

# SQUARE

Climbing Panel

## Installation, Operation, & Maintenance Manual



**WARNING** – Improper assembly or use of this product and the activity of climbing and bouldering have risks that can lead to injury, paralysis and even death. Read these instructions and warnings before assembly, installation, and use!

### Always Read Instructions Before Assembly

Please read the following statement and contact Eldorado Climbing Walls, in writing, if the intent of this document is unclear or questions arise. **YOU SHOULD NOT OPERATE THE PRODUCTS IN THIS MANUAL IF YOU DO NOT FULLY UNDERSTAND HOW TO OPERATE THEM SAFELY!**

This Manual contains information on the proper assembly, maintenance, and use of the SQUARE Climbing Panel and includes all product warranty information. Ensure that this manual is readily available to users at all times!

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# SAFETY INFORMATION

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## IMPORTANT SAFETY NOTICE Climbing Is A Dangerous Activity

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### READ BEFORE INSTALLATION AND USE

**Failure by the user to heed any and all instructions, warnings and cautions for the correct installation, operation, care, and maintenance of the SQUARE Climbing Panel may result in serious injury or death.**

The SQUARE Climbing Panel is designed and specified for use in recreational climbing as a self-installable climbing wall product. Use of the SQUARE Climbing Panel for any purposes other than that intended by the manufacturer is not recommended. The SQUARE Climbing Panel must never be installed onto any surface other than those specified within this manual.

Owners and users of the SQUARE Climbing Panel are responsible for the safety and supervision of any person using the product and for ensuring proper installation and operation procedures are followed at all times. Proper installation requires careful planning and fastener placement on the SQUARE Climbing Panel and associated components, including the supporting wall's structural elements. Owners and users are encouraged to seek the advice of a qualified professional contractor regarding the installation instructions in this manual.

The SQUARE Climbing Panel is designed to be mounted to your building wall using a variety of mounting methods. These mounting methods are horizontal ledgers provided by the customer, or 3 options of mounting frames supplied by Eldorado including the Flat Frame, Box Frame, and Wedge Frame. For all the mounting methods provided, refer to the table on page 12 for required mounting hardware on various wall types. Brick is NOT an acceptable mounting surface for any mounting method outlined in this manual.

It is the responsibility of the installer to verify existing walls meet the minimum structural requirements listed in this document and are of sound construction without any defects. Eldorado is not responsible for verifying the structure for climbing panel attachment.

The SQUARE Climbing Panel is designed to be used for bouldering, a style of free-climbing without a belay, and in conjunction with adequate engineered fall attenuation surfaces. No component of the SQUARE Climbing Panel is appropriate for use as part of an anchor or belay system.

Should roped-climbing be desired, an engineered rope belay mount and/or auto belay mount is strictly required. Owners and users are responsible for the proper installation and use of these belay systems at all times.

# SAFETY INFORMATION

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These instructions must be made available to the user at all times. Prior to installation and use all owners, installers, and users must have read and understand all instructions, labels, markings, and safety information pertaining to the installation, operation, and maintenance of the SQUARE Climbing Panel, its component parts, and all associated hardware. Failure to do so may result in equipment damage, serious injury, and/or death.

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## SYMBOLS USED IN THIS MANUAL

The following safety symbols are used throughout this manual to highlight potential dangers. One or more precautions may be associated with practices and procedures described within this manual. Failure to adhere to any precautions highlighted can result in death, serious injury, or equipment damage.

**Ensure that you read and understand all safety procedures.**

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### DANGER

Indicates a hazardous situation exists that, if not avoided, will result in serious injury or death.



### WARNING

Indicates a potentially hazardous situation that, if not avoided, could result in serious injury or death.



### CAUTION

Indicates a potentially hazardous situation that, if not avoided, may result in injury or equipment damage.



### NOTE

Indicates an action that must be taken to ensure personal safety and prevent damage to property or equipment.



### CARE FOR THE ENVIRONMENT

Take care to dispose of all materials in a responsible manner.

Recycle all packaging materials.

# SAFETY INFORMATION

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## **WARNING**

### **Climbing Is A Dangerous Activity**

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Climbing is inherently dangerous and may result in serious injury or death of a participant. The SQUARE Climbing Panel is designed and specified for recreational climbing as an indoor-only self-installable climbing wall product which can be mounted on any appropriate support structure that meets its loading specifications including Concrete Masonry Unit (CMU), Concrete, Metal Studs and Wood Studs. Brick is NOT an acceptable structure to attach to.

Users of the SQUARE Climbing Panel are solely responsible for learning, implementing, and conveying to participants proper climbing techniques, including falling and good judgment. This includes knowing and observing the product's capabilities and limitations and ensuring the climbing area is free and clear from all obstructions including, but not limited to: furniture, protrusions, structures, or other objects, climbers, or observers. Users must be aware of all necessary precautions and dangers and must educate all participants in the proper use of the SQUARE Climbing Panel as well as all third-party equipment such as modular handholds and fall attenuation padding.

The SQUARE Climbing Panel is designed to be used for bouldering, a style of free-climbing without a belay, and in conjunction with adequate engineered fall attenuation surfaces.

No component of the SQUARE Climbing Panel is appropriate for use as part of an anchor or belay system. All anchors, belay systems and associated components must be suitable for use within a climbing system and must meet all applicable laws, regulations and standards. Owners and users are responsible for the proper installation and use of these belay systems at all times.

It is the responsibility of the installer to verify existing walls meet the minimum structural requirements listed in this document and are of sound construction without any defects. Eldorado is not responsible for verifying the structure for climbing panel attachment.

Seeking the advice of a qualified professional prior to installation and use is strongly recommended.

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# WARRANTY INFORMATION

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Eldorado warrants the SQUARE Climbing Panel to be free from manufacturing defects in materials and workmanship for one (1) year. This Warranty extends only to the original purchaser and does not cover damages resulting from misuse, abuse to the product, exposure to the elements, damage in transit, or any other damage beyond the control of Eldorado Climbing Walls.

This warranty is voided if other parts are substituted for Eldorado-provided parts or if any modifications or services have been performed on the product by anyone other than Eldorado Climbing Walls. Eldorado will, at its sole discretion, repair or replace any SQUARE Climbing Panels covered by this warranty.

Should your product arrive damaged, you must document the damage on the shipping company's Bill of Lading (BOL) and note for yourself. Photograph damage and send photos to Eldorado Climbing Walls. Eldorado will work with you to replace the damaged panel.

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## SATISFACTION GUARANTEE

We guarantee everything we make. If you are not satisfied with one of our products at the time you receive it, or if one of our products does not perform to your satisfaction, please call Eldorado Headquarters and inform us of your problem. Eldorado will work with you to provide a repair, replacement or refund.

# PRODUCT DESCRIPTION

The SQUARE Climbing Panel is designed for the recreational climbing industry as an indoors-only, self-installable climbing wall product that can be mounted on any appropriate support structure. The SQUARE Climbing Panel allows maximum placement versatility and configuration on a wide range of wall structures. Other features include 2 handhold attachment points per square foot, a sleek planar profile, robust and impact resistant material for durability, and a textured, anti-rotation surface to prevent handholds from spinning.

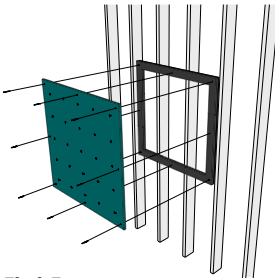
## PRODUCT SPECIFICATIONS

### SQUARE PANEL

MODEL	PNL-W-SL
DIMENSIONS	3'-6" x 3'-6"
NET WEIGHT	24 lbs
SQUARE FOOTAGE	12.25 FT <sup>2</sup>
T-NUTS	25
T-NUT THREAD SIZE	3/8"-16
MAX LOAD CAPACITY	270 lbs

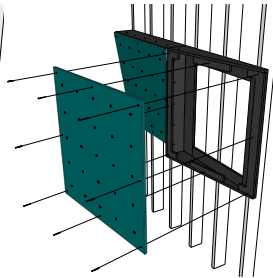
### PRE-FABRICATED MOUNTING OPTIONS

Model	Depth	Weight	T-NUTS
Flat Frame	1.5"	8.8 lbs	0
Wedge Frame	8.5"	25.2 lbs	7
Box Frame	8.5"	26lbs	20



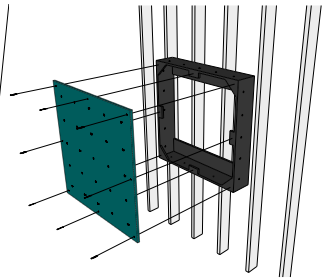
#### Flat Frame

Versatile mounting frame designed to allow SQUARE panels to be mounted anywhere on appropriate structure.



#### Wedge Frame

Similar to the Flat Frame in versatility, the Wedge Frame allows the SQUARE Panel to mounted at an angle (~9.5°)



#### Box Frame

Versatile mounting frame designed to bump-out SQUARE panel 8.5" to meet tall edge of Wedge Frame.

# OPERATING INSTRUCTIONS

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Users of the SQUARE Climbing Panel are solely responsible for the safety and supervision of any person installing or using the product. This includes learning, practicing, and conveying to participants proper climbing techniques including falling. Ensure the climbing area is free and clear from all obstructions including but not limited to: furniture, protrusions, structures or other objects, and other climbers. Users must inform participants of all necessary precautions and dangers and must educate all participants in the proper use of the SQUARE Climbing Panel as well as all third-party equipment such as modular handholds and fall attenuation padding.

Owners and users are to adhere to the following operating requirements:

- Climbers cannot exceed 270 lbs.
- Adult supervision is required by all users under 6 yrs.
- Proper fall technique is required.
- One (1) user at a time.
- Do not walk close to or behind a climber.
- Do not jump or swing from the panels.
- Do not attach any item to the panel (including volumes) other than bolt-on modular handholds or approved Eldorado equipment.
- Do not use the equipment in a manner other than intended.



## **NEVER USE THE SQUARE PANEL AS AN ANCHOR**

Do not use any part of the SQUARE Climbing Panel as an anchor component, including the T-Nuts. The components are not rated to be used as a personal anchor, belay anchor, lead bolt, etc.



## **ALWAYS USE APPROPRIATE FALL ATTENUATION SURFACE DURING USE**





# OPERATING INSTRUCTIONS

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The SQUARE Climbing Panel and mounting option are required to be mounted with specific fasteners depending on the type of wall structure to which it is attached. Strictly adhere to the following procedures when installing the SQUARE Climbing Panel:

- When attaching to stud walls (metal or wood), fasten the ledgers or mounting frame to studs with the specified structural screw at all points where the ledger or frame crosses a stud. Refer to the fastener schedule on page 12 of this document for proper attachment details.
- When attaching to CMU or concrete walls, refer to the fastener schedule on page 12 of this document for proper attachment details.
- All fasteners used to attach ledgers or Flat Frames must be set flush to or slightly recessed below the front face of the ledger or frame to ensure the SQUARE Climbing Panel rests flush against ledger or frame.
- It is recommended that two people perform the installation – one person to hold the ledger/frame or panel while the other fastens it.
- Never use any component of the SQUARE Climbing Panel as an anchor or belay point.
- Never attach SQUARE Climbing Panels to anything other than a vertical support structure, unless approved otherwise by a third party analysis. Eldorado is not responsible for approving non-vertical support structures.

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## PROPER ATTACHMENT REQUIRED



Always refer to the fastener schedule on page 12 of this document for proper attachment for your wall type Brick is NOT an acceptable structure to attach to.



## NEVER USE THE SQUARE PANEL AS AN ANCHOR

Do not use any part of the SQUARE Climbing Panel as an anchor component, including the T-Nuts. The components are not rated to be used as a personal anchor, belay anchor, lead bolt, etc.

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# MAINTENANCE INSTRUCTIONS

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The SQUARE Climbing Panel and mounting ledgers (not included) must be inspected and maintained every 30 days for proper attachment, secure panel attachment, and handhold bolt torque. This monthly inspection must be completed with the SQUARE Climbing Panel and ledger secured in place to the structure. Owners or users with installations that receive heavy use may need to perform inspections more frequently.

Every 30 days:

- Clean any dust, dirt, or contamination off of the SQUARE Climbing Panel and fasteners with a clean damp cloth.
- Visually inspect for separation between the ledger and the wall.
- Visually inspect for separation between the SQUARE Climbing Panel and the mounting ledger.
- Visually inspect for splintering, delamination, or deterioration to the edge of the SQUARE Climbing Panel.
- Tighten all modular handhold SHCS (bolts) to 12-13 ft lbs torque.



## **DO NOT USE SOLVENTS OR ABRASIVES**

Clean with a cloth only. Do not use any cleaners, solvents, or abrasives on any part of the SQUARE Climbing Panel or associated equipment.

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# PREPARATION FOR INSTALLATION

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## **SELECTING A SUPPORT STRUCTURE**

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The mounting option for your SQUARE Climbing Panel must attach to a vertical structure such as a metal or wood stud, concrete, or CMU wall. When selecting a location to install the SQUARE Climbing Panel, always ensure:

- You have the specified fasteners for your particular supporting structure.
- The support structure is of sound construction and without any defects. Eldorado is not responsible for verifying the structure.
- The climbing area is free and clear from all obstructions including, but not limited to: furniture, protrusions, structures or other objects.

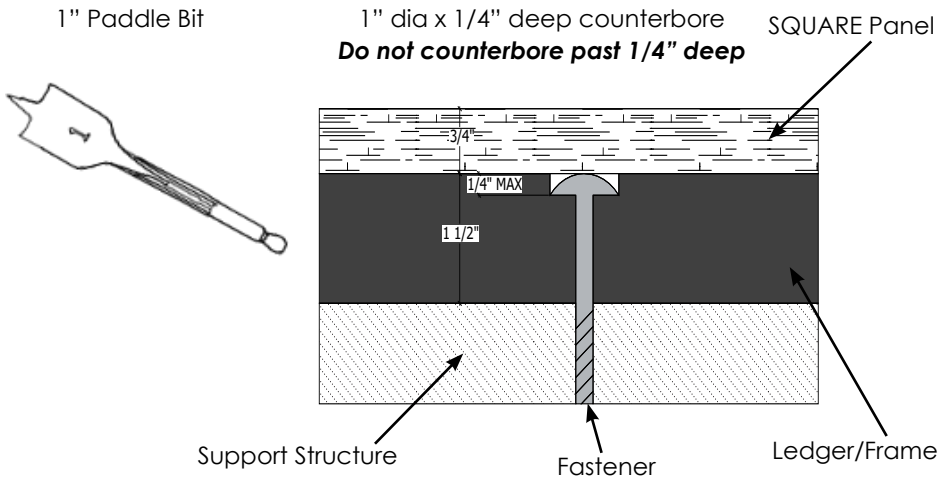
# SELECTING FASTENERS

**OWNER MUST PURCHASE SPECIFIED STRUCTURAL SCREWS FOR THE CORRESPONDING WALL TYPE AND FOLLOW ALL INSTRUCTIONS PROVIDED BY THE MANUFACTURER.**

SEE CHART ON PAGE 12 FOR THE FASTENER SPECIFIED FOR YOUR WALL TYPE.

BRICK IS NOT AN ACCEPTABLE STRUCTURE TO ATTACH TO.

**If Flat Head fasteners are not available counterboring of the ledger or frame may be required to ensure flush fit:**



## WALL TYPE AND FASTENER SCHEDULE

WALL STRUCTURE TYPE	SPECIFIED FASTENER	FLAT WEDGE AND BOX FRAME DIRECT TO WALL STRUCTURE FASTENER QUANTITY PER PANEL	2X WOOD LEDGER TO WALL STRUCTURE CONNECTION	STRUCTURAL REQUIREMENT NOTES
SOLID CONCRETE AND CMU (FULL GROUDED)	1/4" Tapcon Hex Head with 1-1/2" MIN embedment into wall	(4) MIN	1/4" Tapcon Hex Head @ 24" MAX spacing with 1-1/2" MIN embedment into wall	f'c = 2,000 psi min Min CMU edge distance = 4" Anchors shall NOT be installed in CMU mortar joints nor cracked concrete Min Concrete edge distance = 3" Recommended MIN CMU wall thickness = 8" Recommended MIN Concrete wall thickness = 6"
CMU (HOLLOW - UNGROUDED)	1/4" HiHi Kwik-Con II Hex Head with 1" MIN embedment into CMU face shell	(4) MIN	1/4" HiHi Kwik-Con II Hex Head @ 16" MAX spacing with 1" min embedment into CMU face shell	Lightweight, medium-weight or normal-weight ASTM C90 CMU Type Min CMU edge distance = 4" Anchors shall NOT be installed in CMU mortar joints Recommended MIN CMU wall thickness = 8"
WOOD STUDS	# 14 (0.242" dia.) x 4" wood screw at each stud	(4) MIN	Simpson Strong-Tite 1/4" x 4-1/2" long SDS Screws @ 24" MAX spacing	Screw bending yield strength = 70,000 psi (min) Min screw head diameter = 0.50 in Fasteners must be installed centered on narrow (1-1/2") face of stud Recommended MAX 2x6 framed wall height = 10ft Recommended MAX 2x4 framed wall height = 8ft
METAL STUDS	# 12-14 (0.216" dia.) Self Drilling Self Tapping (SDST) screw at each stud	(4) MIN	# 12-14 Self Drilling Self Tapping (SDST) (0.216" dia.) @ 16" MAX spacing	Screw bending yield strength = 92,000 psi (min) Min screw head diameter = 0.398 in Min thickness of steel stud = 18 gage (0.048") Min width of steel stud flange = 1-5/8" Fasteners must be installed centered on width of light gage steel stud flange Recommended 8" deep stud framed @ 16", MAX wall height = 18ft Recommended 6" deep stud framed @ 16", MAX wall height = 14ft Recommended 4" deep stud framed @ 16", MAX wall height = 12ft

# TOOLS & MATERIALS

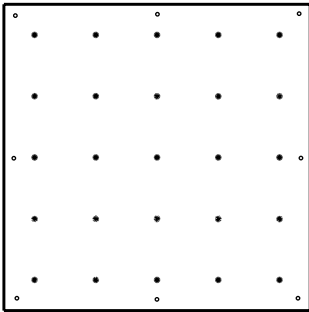
## TOOLS AND MATERIALS NEEDED FOR INSTALLATION

*-Provided by Owner*

- Pencil
- Stud Finder
- Tape Measure
- Drill / Impact Driver
- Bit for Structural Screws
- Star-Drive Bit
- Step Ladder
- Level
- 5/16" Allen Key
- Rapid Clamp (Optional)
- 1" Paddle Bit (if Flat Head fasteners are not available)
- Specified Structural Fasteners

## SQUARE PANEL AND MOUNTING HARDWARE

*-Provided by Eldorado*

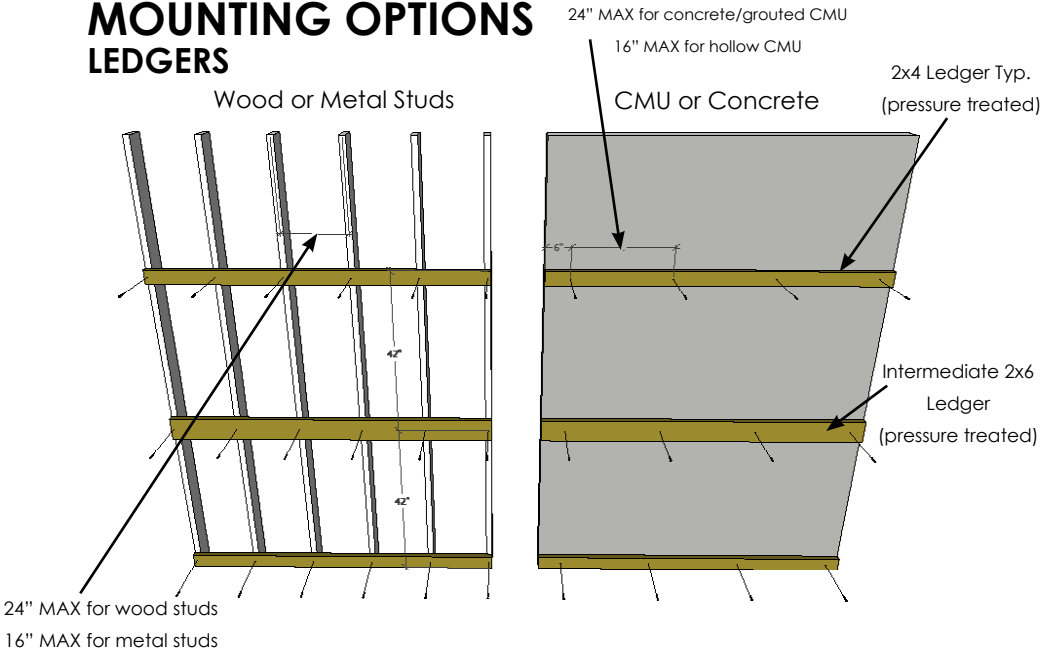


SQUARE Climbing  
Panel  
x1



Panel Connector Screw (x8)  
(TO ATTACH CLIMBING  
SQUARE TO LEDGER OR  
FRAME)

# MOUNTING OPTIONS LEDGERS



## INSTRUCTIONS FOR ATTACHING LEDGERS

### STEP 1. FIND AND MARK WALL STUDS (FOR WOOD OR METAL STUDS)

- Determine the area on your wall in which you want to mount your Climbing Panels.
- Using a stud finder, locate and mark all studs in the designated climbing area. Ensure to mark the **center** of each stud.

### STEP 2. MOUNT THE LEDGERS

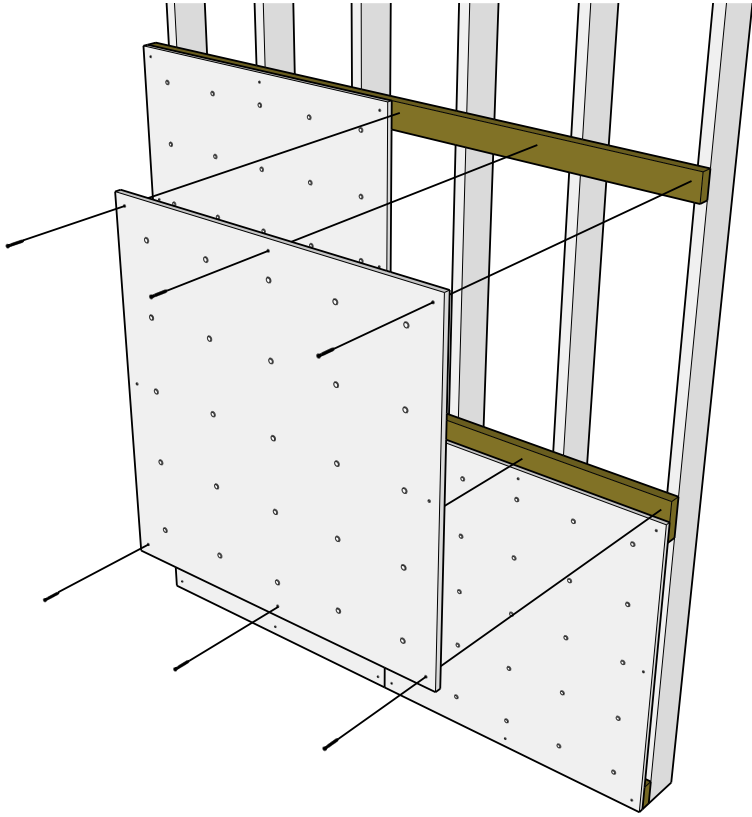
- Determine the starting height of the designated climbing area, and determine how many panels high the area will go.
- Cut your ledgers to the desired width of your climbing area. It is recommended to use 2x4 lumber for the top and bottom ledgers, and 2x6 for any intermediate ledger. Two SQUARES can share the same 2x6 ledger.
- Starting with your bottom 2x4 ledger at the designated starting height of the climbing area, attach the ledger to your wall screwing into the **center** of each stud it crosses. Use specified fasteners. Use a level to ensure the ledger is level.
- SQUARES are 42"x42". If your climbing area is two or more SQUARES high, measure up 42" from the *bottom* of your starting 2x4 ledger and attach your 2x6 ledger centered on the 42" measurement (see diagram above). Screw the second ledger to your wall using the same specified method.
- Repeat as necessary for the height of your wall. When the top height of your climbing area is reached, use a 2x4 as the final top ledger, spacing it so that the top of the final ledger is 42" above the center of the last 2x6 ledger (or 42" from bottom of 2x4 ledger if area is only one SQUARE high).
- When attaching to CMU or Concrete walls, refer to the fastener schedule on page 12 for specified fasteners and required spacing depending on your wall type. It is recommended to use pressure treated lumber for ledgers when attaching to Concrete or CMU.



### CENTER OF STUD REQUIRED

All ledgers and frames are required to attach to two studs minimum with two specified structural screws into the center of each stud.

## ATTACHING SQUARE PANELS TO LEDGERS

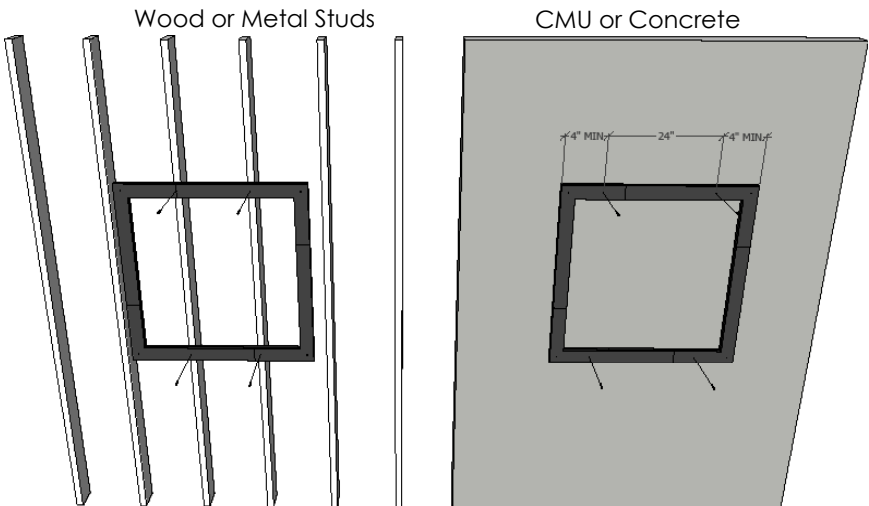


### INSTRUCTIONS FOR ATTACHING SQUARE PANEL TO LEDGERS

- Starting at the bottom or your climbing area, bring a SQUARE Panel to the ledgers.
- Using the panel connector screws provided by Eldorado, screw in the SQUARE Panel to the ledgers at the top and bottom of the SQUARE Panel.
- Ensure the SQUARE Panel is level and flush with the bottom of the starting ledger.
- Screw the SQUARE Panel into the ledger using the 1/4" pilot holes on the perimeter of the SQUARE Panel.
- Note: with the ledger attachment method, you will only use 6 of the pilot holes present on the SQUARE - 3 on top and 3 on bottom. The middle pilot holes on the left and right sides of the SQUARE Panel can be omitted.
- Ensure the Panel Connector Screws are fully tightened so that the pan head of the screw is flush with surface of the SQUARE.
- Repeat as necessary for every SQUARE, ensuring to butt the SQUARE Panel's edge to edge so there is no gap in between panels.

# MOUNTING OPTIONS

## FLAT FRAME



### INSTRUCTIONS FOR ATTACHING FLAT FRAME

#### STEP 1. FIND AND MARK WALL STUDS (FOR WOOD OR METAL STUDS)

- Determine the area on your wall in which you want to mount your Climbing Panels.
- Using a stud finder, locate and mark all studs in the designated climbing area. Ensure to mark the **center** of each stud.

#### STEP 2. MOUNT THE FLAT FRAME

- Flat Frames allow the SQUARE Climbing Panel to be mounted anywhere on your wall. First determine your starting panel in your designated climbing area.
- Bring a Flat Frame up to the wall at your starting position and ensure that the top and bottom edges of the Frame cross at least two studs. Level the Flat Frame.
- Centering your screw (up and down) on the Flat Frame, start by screwing the top of the Frame into the **center** of each stud you have marked. Use specified fasteners.
- Avoid screwing the Frame to the wall at the pilot holes on the frame. This is where the SQUARE Panel will be screwed into the frame (see diagram above).
- Finish attaching the Flat Frame by screwing the bottom of the Flat Frame into the same studs as above. Ensure you are screwing into the **center** of the studs.
- Repeat the process for each Flat Frame, butting each frame up against each other and ensuring the adjacent edges are flush.
- For CMU and concrete walls, use the specified fasteners called out in this document. Use a minimum of four (4) fasteners - two (2) on the top and two (2) on the bottom. Space fasteners 24" on-center.

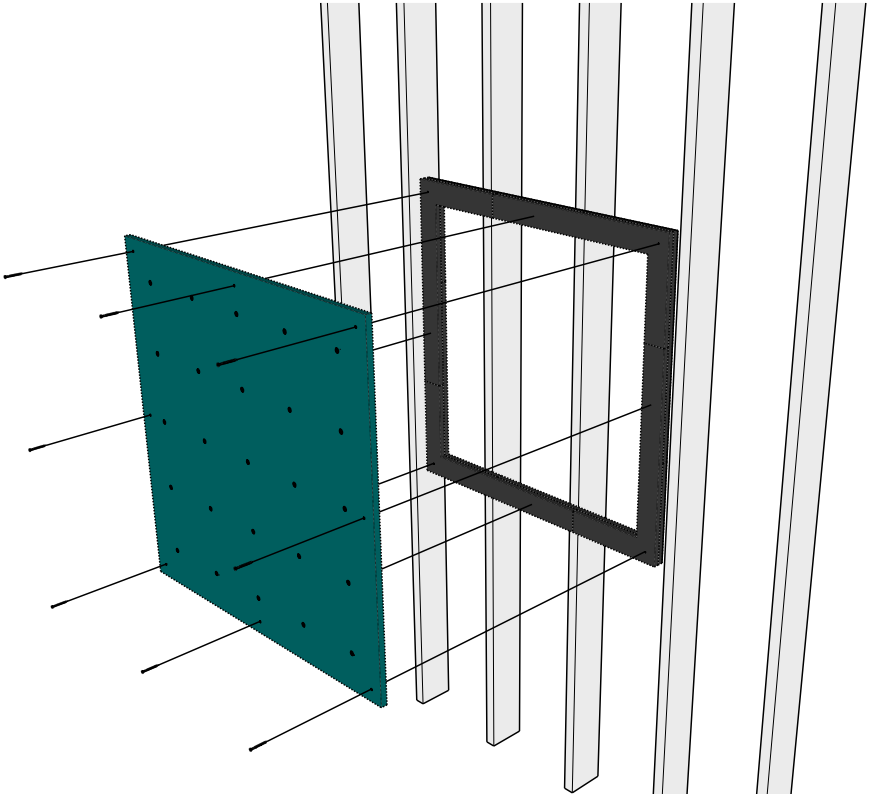


#### CENTER OF STUD REQUIRED

All ledgers and frames are required to attach to two studs minimum with two specified structural screws into the center of each stud.



## ATTACHING SQUARE PANELS TO FLAT FRAME

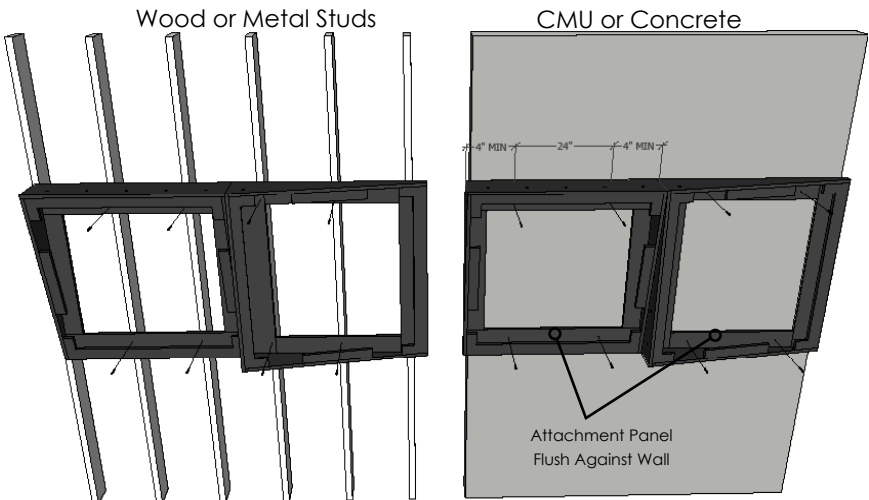


### INSTRUCTIONS FOR ATTACHING SQUARE PANEL TO FLAT FRAME

- Bring a SQUARE Panel up to a Flat Frame. Center the SQUARE onto the Frame in all directions.
- Starting with the top-middle pilot hole on the SQUARE Panel, use a provided Panel Connector Screw and screw into the Flat Frame.
- Ensuring the SQUARE Panel is still centered on the Frame, proceed to screw in the remaining seven (7) Panel Connector Screws into the Frame. Use the pilot holes present on the SQUARE Panel.
- Ensure all Panel Connector Screws are sufficiently tight and that all pan-heads are flush with the surface of the panel.
- Repeat the process for each remaining SQUARE Panel.

# MOUNTING OPTIONS

## WEDGE FRAME



## INSTRUCTIONS FOR ATTACHING WEDGE FRAME

### STEP 1. FIND AND MARK WALL STUDS (FOR WOOD OR METAL STUDS)

- Determine the area on your wall in which you want to mount your Climbing Panels.
- Using a stud finder, locate and mark all studs in the designated climbing area. Ensure to mark the **center** of each stud.

### STEP 2. MOUNT THE WEDGE FRAME

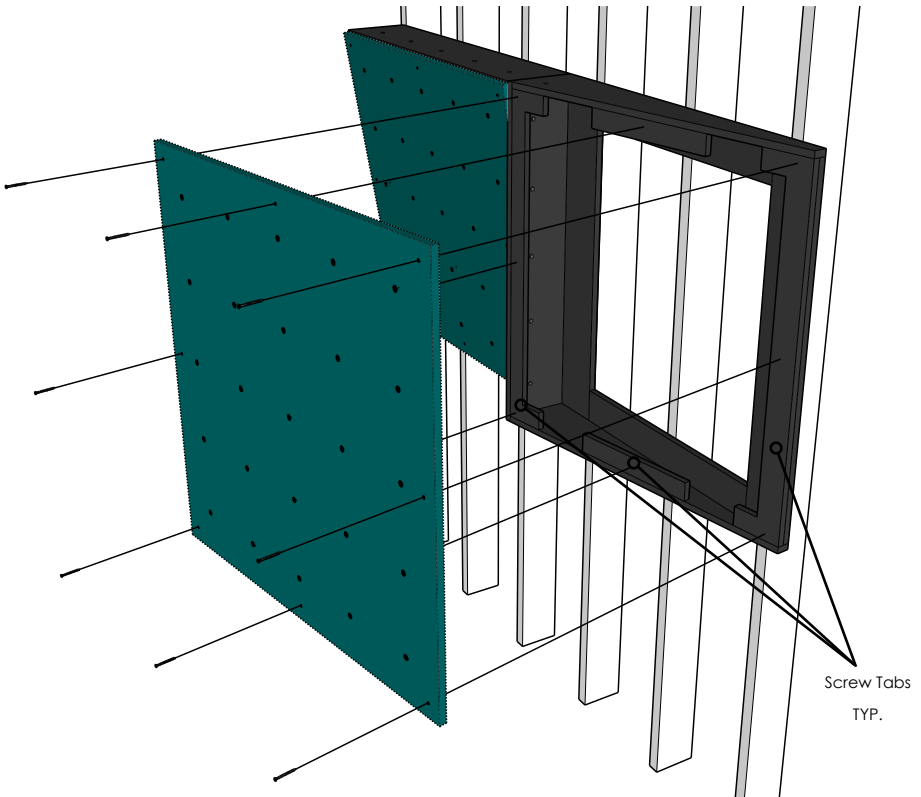
- Wedge Frames allow the SQUARE Climbing Panel to be mounted anywhere on your wall. Wedge Frames can also be mounted in four possible orientations - sloping up, down, left, or right (diagram above shows two possible orientations of Wedge Frame).
- Bring a Wedge Frame up to the wall at your desired position and ensure that the top and bottom edges of the Frame cross at least two studs. Level the Wedge Frame.
- Centering your screw (up and down) on the Attachment Panel in the back of Wedge Frame, start by screwing the top of the Frame into the **center** of each stud you have marked. Use specified fasteners.
- Finish attaching the Wedge Frame by screwing the bottom of the Wedge Frame into the same studs as above, centering your screws (up-down) on the Attachment Panels in the rear of the Frame. Ensure you are screwing into the **center** of the studs.
- Repeat the process for each Wedge Frame, butting each frame up against each other and ensuring the adjacent edges are flush.
- For CMU and concrete walls, use the specified fasteners called out in this document. Use a minimum of four (4) fasteners - two (2) on the top and two (2) on the bottom. Space fasteners 24" on-center.



### CENTER OF STUD REQUIRED

All ledgers and frames are required to attach to two studs minimum with two specified structural screws into the center of each stud.

## ATTACHING SQUARE PANELS TO WEDGE FRAME

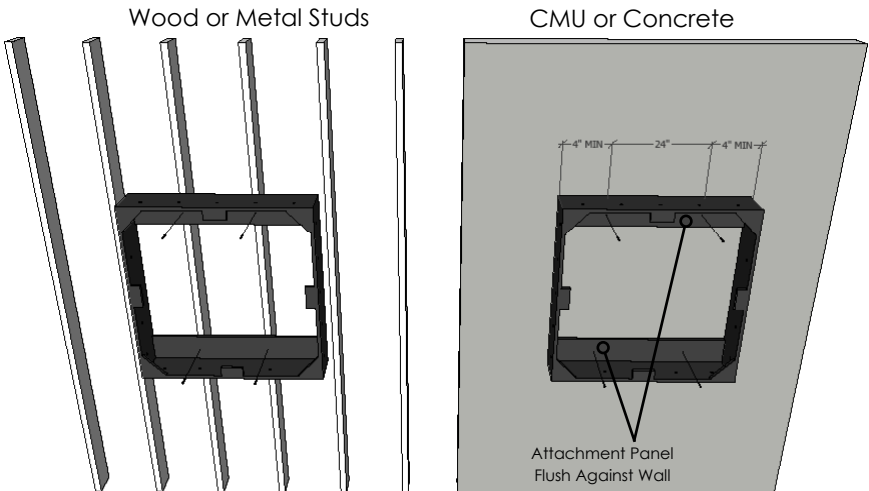


### INSTRUCTIONS FOR ATTACHING SQUARE PANEL TO WEDGE FRAME

- Bring a SQUARE Panel up to a Wedge Frame. Center the SQUARE onto the Frame in all directions (note: there will be a  $\sim 1/4$ " gap on either side between the SQUARE and the surface of the frame in the long direction).
- Starting with the top-middle pilot hole on the SQUARE Panel, use a provided Panel Connector Screw and screw into the Wedge Frame at the Screw Tab (see diagram above).
- Ensuring the SQUARE Panel is still centered on the Frame, proceed to screw in the remaining seven (7) Panel Connector Screws into the Frame's Screw Tabs. Use the pilot holes present on the SQUARE Panel.
- Ensure all Panel Connector Screws are sufficiently tight and that all pan-heads are flush with the surface of the panel.

# MOUNTING OPTIONS

## BOX FRAME



## INSTRUCTIONS FOR ATTACHING BOX FRAME

### STEP 1. FIND AND MARK WALL STUDS (FOR WOOD OR METAL STUDS)

- Determine the area on your wall in which you want to mount your Climbing Panels.
- Using a stud finder, locate and mark all studs in the designated climbing area. Ensure to mark the **center** of each stud.

### STEP 2. MOUNT THE BOX FRAME

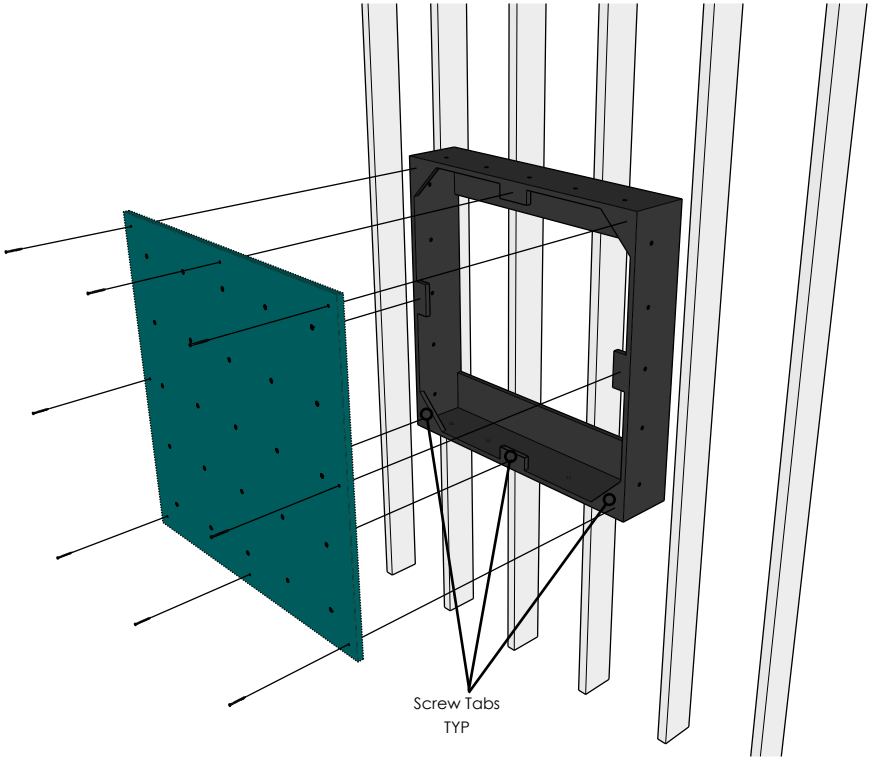
- Box Frames allow the SQUARE Climbing Panel to be mounted anywhere on your wall. **Box Frames must be attached in the orientation shown above.**
- Bring a Box Frame up to the wall at your desired position and ensure that the top and bottom edges of the Frame cross at least two studs. Level the Box Frame.
- Centering your screw (up and down) on the Attachment Panel in the back of Box Frame, start by screwing the top of the Frame into the **center** of each stud you have marked. Use specified fasteners.
- Finish attaching the Box Frame by screwing the bottom of the Box Frame into the same studs as above, centering your screws (up-down) on the Attachment Panels in the rear of the Frame. Ensure you are screwing into the **center** of the studs.
- Repeat the process for each Box Frame, butting each frame up against each other and ensuring the adjacent edges are flush.
- For CMU and concrete walls, use the specified fasteners called out in this document. Use a minimum of four (4) fasteners - two (2) on the top and two (2) on the bottom. Space fasteners 24" on-center.



### CENTER OF STUD REQUIRED

All ledgers and frames are required to attach to two studs minimum with two specified structural screws into the center of each stud.

## ATTACHING SQUARE PANELS TO BOX FRAME



### INSTRUCTIONS FOR ATTACHING SQUARE PANEL TO BOX FRAME

- Bring a SQUARE Panel up to a Box Frame. Center the SQUARE onto the Frame in all directions.
- Starting with the top-middle pilot hole on the SQUARE Panel, use a provided Panel Connector Screw and screw into the Box Frame at the Screw Tab (see diagram above).
- Ensuring the SQUARE Panel is still centered on the Frame, proceed to screw in the remaining seven (7) Panel Connector Screws into the Frame's Screw Tabs. Use the pilot holes present on the SQUARE Panel.
- Ensure all Panel Connector Screws are sufficiently tight and that all pan-heads are flush with the surface of the panel.

# HANDHOLD ATTACHMENT

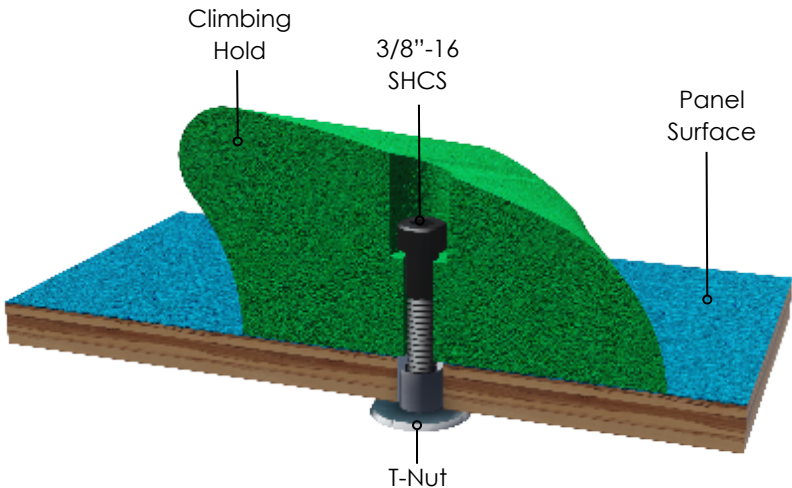
## ATTACHING MODULAR HANDHOLDS

The SQUARE Climbing Panel is designed for modular handhold attachment. The SQUARE Panel includes 2 modular handhold attachment points per square foot, a sleek planar profile to promote use of the attached handhold, and a robust and impact resistant material for durability.

### Modular Handhold Basics

- Made of durable, lightweight polyurethane
- Comfortably-grippable texture on the surface
- Sometimes referred to as climbing handles, climbing holds, climbing grips
- Fastened into T-Nut with 3/8"-16 Standard Socket Head Cap Screw (SHCS)
- Requires 5/16" allen wrench (included)
- Tighten SHCS securely as to prevent handhold from spinning
- 12-13 ft lbs recommended

Shop online at [eldowalls.com](http://eldowalls.com) to browse our selection of Eldo Holds. Contact the Eldorado Sales Team to confirm which sets and colors are currently in stock. Sets and colors that are not in stock may take up to 30 days to deliver. Choose from standard or custom colors.



**NOTE: SOME MODERN CLIMBING HOLDS ARE LARGE AND CAN PROTRUDE FAR OFF THE WALL. MAX PROJECTION OF THE CLIMBING WALL, INCLUDING HANDHOLDS, SHALL NOT EXCEED 19" OFF THE FACE OF ATTACHMENT WALL.**

# FREQUENTLY ASKED QUESTIONS

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## SQUARE<sup>™</sup> CLIMBING PANEL FAQs:

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*Does the ledger/frame require a minimum number of structural screws?*

**Yes. The ledger/frame needs to be attached to a minimum of two studs with FOUR (2 on top and 2 on bottom) specified structural screws. Using more than the minimum of 4 screws is encouraged.**

*Is there a fall space requirement for the SQUARE Panels?*

**Eldorado Climbing Walls recommends 6' (six foot) minimum perimeter around the installed panels for maximum falling or dismounting clearance.**

*Do the SQUARE Panels require safety flooring?*

**No, but using padded flooring is recommended while using the SQUARE Panel. Any protective flooring should comply with the safety standard ASTM F1292 Standard Specification of Impact Attenuation of Surfacing Materials within the Use Zone of Playground Equipment.**

*My panel/ledger is flexing from the wall I attached them to. Is this a problem?*

**No. If the structural mounting requirements are met (see question 1), minor flexing of the panel is acceptable.**

*What if my studs are not 16" on center?*

**This is not a problem, as long as the ledger or frame can be attached to a minimum of two studs and the stud spacing does not exceed 16" for metal studs or 24" for wood studs. Refer to the fastener schedule on page 12.**

*Does the SQUARE Panel or ledger/frame come with a warranty?*

**Yes. The SQUARE Panel System comes with a 1 Year Limited Warranty for defects in workmanship and materials. If the product is defective, return it to Eldorado within 30 days of receiving. It will be repaired or replaced, at Eldorado's option, without charge.**

*What if my SQUARE Climbing Panel arrives damaged?*

**Document the damage on the shipping company's Bill of Lading (BOL) and note for yourself. Photograph damage and send photos to Eldorado Climbing Walls. Eldorado will work with you to replace the damaged panel.**

# PANEL COLOR OPTIONS

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## MANUFACTURER'S DETAILS

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### ADDRESS:

1699 Cherry St Unit B  
Louisville, CO 80027  
USA

### CONTACT DETAILS:

+1-303-447-0512  
[www.eldowalls.com](http://www.eldowalls.com)  
[info@eldowalls.com](mailto:info@eldowalls.com)



### CARE FOR THE ENVIRONMENT

Take care to dispose of all materials in a responsible manner. Recycle all packaging materials.

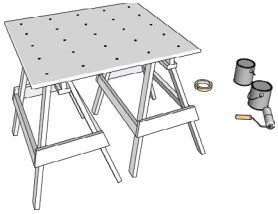


# SO, YOU WANT TO PAINT YOUR OWN PANEL?

Eldorado Climbing offers wood panels finished in an array of standard colors. If you don't see a color you like and would like to paint your own color, please purchase a Porcelain (white) panel and consult the information below.

Note: We only recommend painting our wood panels. These instructions do not apply to our fiberglass panel line.

## WHAT YOU'LL NEED



- Paint, see specs. below
- Applicator
  - Roller cover - 9" length, 3/8" nap
  - Paint roller frame - 9" length
- Roller Tray
- Extension pole for roller (optional)
- Painters tape (optional)
- Foam ear plugs (optional)
- Saw Horses (optional)

## PAINT SPECS

We use two products from Sherwin Williams to paint and seal our panels: Armorseal Treadplex for color and a thin clear coat of Armorseal 1K. Although optional, the clear Armorseal 1K provides additional scuff protection and UV resistance. We recommend using the same type of paint to paint your panels.

Our panels come primed with a textured coat of Armorseal Treadplex and it is important to note that with each additional layer of paint, the factory applied texture will begin to diminish.

## PROTECT YOUR T-NUTS

Our climbing panels come pre-installed with T-NUTS on the back surface. When painting the front of the panel, the paint can drip into the threads of the T-NUTS which can cause issues when attaching handholds. To prevent this from happening we suggest 2 options:

1. The T-NUTS can be removed from the back side of the panel (hand drill with Phillips head bit) and re-installed after painting.
2. If you don't want to remove them, the T-NUTS can also be plugged from the front of the panel. Cheap earplugs are a good option for this.

## RECOMMENDED PROCESS

We recommend using a 9" paint roller to apply your paint. It is best to elevate your panel off the ground for these steps.

1. Paint panel with your desired color. Cover the whole front surface and side edges with an even coat. Allow to dry fully and only add additional layers if more color saturation is desired.
2. Once the desired color has dried for 24hrs minimum, apply a thin coat of the Armorseal 1K clear coat. Note: If the 1K is applied too thick, it can cure with an undesired alligator skin pattern. Allow to dry for 24hrs minimum
3. Re-install T-NUTS or remove the plugs

## RECOMMENDED PROCESS

Test your paint before committing! Some paints behave differently than others. It is best to test your paint layers on a small section of the panel edge, ensuring to dry fully.

- Get creative! The panel is your canvas: you can paint a picture with a brush, or you can use masking tape to get multiple colors on one panel.

- We recommend using painter's tape for any masking and smearing clear caulking at the tape line to ensure a laser straight paint line. Here is a great reference video for this technique

<https://www.youtube.com/watch?v=sWkAUlevvHA>

Happy Painting!



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