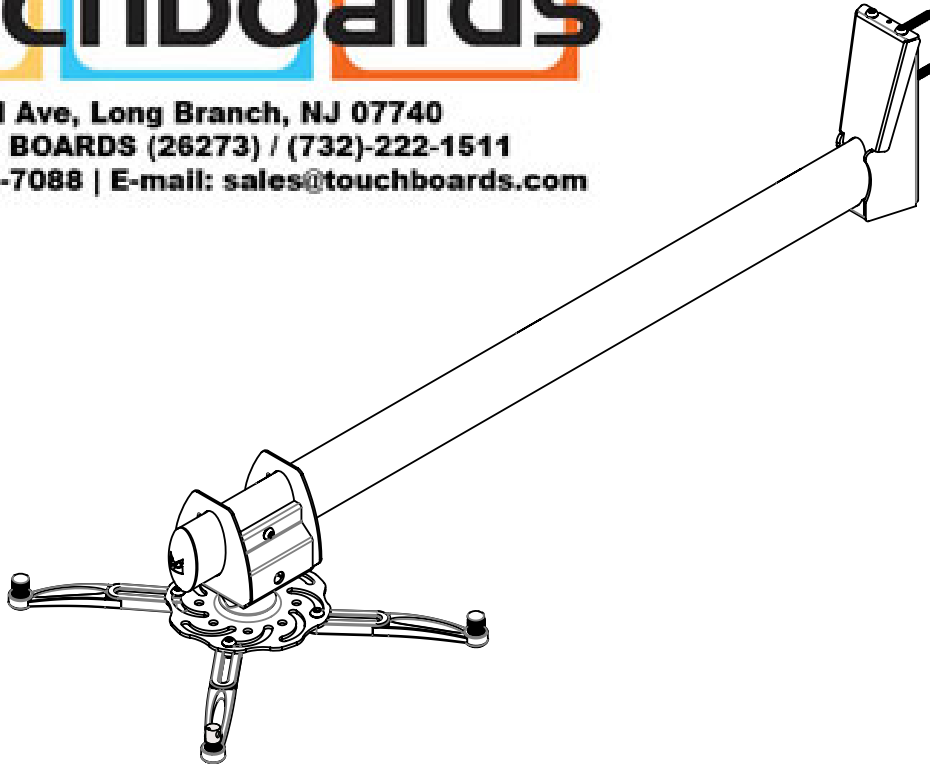


INSTALLATION INSTRUCTIONS

Touchboards

205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 **BOARDS** (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com



Single-Stud Short-Throw Projector Wall Mount

Model: EST150

NORTH AMERICA

3130 East Miraloma Avenue
Anaheim, CA 92806 USA
USA and Canada
Phone: 1-800-368-9700
Fax: 1-800-832-4888
Other Locations
Phone: (001) 714-632-7100
Fax: (001) 714-632-1044

EUROPE

Unit 3, The Moorings Business Park, Channel Way
Longford, Coventry, CV6 6RH, UK
Phone: +44 (0)24 7664 4105
Fax: +44 (0)24 7664 4165



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Weight Capacity


Maximum projector weight: **25 lbs.**


THE WALL STRUCTURE MUST BE CAPABLE OF HOLDING FIVE (5) TIMES THE WEIGHT OF THE PROJECTOR. IF NOT, THEN THE WALL STRUCTURE MUST BE REINFORCED.


Warning Statements


 PRIOR TO THE INSTALLATION OF THIS PRODUCT, THE INSTALLATION INSTRUCTIONS SHOULD BE READ AND COMPLETELY UNDERSTOOD. THE INSTALLATION INSTRUCTIONS MUST BE READ TO PREVENT PERSONAL INJURY AND PROPERTY DAMAGE. KEEP THESE INSTALLATION INSTRUCTIONS IN AN EASILY ACCESSIBLE LOCATION FOR FUTURE REFERENCE.


 PREMIER MOUNTS DOES NOT WARRANT AGAINST DAMAGE CAUSED BY THE USE OF ANY PREMIER MOUNTS PRODUCT FOR PURPOSES OTHER THAN THOSE FOR WHICH IT WAS DESIGNED OR DAMAGE CAUSED BY UNAUTHORIZED ATTACHMENTS OR MODIFICATIONS, AND IS NOT RESPONSIBLE FOR ANY DAMAGES, CLAIMS, DEMANDS, SUITS, ACTIONS OR CAUSES OF ACTION OF WHATEVER KIND RESULTING FROM, ARISING OUT OF OR IN ANY MANNER RELATING TO ANY SUCH USE, ATTACHMENTS OR MODIFICATIONS.

 SAFETY MEASURES MUST BE PRACTICED AT ALL TIMES DURING THE ASSEMBLY OF THIS PRODUCT. USE PROPER SAFETY GEAR AND TOOLS FOR THE ASSEMBLY PROCEDURE TO PREVENT PERSONAL INJURY.


 At least two qualified people should perform the assembly procedure. Injury and/or damage can result from dropping or mishandling the projector.


 If mounting to studs, make sure that the mounting screws are anchored into the center of the studs. Use of an edge-to-edge stud finder is recommended.

 Be aware of the mounting environment. If drilling and/or cutting into the mounting surface, always make sure that there are no electrical wires in wall. Cutting/drilling into an electrical line may cause serious injury.

 Make sure there are no water lines inside the wall where the mount is to be located. Cutting/drilling into a water line may cause severe water damage to the mounting surface.

 This product is intended for indoor use only. Use of this product outdoors could lead to product failure and personal injury.

 Do not install near sources of high heat. Do not install on a structure that is prone to vibration, movement or chance of impact

 Contact Premier Mounts with any questions
(800) 368-9700
techsupport@mounts.com



Installation Tools

The following tools may be required depending upon your particular installation. They are not included.

	<p>Phillips Screwdriver</p>	<p>1/8" Drill Bit</p>	<p>Electronic Stud Finder</p>
		<p>Drill</p>	<p>Level</p>

Parts List

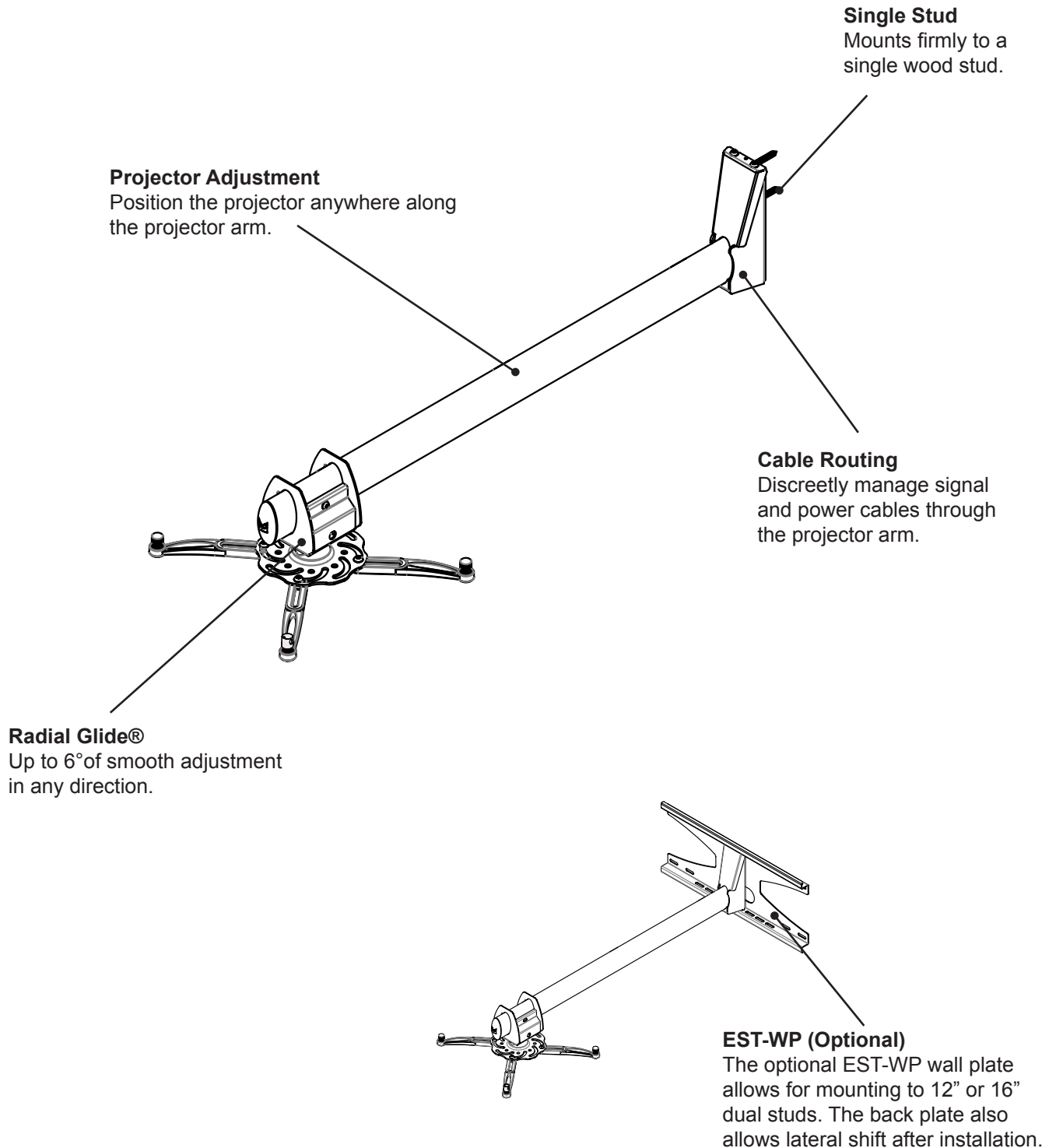
Make sure your Premier Mounts product has the following hardware and components before beginning installation. If there are parts missing and/or damaged, stop the installation and call Premier Mounts at (800) 368-9700.

EST150 Hardware					
<p>Projector Arm (Qty 1)</p>	<p>Projector Arm Cover Plate (Qty 1)</p>	<p>Mount Carriage (Qty 1)</p>			
<p>M3 Flat Washer (Qty 4)</p>	<p>M2.5 x 8mm Security Screw (Qty 4)</p>	<p>M2.5 x 10mm Security Screw (Qty 4)</p>	<p>M3 x 16mm Security Screw (Qty 4)</p>	<p>M4 x 12mm Security Screw (Qty 4)</p>	<p>M5 x 10mm Security Screw (Qty 3)</p>
<p>M5 x 12mm Security Screw (Qty 4)</p>	<p>M6 x 12mm Security Screw (Qty 4)</p>	<p>#14 x 2" Wood Screw (Qty 2)</p>	<p>1/4-20 x 5/16" Security Screw (Qty 1)</p>	<p>M5 Security Wrench (Qty 1)</p>	<p>Barrel Cap (Qty 4)</p>



Features

The Single-Stud Short-Throw Projector Wall Mount (EST150) is a simple and elegant tool for mounting a wide variety of short-throw projectors. Its design allows you to use the same mount even if you need to replace the projector with a different model. Unique features include a mount carriage that easily slides along the projector arm for quick screen size adjustments, integrated cable management, and Lock-It™ security screws and barrel for enhanced security.





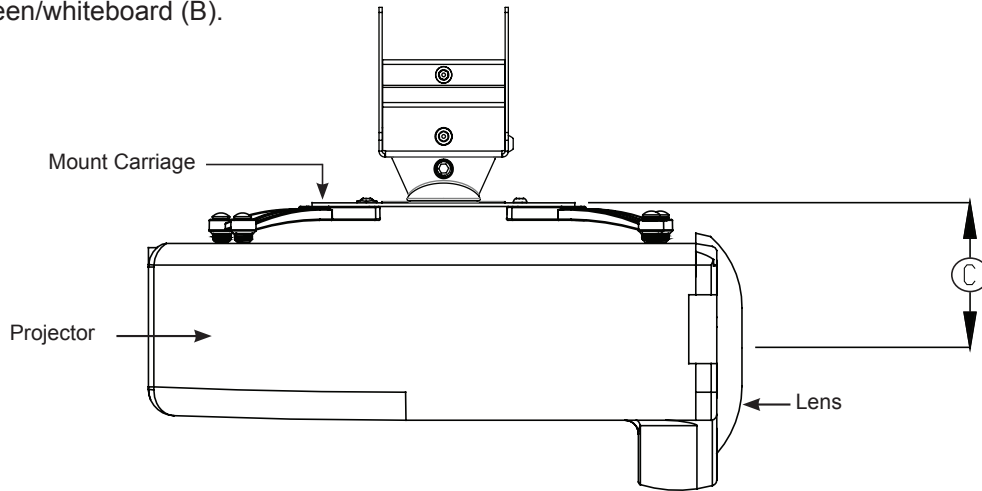
Determining the Installation Height



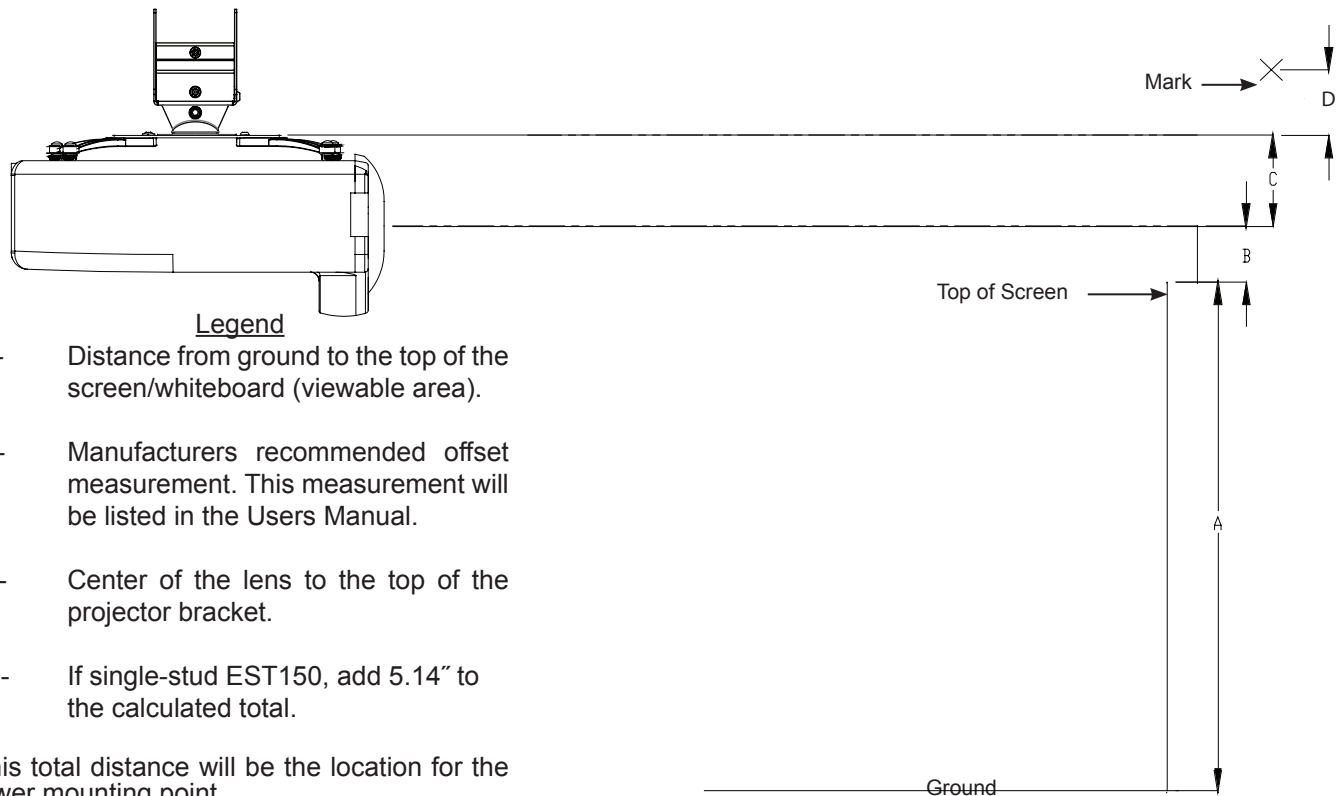
In order to determine the installation height and throw distance, the mount carriage must be mounted to the projector.



Refer to the projector's User's Manual to determine the offset of the projector lens to the top of the screen/whiteboard (B).



- 1) Measure distance from center of lens to the top of the mount carriage (C).
- 2) Add the distance from the ground to the top of the screen (A). Add the projector manufacturer's recommended offset from the projector manual (B). Add the measurement from Step 1 (C), and then add the mounting screw offset (D) to the total.
(Example: $A + B + C + D = ?$)
- 3) Add the measurements to determine the mounting height mark. Place a mark at the top of the total calculated height measurement starting from the ground up. This height mark will determine your mounting points.



Legend

- A - Distance from ground to the top of the screen/whiteboard (viewable area).
- B - Manufacturer's recommended offset measurement. This measurement will be listed in the User's Manual.
- C - Center of the lens to the top of the projector bracket.
- D - If single-stud EST150, add 5.14" to the calculated total.

This total distance will be the location for the lower mounting point.

Proceed to the **"Wood Stud Installation"** section.



Wood Stud Installation



Do NOT over-tighten lag bolts when attaching the mount to the wall. Improper installation may result in personal injury or damage to property.

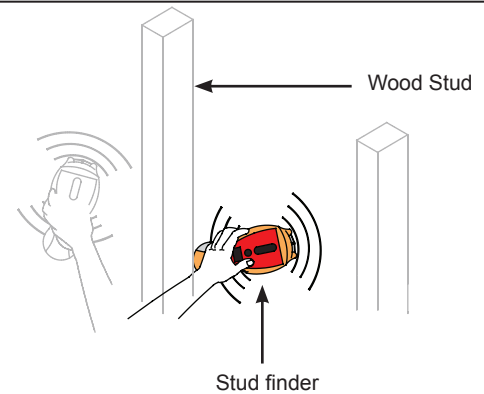


THE EXACT CENTER OF THE STUD MUST BE LOCATED FOR CORRECT AND SAFE INSTALLATION.

EST150 Installation

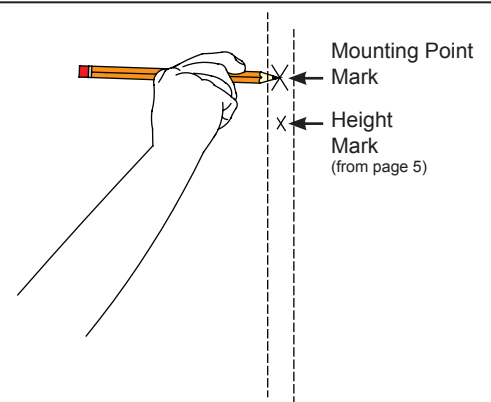
Step 1

Use an electronic stud finder (not supplied) to locate the center of the stud that is in the wall.



Step 2

Use a pencil to mark the first mounting point, just above your height mark (from page 5).

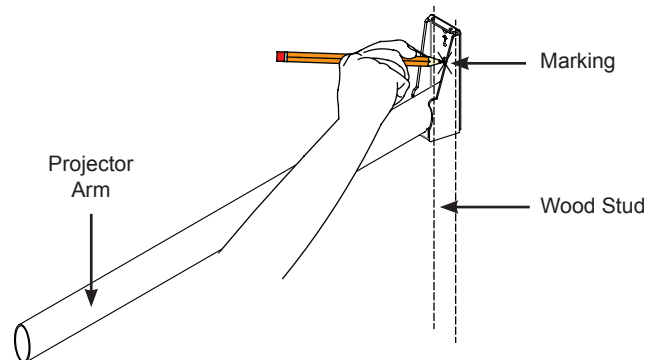


Step 3

- 1) Use the level to make sure the projector arm is level from side to side.
- 2) Place the projector arm's second mounting hole over the first mounting point mark, then use a pencil to mark the upper mounting point.



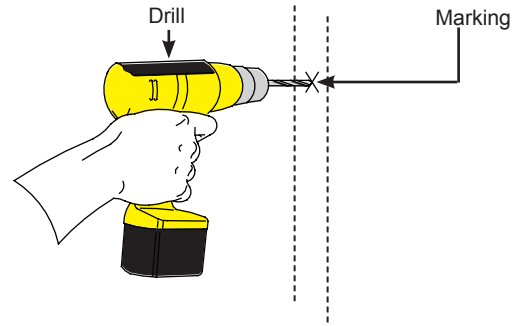
Two (2) mounting points must be used.





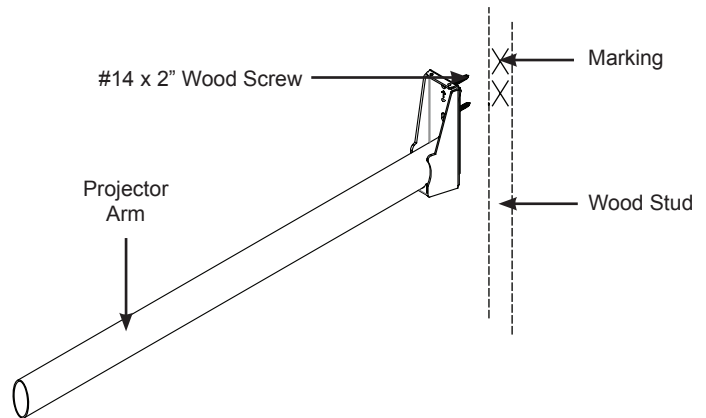
Step 4

Once the mounting points have been marked, use a $\frac{1}{8}$ " drill bit and portable drill to drill the pilot holes.



Step 5

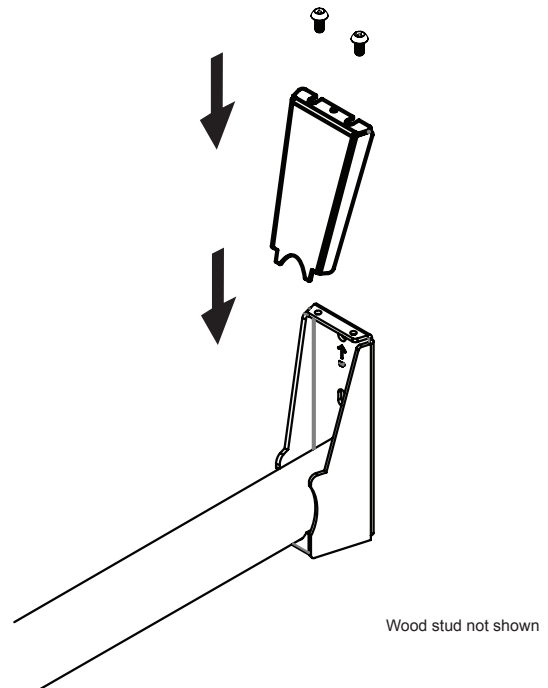
After the pilot holes have been drilled, use two (2) #14 x 2" wood screws to mount the projector arm to the wooden stud.



Step 6

Use two (2) M5 x 10mm security screws to attach the projector arm cover plate to the projector arm.

Go to the "**Throw Distance Calculation**" section on page 10.





Throw Distance Calculation



Please review the Operator's Manual that came packaged with your projector before attaching the upper mounting bracket. The correct throw distance (the distance from the projector to the screen) must be determined prior to mounting the projector.

- 1) Refer to the projector's User's Manual to determine the distance from the lens to the front of the screen (X).
- 2) Measure the distance from the front of the lens to the center of the projector (Y).
- 3) Measure the distance from the wall to the face of the whiteboard/screen (Z).
- 4) Add all measurements (X + Y + Z) to determine projector placement on the arm assembly. This measurement will determine where the center of the mount bracket will be located on the arm assembly. Please make note of this measurement.

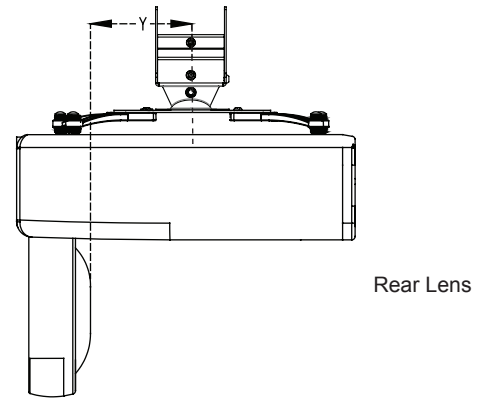
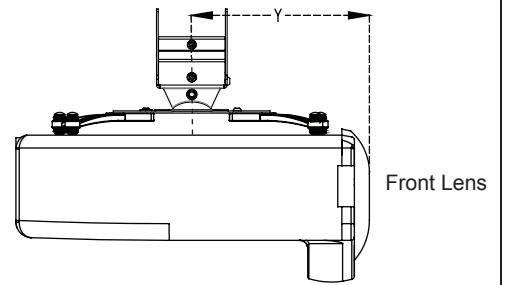
Calculations

X = Manufacturer's recommended throw distance

Z = Distance from wall to face of whiteboard/screen

Front Lens Throw Distance = (X + Y + Z)

Rear Lens Throw Distance = (X - Y + Z)



The EST150 can be also used as a wall-mounted standard projector mount as well as a short throw projector mount. Align the projector facing the opposite direction from the wall plate to project the image across the room. Please take into account the projector's throw capabilities prior to mounting in the projector opposite direction.

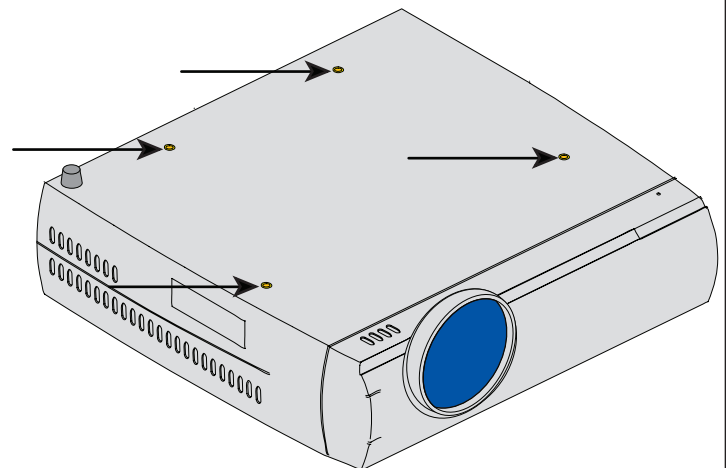
Proceed to the "Projector Installation" section.

Projector Installation

Attaching the Projector to the Mount Carriage

Locate the mounting points on the bottom of the projector (see arrows).

Proceed to the "Attaching the Mount Carriage" section.





Attaching the Mount Carriage

Selecting the Mounting Hardware

- 1) Insert a small straw or toothpick into the threaded inserts found on the bottom or top of the projector.
- 2) Use a pencil to mark the depth of the threaded insert on the small straw or toothpick.
- 3) Mark the straw or toothpick 1/8" above the depth of the threaded insert, as shown in Figure 1.
- 4) Insert the small straw or toothpick into the remaining threaded inserts to compare and verify their depth using the straw or toothpick's 1/8" allowance mark.
- 5) Locate the correct diameter screw for the threaded insert.



If the screw you selected is longer than the 1/8" allowance mark on the small straw or toothpick, as shown in Figure 2 and Figure 3, do not use this screw. The screw length must not bypass the mark.

- 6) Test each size of the screws provided. The correct screws should thread easily into the mounting point and not pull out when tension is applied.



Does your projector have multiple mounting points or a single mounting point?

If your projector has multiple mounting points, proceed to the "**Multiple Mounting Point Installation**" section.

If your projector has a single mounting point, skip to the "**Single Mounting Point Installation**" section on page 14.

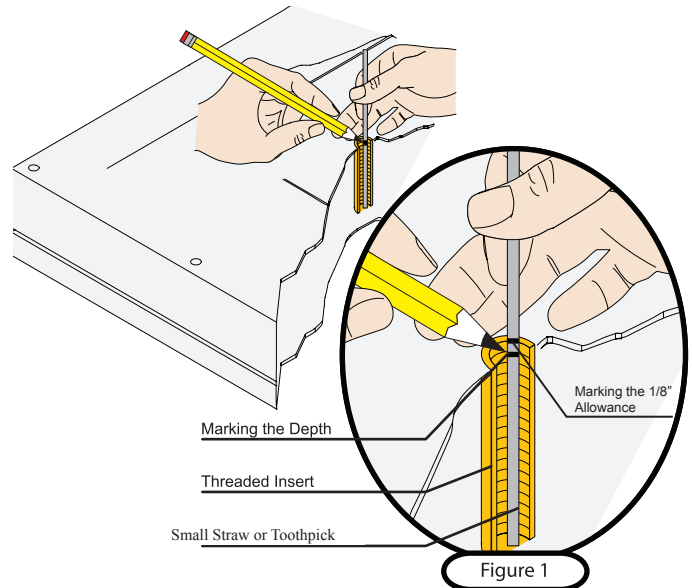


Figure 1

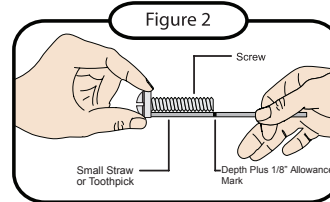


Figure 2

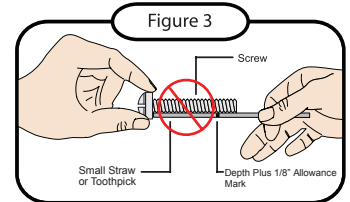
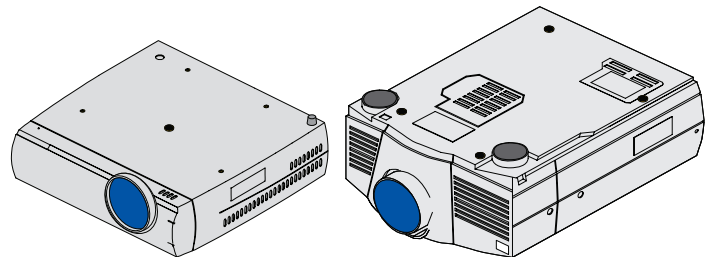


Figure 3





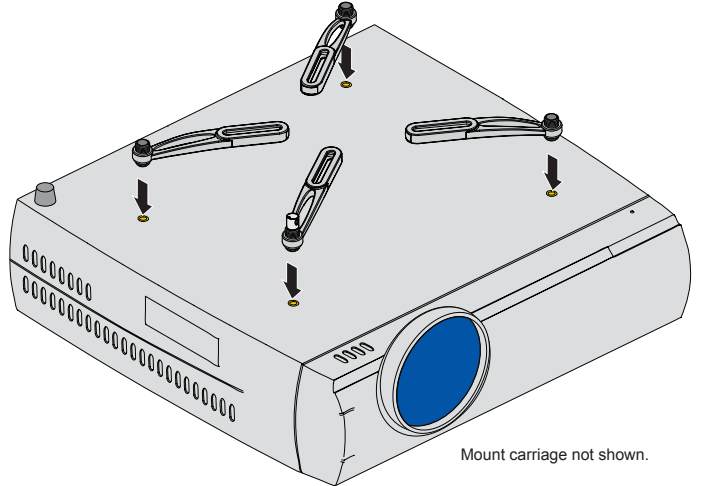
Multiple Mounting Point Installation

Step 1

- 1) Locate the projector's mounting points.
 - 2) Position the mounting legs on the projector.
- The mounting legs are pre-installed. Depending on the requirements of your projector, you may remove one of the mounting legs.



The number and placement of mounting points on projectors varies between projector manufacturers. Refer to your projector's technical specifications for the number and location of the mounting points on your specific projector.

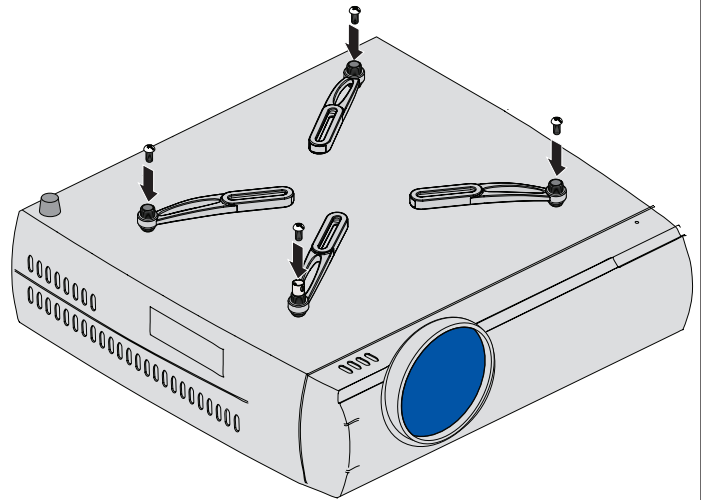


Step 2

- 1) Attach the mounting legs to the projector using the corresponding mounting hardware.




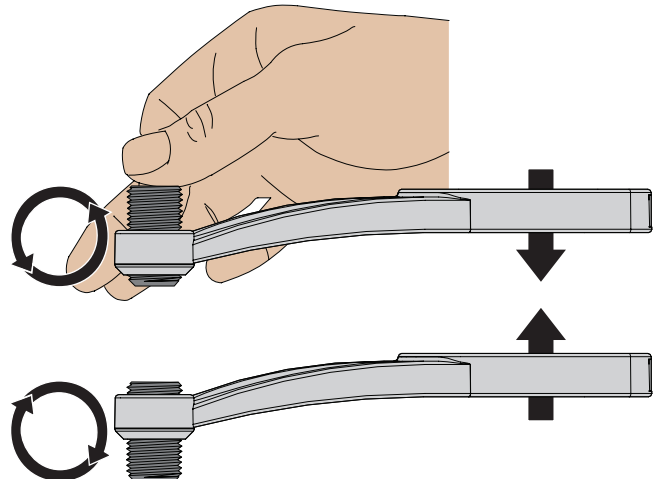
Do not tighten the mounting hardware at this time.



Screws shown for illustration purposes only.

Step 3

- 1) If the mounting legs need to be leveled, rotate the leveling barrels to level the mounting bracket.
 - 2) To raise the mounting legs, rotate the leveling barrel clock-wise. To lower the mounting leg, rotate the leveling barrel counter clock-wise.
-  Raise or lower each of the mounting legs, by rotating the leveling barrels, until all of the mounting legs are at an equal height.
- Lower the mounting leg by rotating the leveling barrel counter-clockwise.
 - Raise the mounting legs by rotating the leveling barrel clockwise.
- 3) When the desired position is achieved, tighten the mounting screws to the projector and then tighten the hex head leg screws with the M5 Allen wrench.





Pro Tip



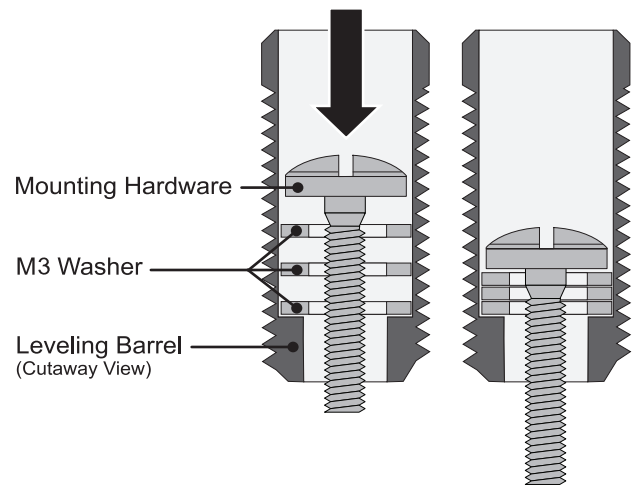
Mounting Hardware Too Long?

The depth of some projector mount points may prevent you from tightening the M2.5 and M3 mounting hardware.

You can reduce the length of the M2.5 and M3 mounting hardware by stacking up to a maximum of five (5) M3 flat washers inside the leveling barrel.

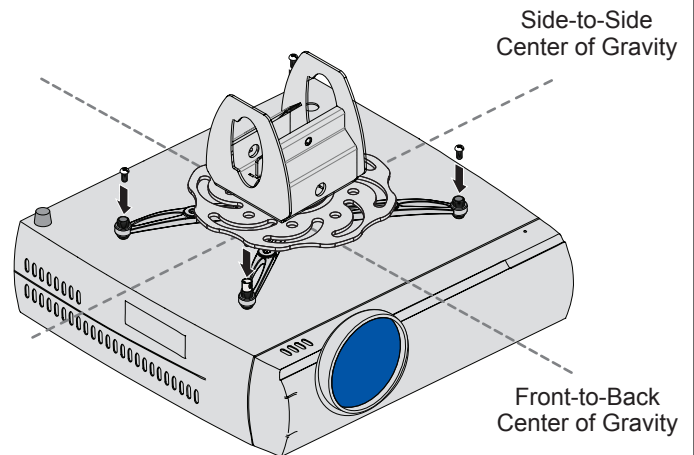


Avoid stacking too many M3 washers; the mounting hardware must thread into the projector mount point at least four (4) complete turns.



Step 4

- 1) Identify the projector's approximate front-to-back center of gravity. Place your hands on each side of the projector and gently lift it an inch from the surface on which it is resting. Carefully adjust your grip on the projector until it seems balanced from front-to-back. Mentally note the apparent center of gravity.
- 2) Identify the projector's approximate side-to-side center of gravity. Place your hands on the front and back of the projector and gently lift it an inch from the surface on which it is resting. Carefully adjust your grip on the projector until it seems balanced from side-to-side. Mentally note the apparent center of gravity.
- 3) Make sure the mount carriage is as close as possible to the projector's center of gravity.

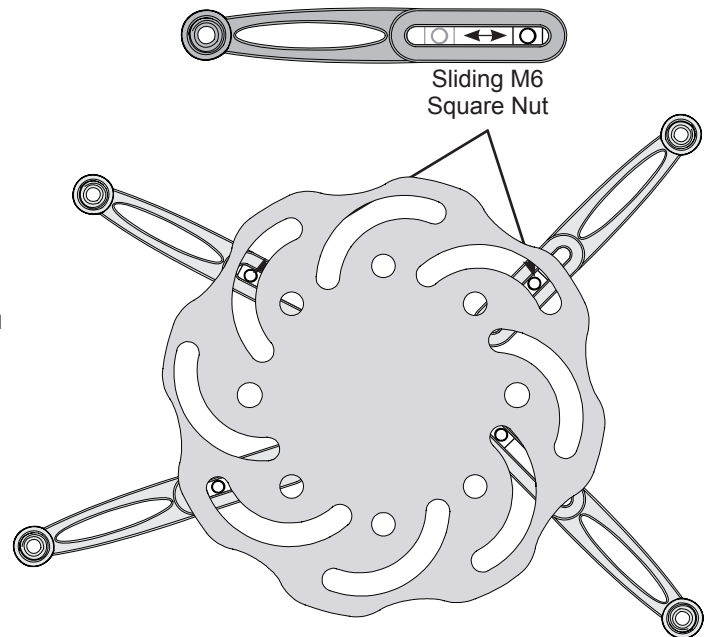


Step 5

- 1) Position the legs accordingly for best configuration. You may raise or lower each leg independently by turning the leveling barrels.
- 2) Secure the legs to the mount carriage by screwing M6 x 12mm security screws into the M6 square nut (do not overtighten) on the mounting legs.
- 3) Verify the position of the integrated sliding M6 square nut in the mounting leg relative to a nearby slot on the mount carriage.




If the M6 square nut is not aligned with any slot, you can use any thin implement, such as a toothpick, to nudge it into alignment.

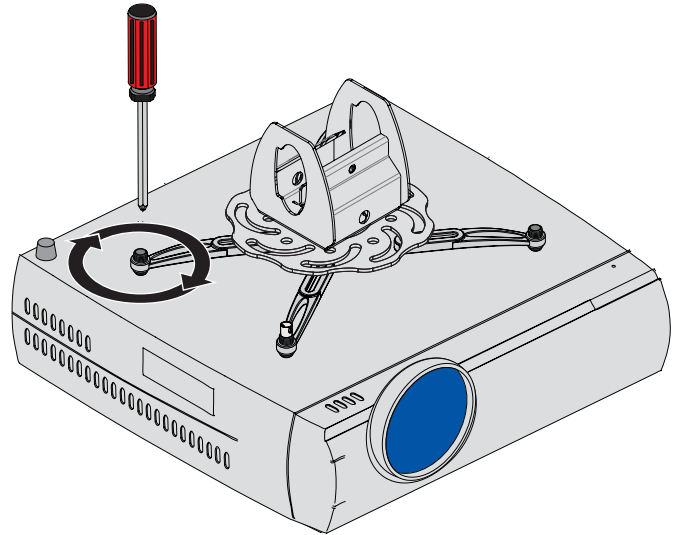




Step 6

- 1) Tighten the mounting screws which secures the mounting legs to the projector.

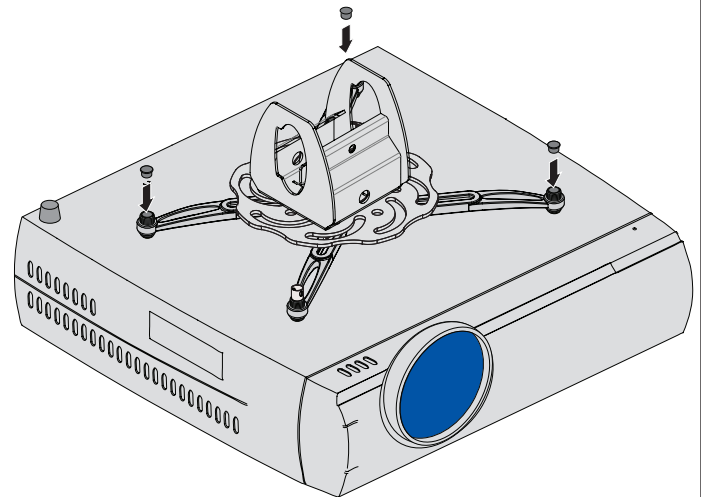
 Do not overtighten the mounting screws.



Step 7


- 1) Insert one (1) Barrel Cap (except for the security barrel) into the end of each leveling barrel.

Go to the “**Attaching the Mount Carriage to the Projector Arm**” section on page 15.

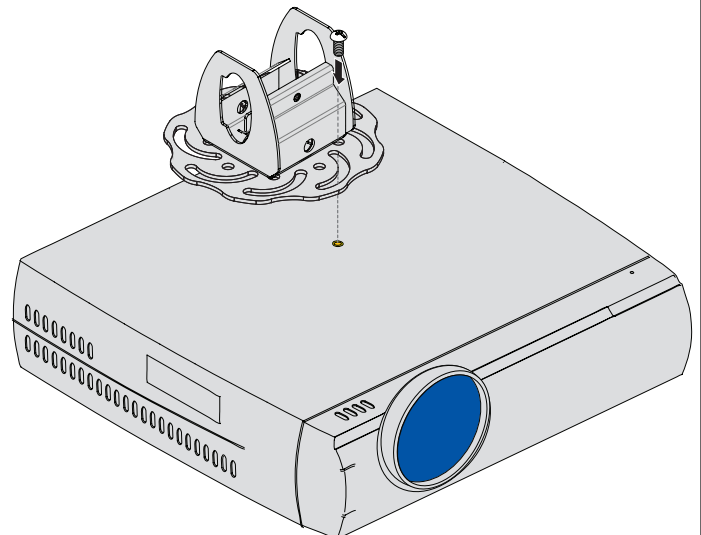


Single Mounting Point Installation

A single $\frac{1}{4}$ -20 x $\frac{5}{16}$ " screw must be used to attach the mount carriage to the projector if your projector has only one mounting point.

 Do not overtighten the $\frac{1}{4}$ -20 x $\frac{5}{16}$ " screw.

Proceed to the “**Attaching the Mount Carriage to the Projector Arm**” section on page 15.

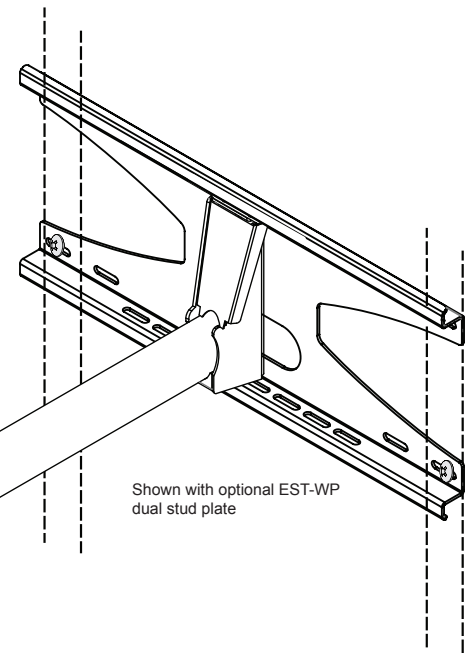




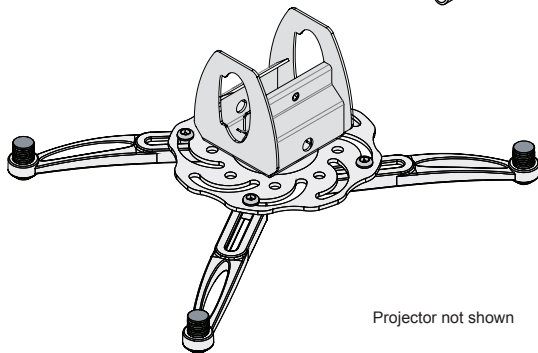
Attaching the Mount Carriage to the Projector Arm

Step 1

Insert and slide the mount carriage along the projector arm to the desired position.



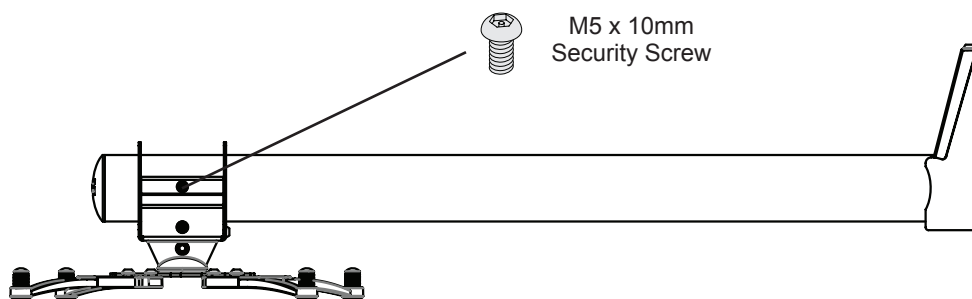
Shown with optional EST-WP dual stud plate



Projector not shown

Step 2

Once you have the desired position, use one (1) M5 x 10mm security screw to tighten the mount carriage in place.



M5 x 10mm
Security Screw

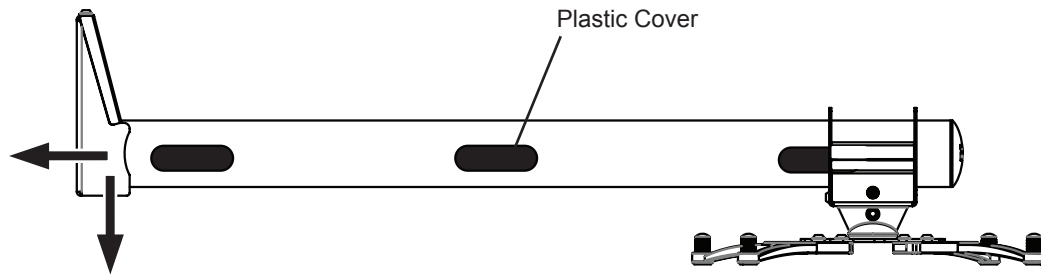
Proceed to the “**Cable Routing (Optional)**” section on page 16.



Cable Routing (Optional)

- 1) Remove the plastic cover(s) from the cable routing openings.
- 2) Route cables and wiring through the openings then out the back or bottom near the wall.

Proceed to the **“Securing the Projector (Optional)”** section.



Route cables and wiring through the projector arm openings then out the back or bottom near the wall.

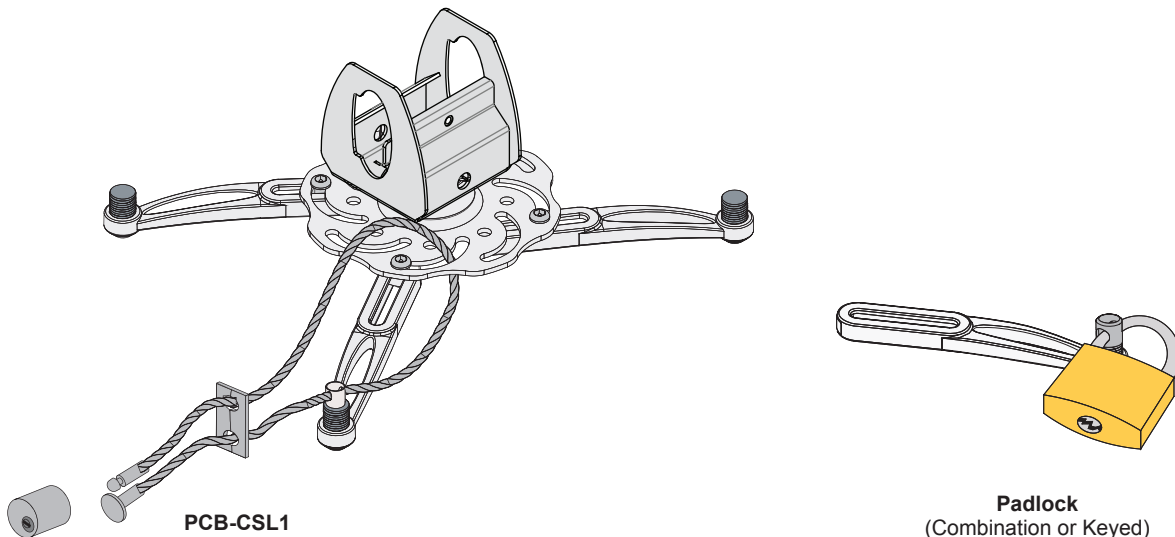
Securing the Projector (Optional)

Your EST150 includes one (1) Security Barrel which can provide additional theft deterrence for your projector.

Shown below are two examples of how you can use the security barrel to make your projector installation more secure: the PCB-CSL1 Security Cable (sold separately) or padlock (combination or keyed; sold separately). Follow the instructions below to install and secure the security barrel.

- 1) Determine which leveling barrel will be removed.
- 2) Remove the mounting screw.
- 3) Remove the leveling barrel by turning the leveling barrel counter-clockwise.
- 4) Thread in the security barrel clockwise.
- 5) Insert and tighten the mounting screw.
- 6) Attach theft deterrent device (PCB-CSL1 or padlock) through the hole that is on the security barrel.

Proceed to the **“Mount Adjustment”** section on page 17.





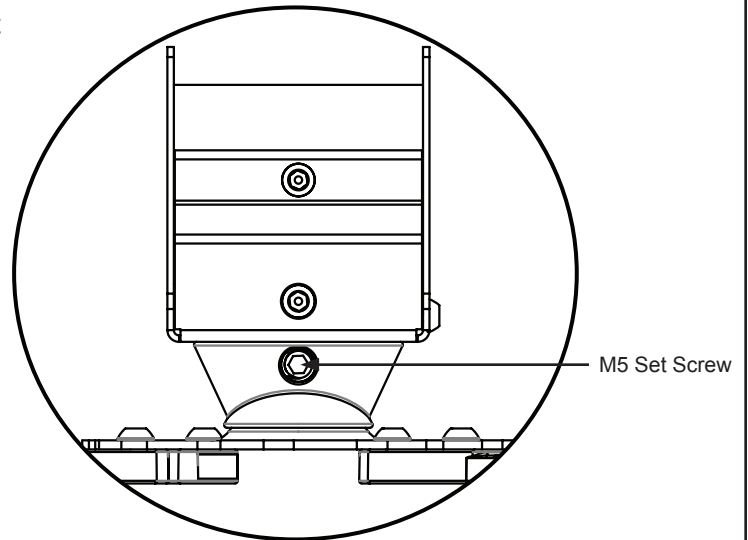
Mount Adjustment

After the projector has been installed, the projector must then be adjusted. To adjust the projector:

- 1) Loosen the M5 set screw using the M5 Allen wrench (both sides).
- 2) Adjust the projector to the correct position. Firmly grasp the projector in both hands, and tilt either forward or backward to adjust the level.

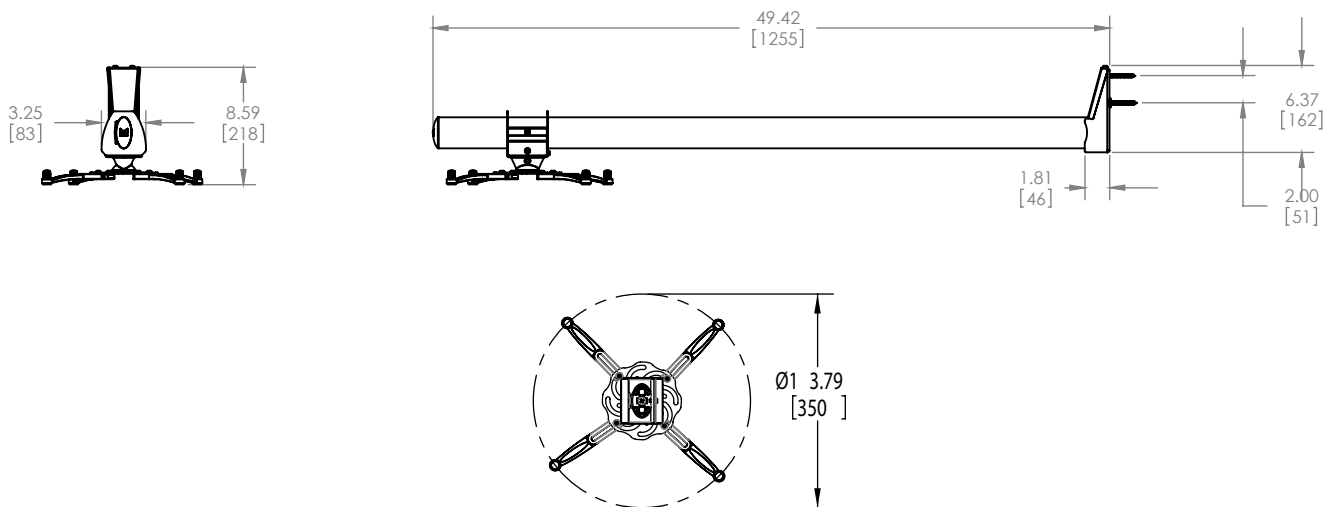
-OR-

- 1) Firmly grasp the projector in both hands and rotate side to side for orientation adjustment.
- 2) Tighten both M5 set screws using the M5 Allen wrench.



Technical Specifications

All measurements are in inches(mm).





Warranty

PREMIER MOUNTS LIMITED LIFETIME WARRANTY

What and Who is Covered by this Limited Warranty and for How Long

Premier Mounts warrants this product to be free from defects in material and workmanship for the lifetime of the original owner of this product. The limited warranty is valid only for the original purchaser of the product.

What Premier Mounts Will Do

At the sole option of Premier Mounts, Premier Mounts will repair or replace any product or product part that is defective. If Premier Mounts chooses to replace a defective product or part, a replacement product or part will be shipped to you at no charge, but you must pay any labor costs.

What is Not Covered; Limitations

PREMIER MOUNTS DISCLAIMS ANY LIABILITY FOR DAMAGE TO MOUNTS, ADAPTERS, DISPLAYS, PROJECTORS, OTHER PROPERTY, OR PERSONAL INJURY RESULTING, IN WHOLE OR IN PART, FROM IMPROPER INSTALLATION, MODIFICATION, USE OR MISUSE OF ITS PRODUCTS.

PREMIER MOUNTS DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. PREMIER MOUNTS IS NOT RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO, INABILITY TO USE ITS PRODUCTS OR LABOR COSTS FOR REMOVING AND REPLACING DEFECTIVE PRODUCTS OR PARTS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

What Customers Must Do for Limited Warranty Service

If you discover a problem that you think may be covered by the warranty you MUST REPORT it in writing to the address below within thirty (30) days. Proof of purchase (an original sales receipt) from the original consumer purchaser must accompany all warranty claims. Warranty claims must also include a description of the problem, the purchaser's name, address, and telephone number. General inquiries can be addressed to Premier Mounts Customer Service at 1-800-368-9700. Warranty claims will not be accepted over the phone or by fax.

Premier Mounts
Attn: Warranty Claim
3130 East Miraloma Ave.
Anaheim, CA 92806

How State Law Applies

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

Disclaimer

Premier Mounts intends to make this manual accurate and complete. However, Premier Mounts makes no claim that the information contained herein covers all details, conditions or variations, nor does it provide for every possible contingency in connection with the installation or use of this product. The information contained in this document is subject to change without notice or obligation of any kind. Premier Mounts makes no representation of warranty, expressed or implied, regarding the information contained herein. Premier Mounts assumes no responsibility for accuracy, completeness or sufficiency of the information contained in this document.



205 Westwood Ave, Long Branch, NJ 07740
Phone: 866-94 BOARDS (26273) / (732)-222-1511
Fax: (732)-222-7088 | E-mail: sales@touchboards.com