or Accessory on the Ceiling

If an alternative ceiling mounting accessory is being used to hang the mount from the ceiling, refer to the installation manual included with it to complete step 2 of SM-PROJ-XL installation. If the included ceiling plate is being used, continue with the directions below for either wood or masonry ceiling material mounting.

⚠️ ***Warning! When installing the ceiling plate:***

Do not over-tighten any fasteners used to mount to the ceiling plate. Over-tightening could cause damage to the fasteners, reducing their rated holding strength and increasing the possibility of failure.

Damage to the mount or projector due to improper installation of fasteners is not covered under warranty.

A. Wood Joist Ceiling Instructions

1. Locate the included ceiling plate (A) and (2) M6x55mm lag screws (G).

2. Place the ceiling plate (A) in the desired location, and then mark the two mounting holes and the location of the plate. The use of a stud finder is highly recommended to ensure that screws are threaded into the center of the joist above the ceiling surface.

3. Pre-drill each hole using a drill and 3/16" drill bit to a depth of at least 2 1/4".

4. Hold the plate tightly in place over the alignment marks. Insert the screws (G) through the plate mounting slots, into the drilled holes, and tighten them using the 5mm Allen wrench (T4) until the plate is securely attached and will not move freely.

Figure 2
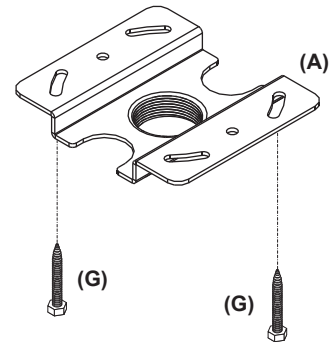
B. Concrete Ceiling Instructions

⚠️ ***Warning! For Concrete or Cinder Block Mounting:***
*Cinder block must meet ASTM C-90 specifications.*

Concrete must be 2000 psi density minimum. Lighter density concrete may not hold concrete anchor. Verify that there is a minimum of 1-3/8" of concrete thickness to be used for the included concrete wall anchors.

Do not drill into mortar joints! Be sure to mount in a solid part of the block, generally 1" minimum from the side of the block.

It is suggested that a standard electric drill on slow setting is used to drill the hole instead of a hammer drill to avoid breaking out the back of the hole when entering a void or cavity.

Make sure that the supporting surface will safely support the combined load of the equipment and all attached hardware and components.

Figure 3

Cutaway View
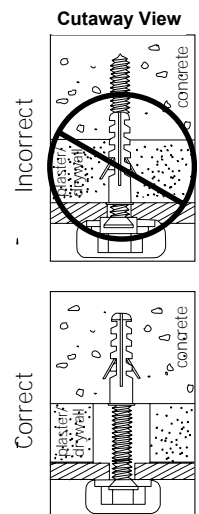
1. Locate the ceiling plate (A), (4) 10mmx50mm masonry anchors (H) and (4) M6x55mm lag screws (G).

2. Place the ceiling plate (A) in the desired location, and then mark the four mounting hole locations and the location of the plate.

3. Using a drill and a 3/8" masonry bit, drill one hole to a depth of at least 2" (51mm) in each of the four marked locations.

4. Install the concrete anchors into the holes, tapping them in lightly with a hammer as needed.

5. Hold the plate tightly in place over the alignment marks. Insert the screws (G) through the plate mounting slots, into the drilled holes, and tighten them using the 5mm Allen wrench (T4) until the plate is securely attached and will not move freely.
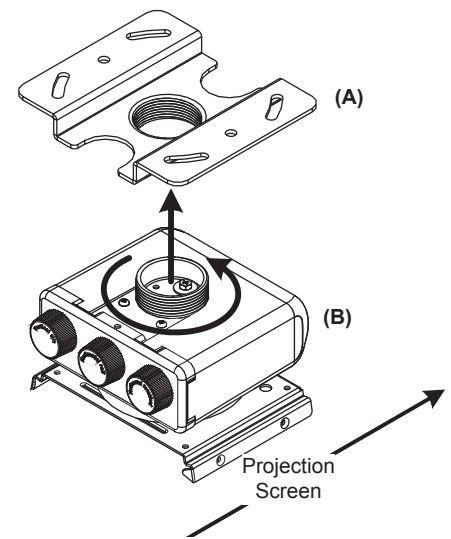
Figure 4
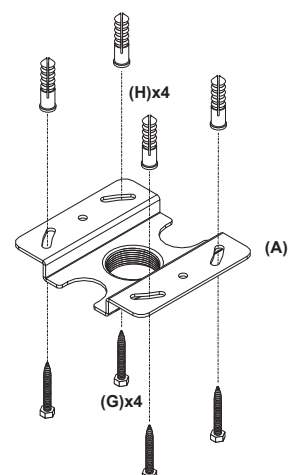
## Step 3. Attach the Projector Mount Body and Optional Extension Accessories

A. If no adapters or accessories are being used, thread the projector mount body (B) into the ceiling plate (A) by hand as tight as possible while still pointing toward the screen correctly, and then skip to step C.

Figure 5

B. If an extension pole or accessory mount is being utilized, thread the extension and any adapters together, and then thread the top of the extension into the ceiling plate/adapter by hand as tight as possible. Tighten any set screws for the accessories at this time (see the manual for the accessory or the Strong Projector Mount Accessory Guide for set screw locations and complete instructions).

C. After the mount body (B) is aimed at the screen, use the 2.5mm Allen Wrench (T1) and M5x5 set screw (J) to secure the mount body in place. Minor alignment changes can be made later using the adjustment knobs.

**Set Screw Location (shown from two angles)**

Figure 6
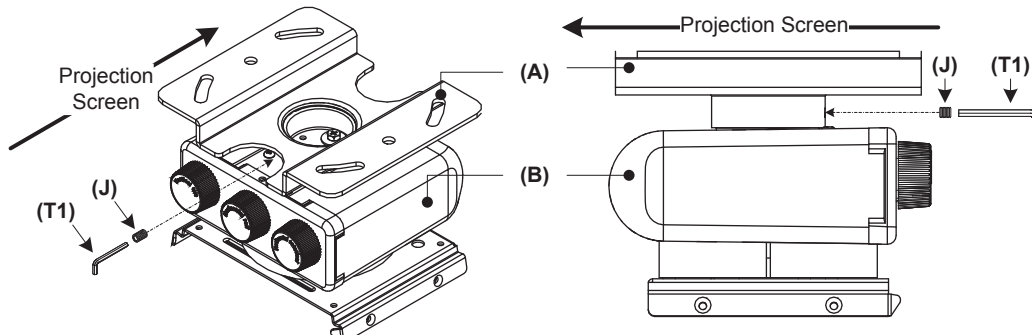
Step 4. Finding the Center of Balance of the Projector

In order for the projector to hang evenly from the mount once it is installed, the center of gravity of the projector must be aligned to the center of the mounting base. Usually the center of gravity will not be in the center of the unit, but slightly closer to the side the lens is on. If the projector has no marking to indicate this location, follow these steps to find the balance.

A. Pick up the projector on opposite sides and try to balance it between both hands. Move your hands forward or back until the projector balances. Once the balance is found, make a temporary mark or note on the projector for reference.

B. Repeat for the opposite axis.

C. The intersection of the lines is the approximate center of balance. Make a temporary mark or note of this point for use in the next step of installation.

Figure 7
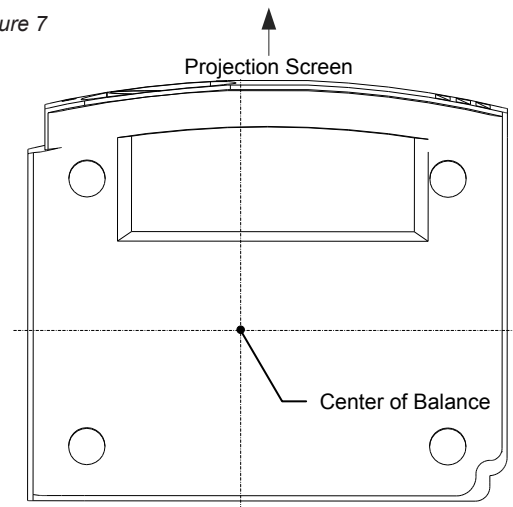
Step 5. Attaching the Mounting Base Assembly to the Projector

After the center of balance is found, the mounting base assembly must be attached to the projector. Attachment will vary for almost every projector, so the position of the arms can be re-configured as needed.

A. Loosen the four bolts (F) holding the arms (D) in place to allow enough movement for alignment, then lay the mounting base assembly over the center-of-gravity mark on the projector and position the arms over the mounting points.

  I. If the arms will not reach all the holes, they can be moved and re-attached in any of the other slots on the mounting base plate. If a projector has only 3 holes, simply remove the un-needed arm.

  II. If an arm is protruding too far out (where it would be visible from below the projector), that arm can be moved to a different slot to allow for a cleaner arrangement.

B. After the ideal location for the arms is found, tighten the arm screws (F) using a #2 Phillips screwdriver.

C. Parts (K) through (X) are the screws and washers included for attachment of the mount to the projector. There are several lengths in each thread size included for use with the spacers (I) if needed. Test the screws in the projector mounting holes until the thread pattern is found.

D. Attach the mounting assembly using the longest screws with the correct thread pitch that will not bottom out in the projector, but will still tighten completely. Use up to two spacers (I) between each arm and the projector to clear protrusions if needed.

  Note: See Figure 9 for an example of the attachment of the arm to the projector body.

  If the M3 or M4 (L through Q) screws are used for attachment, use the washers (K) between the screw head and the arms.

  If the M5 or M6 screws (R through X) are used then no washer is required.
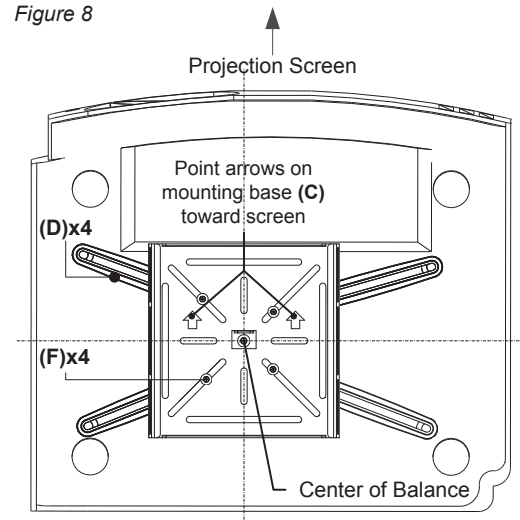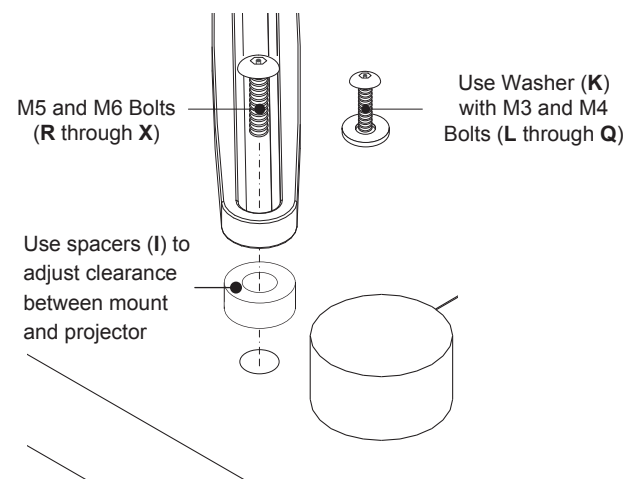
Figure 8

Projection Screen

Point arrows on mounting base **(C)** toward screen

(D)x4

(F)x4

Center of Balance

Figure 9

M5 and M6 Bolts (**R** through **X**)

Use Washer (**K**) with M3 and M4 Bolts (**L** through **Q**)

Use spacers (**I**) to adjust clearance between mount and projector

Step 6. Hanging the Projector

After the projector has been attached to the mounting base, it can be attached to the projector mount body.

1. Lift the projector and position the front lip of the mounting base (C) at the bottom-rear of the mount body (B), and slide it into the opening. (Figure 10)

   The mounting base should slide into the body with ease with the rails engaged on both sides.

   Note: If the mounting base will not slide completely onto the mount body, the mounting base or the mount body has been installed backwards, or the screws (E) are in place and must be removed.

Figure 10

2. Next, insert the screws (E) back into the holes on the base as shown, and leave them loose enough to allow the mounting base to slide forward and backward. (Figure 11)

   Note: Lift the projector some when threading in the screws to avoid cross-threading.

Figure 11

3. Now let the projector hang from the mount. If the projector leans forward or backward, slide the base in the mount body to correct the imbalance. (Figure 12)

4. After the natural position for the best balance is found, tighten all 4 screws (E) securely using the 3mm Allen wrench (T2).
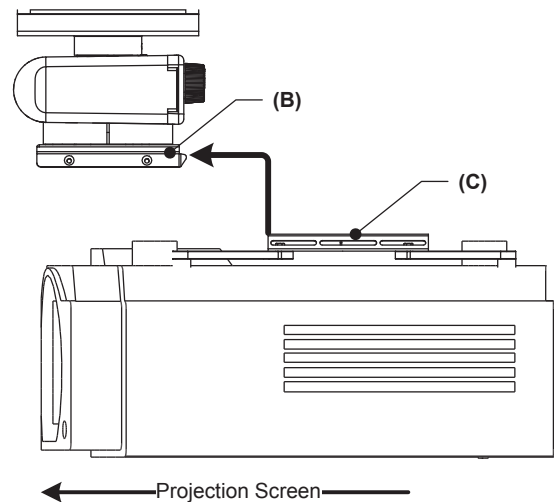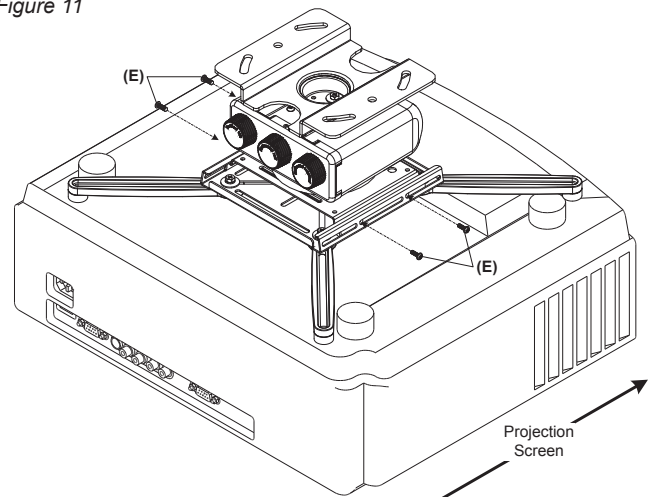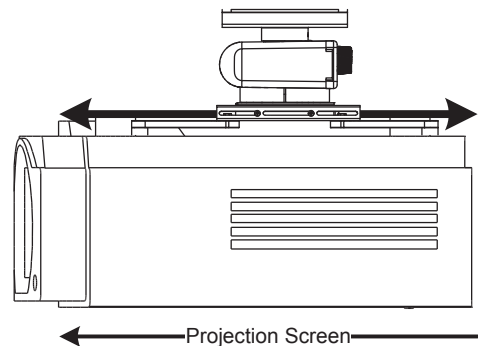
Figure 12

Step 7. Adjusting the Projector Image

Now that the mount and projector are fully assembled and installed, make all connections and power on the projector. Display an image from a source or a pattern generator so that final adjustments can be made. See Figure 13 below for reference.

Move each knob in the desired direction until the image is properly aligned.

Figure 13

Adjustment Knobs

Projection Screen
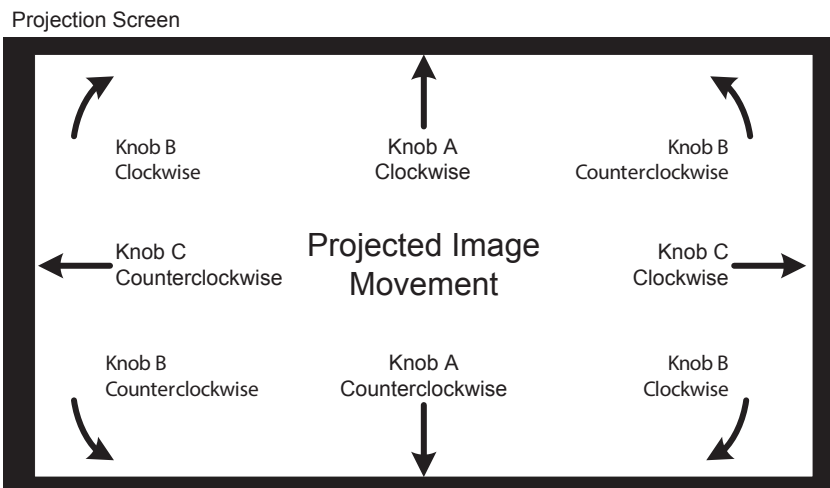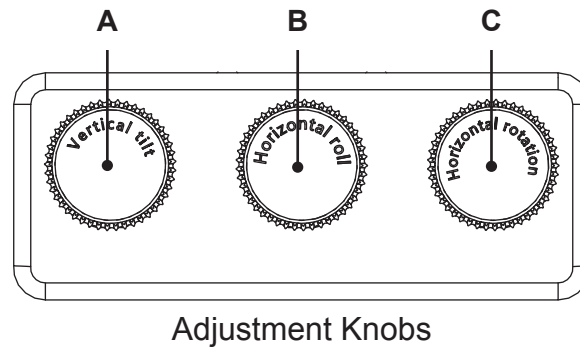
Attach the cover after final adjustments are complete. The SM-PROJ-XL mount is now installed.

Note: The fine adjustment knobs allow for adjustment of up to +/- 5 degrees in each direction. If the adjustments do not allow enough movement to correct an alignment issue, the mount must be adjusted elsewhere.

8.   Specifications

General

| Color	White or Black
Finish Type	Powder Coated, Matte Finish
Product Weight	5 lbs.
Security Features	Includes security hardware for attaching projector
Certifications	UL

Compatibility

Maximum Projector Weight	50 lbs.
Minimum Mounting Pattern	1.96" x 1.96" (50mm x 50mm)
Maximum Mounting Pattern	17.71" x 17.71" (450mm x 450mm)

Adjustments

Vertical Tilt	+/- 5°
Horizontal Roll	+/- 5°
Horizontal Rotation	+/- 5°
Front to Back Slide	3.5°
Offset From Projector	0-.63" (includes 2 optional spacers per screw)

9.   Dimensions
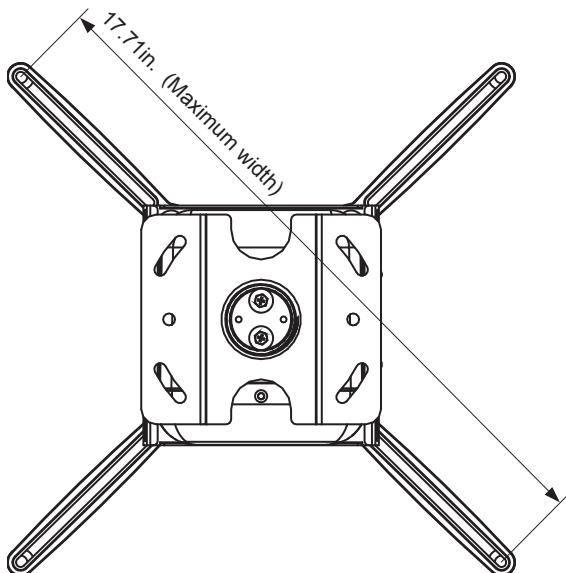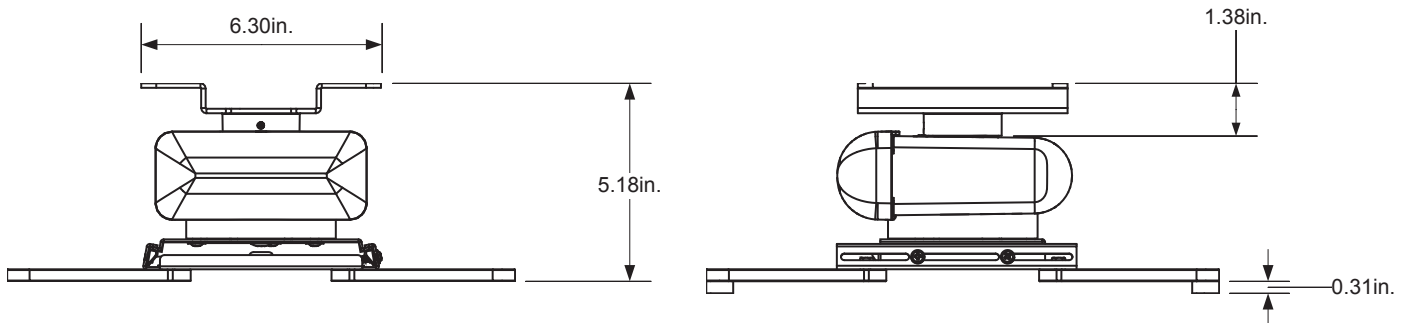
10. Warranty

Lifetime Limited Warranty

Strong™ Mounts have a Lifetime Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products which have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to SnapAV or a designated service center with prior notification and an assigned return authorization number (RA).

11. Contacting Technical Support

Phone: (866) 838-5052

Email: Techsupport@snapav.com

STRONG

engineered by
Snap av