

OWNER'S MANUAL

LEDGEWALL.♦

TEXTURED CLIMBING PANELS



BREWER  **FITNESS**

Brewer Fitness. • 87 York Ave. • Randolph, MA 02368 • USA • 781-961-5200 • www.brewerfitness.com

LedgeWall™ CLIMBING PANELS

DESCRIPTION:

LedgeWall climbing panels are carefully designed pre-finished panels for climbing surfaces. A variety of configurations is available (see below) to meet different needs. They are suitable for traversing walls and bouldering areas with sideways climbing up to ten-foot height with no necessity for ropes or harnesses. They are also suitable for belayed top-roped climbing (over 10 feet) with ropes and harnesses when built with a belay anchor at the top of the wall.

The panels are engraved with an attractive pattern that suggests a rough rock surface and finished with two coats of reinforced enamel paint in a dark gray color (custom colors available). Each panel has fifty-two threaded attachment points for climbing holds that are configured to provide maximum adjustability and avoid interference with standard 16" center framing. The panels are made of highest quality materials to provide high strength, long life and ease of installation.

MATERIALS:

PANELS: Premium waterproof MDO plywood with an incut sculpted surface, drilled, and hand finished. Edges are beveled.

INSERTS: Fifty-two high quality tee-nuts, 3/8 x 16 (industry standard for removable handholds), heavy duty for repeated use.

FINISH: Coated with high quality reinforced enamel paint. All painted surfaces are double coated. Exterior applications will receive a coating on the back as well as the front.

CONFIGURATIONS:

STANDARD PANELS: Separate panels for application to existing building framing or customer designed framing.

PLUS PANELS: Pre framed panels for direct mounting to CMU, cement or other "hard" surfaced walls.

MODULES: Modular pre-framed units for simple bolt-together construction for creating cost effective bouldering areas.

Standard Panels

LedgeWall panels are designed for a variety of uses. They can be mounted directly on existing framing, used on custom framing, and can be used inside or outside with full coating.

The instructions below are for low element and traversing walls of less than 10 feet in height.

They may be used for top roped walls, however they cannot withstand lead climbing or belay points directly attached without specific engineered reinforcement. A qualified engineer must review all belay system designs.

Construction Notes

LedgeWall Panels are designed for mounting on 2x4, 2x6 or heavier gauge metal framing at standard 16" centers. They are normally mounted vertically however they can be mounted horizontally as well. For certain applications where a 2-foot line is marked into a panel, this must be oriented towards the floor.

If using an existing wall, verify it is securely tied top and bottom to the floor and ceiling, or to a foundation wall behind. Any custom framing must be securely mounted to the back-up wall with appropriate fasteners and brackets. All panels are mounted to any framing with construction screws on 6" centers. Overkill and properly sized/types of screws are key. Construction adhesive may also be used.

Mounting to existing framing:

- Check the build of the existing wall – make sure it is tightly framed and securely attached at the top and bottom. Do not use lightly framed “divisor” walls that are not fully framed into the building.
- It is best to space up the panels off the floor on a 2x3 or 2x4. This allows compensation for uneven floors and space for the mats to tuck underneath.
- Metal framing will work. but ascertain the studs are of commercial and heavier gauges.
- We recommend # 8 x 2.5" screws (drill point, fine thread if metal). Placed every 6", over 4 studs this means @ 60-64 screws per panel. Black iron will blend with charcoal panel color and almost disappear.
- For extra strength, consider adding extra blocking between frames. Consider also tying framing back to a more solid wall behind if available or using a backing piece of plywood on the opposite side of the framing to create a box (do not put plywood directly underneath the panels.)
- You can mount the panels directly over existing drywall – this will not impede the hold bolts, as they will punch right through if protruding.

Mounting on Custom Framing:

If possible, it is better to present different and interesting challenges to the climbers. Overhangs, corners, and roofs can be constructed using the framing shown below. The framing must be carefully constructed to fit the panels with attention to the corners where panels meet and accommodating the thickness of panels where they overlap. To make full use of LedgeWall panels it is best to design in 4-ft. increments, and this generally insures good "climbable-sized" areas as well. When constructing overhanging sections, note that where different-angled sections of wall meet up there will be odd-shaped areas that have to be filled. Plan carefully to backup all joints.

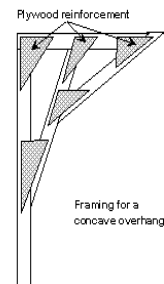
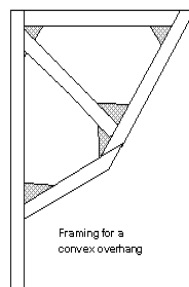
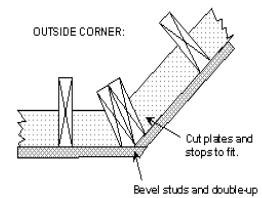
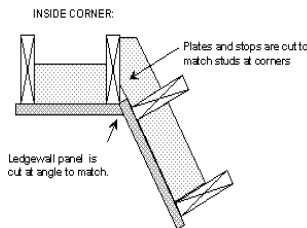
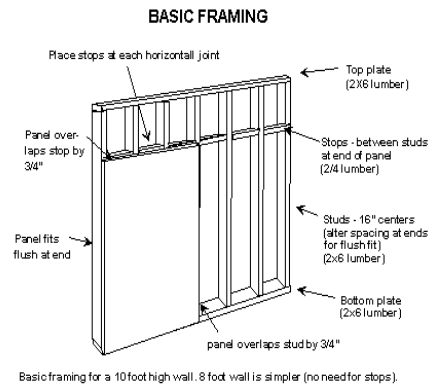
1. Please be aware that the angle (slab, vertical or overhanging) of the wall will significantly affect the forces on the panels. Overhanging designs will generate considerably more stress on the panels and their framing.
2. Framing to be 2"x 4" if attached to an existing wall. Use 2"x 6" if free standing.
3. Frame for 16" on center.

Remember to adjust end frames for 4' x 8' panels.

4. Angle brackets can be placed every two feet.

5. Blocking to be placed every 4 feet, one at bottom, one in the middle, and one to catch top edge. We recommend double blocking where two separate sheets join doubling and always in the case of overhanging angles.

6. Panels are usually attached with drywall screws every 6 inches. Pre-drilling is at the choice of your builder; we recommend it where single blocking is used under an area where two panel edges join.





Panels - General Install Notes LedgeWall™ panels

The LedgeWall panels are a textured MDO ¾" plywood with a charcoal (1/2 black - 1/2 gray) water-based urethane finish. There are materials enclosed for staff: an Owner's Manual and a 5/16" Allen wrench for installing the holds. The following are some notes relating to installation. On the back side are step-by-step instructions

1. The standard panels are 4 x 8 but can be custom cut for a small charge.
2. The edges of the plywood have been lightly beveled but are exposed. You can leave the edges exposed or not as desired.
3. They are usually oriented 4 foot across the bottom and 8 feet high
4. Per request, some panels have a routed line across the width, 24" from the bottom. This is oriented *to the bottom* when installed.
5. The panels should be mounted @ 2.5" off the floor. You can use a 2x3 spacer on edge under the panel when mounting to the wall. This extra height allows for leveling as well as room for the mat to slip underneath offering a better climbing experience.
6. The hold bolts can project slightly out the back of the panel. They can be directly mounted over drywall if needed. However, do not mount standard panels over hard surfaces such as plywood or concrete. (Plus panels are ordered for this use. If you find this situation with standard panels, you will need to frame them out slightly. There are separate instructions for plus panels and concrete walls)
7. Standard panels are typically attached with drywall screws every 6" to the wood or metal framing: they can go over drywall if it is already in place. Metal studs may require backing material behind the studs. We recommend # 8 x 2.5" screws (drill point, fine thread if metal). Placed every 6", over 4 studs this means @ 60-64 screws per panel. Black iron will blend with charcoal color: if needed use black to touch up.
8. Make sure the building wall is securely attached to both floor and ceiling. Blocking in framing is desirable but depends on the structure. Common sense is the best guide.
9. The mat hanger kits have instructions in the bag: there is usually one per panel and they take a few minutes to install. Please follow the instructions as this makes it possible to staff to easily hang and take down the mats between uses.
10. A single mat hangs over each panel. Sometimes extra mats are ordered to create a larger padded area: usually the extra mats get put aside when not in use.
11. Make sure the staff gets the owner's manual and the Allen wrench after you are done. This is very important.

At any time, please feel free to call Brewer anytime with questions or if anything further is needed. We can be reached in Randolph, MA at 781-961-5200 or sales@treadwall.com.

SEE BACK SIDE

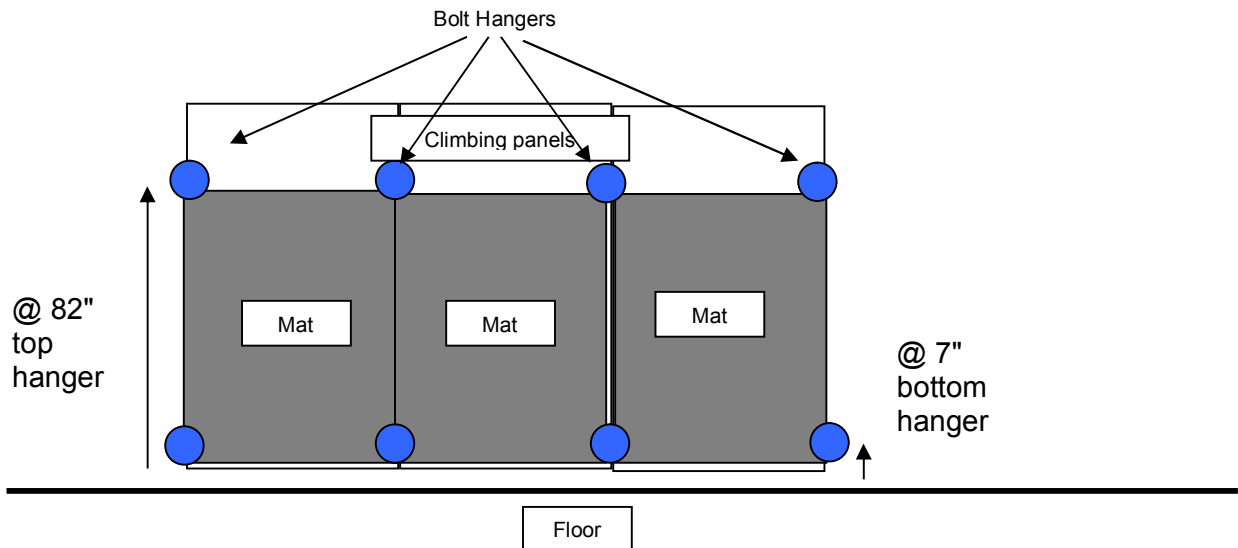
General LedgeWall Work Plan & Mat Notes

- ❑ Carry in materials
- ❑ Find and mark studs in wall area
- ❑ Block and level first panel, making sure 24" line is down, and panel is @ 2 1/2" off the floor (use 2x3 on edge)
- ❑ Attach first panel with @ 6-8 fasteners
- ❑ Repeat with remaining panels
- ❑ Go back and completely fasten panels to framing
- ❑ Mount the mat hardware, @2 per panel
- ❑ Place holds per Owner's manual suggestions: helpful to lay out holds on ground first
- ❑ Clean area if needed
- ❑ Attach clips/screw locks to mat loops as needed, and hang mats against wall to make sure all fits
- ❑ You can order touch paint if needed from Brewer's Ledge
- ❑ Ensure that manual, paperwork and allen wrench are given to staff

Some orders include extra mats to go on the floor at each end of the mat. However for covering the wall (hanging the mats), usually one mat per panel is used. When there are extra mats, just hang one for each panel and put the extra mats aside when not in use.

The kits come with two or four bolt hangers (the bent metal pieces...) per mat depending on packaging and wall design. Occasionally customers space out the panels with gaps between. This requires a complete set of hangers (4) per panel/mat.

It is best if the panels are butted together (typical) to use only one of the bolt hangers between each mat. Two clips and two screw links will easily fit onto a single hanger. No need to put two hangers side by side. This puts less clutter on the wall.



LedgeWall Plus™ Panels:

Overview:

LedgeWall Plus Panels are specifically designed for attachment to cement block, solid concrete or masonry walls. Standard installation uses Tapcon screws and construction adhesive (see the attached sheet for screw specifications etc. The shallow frame on the back provides a space between the panel and the backing wall so that the hold-mounting bolts do not press against the concrete.

Tools:

You should use two drills - one hammer/SDS drill for drilling the masonry and one regular drill for driving the Tapcon screws. Additional tools: Tape measure, a caulking gun, saber saw (if you need to make cutouts), level.

Supplies:

1/4" x 2 3/4" Tapcon anchors, Phillips flat head, 38 per panel.
3/16" x 4-1/2" Tapcon drill bit (usually comes with the anchors)
#2 Phillips head bits to drive the anchors (have several on hand)
Urethane construction adhesive, (11 oz tube for two panels)

Typical installations are under one day for two workers

Placement:

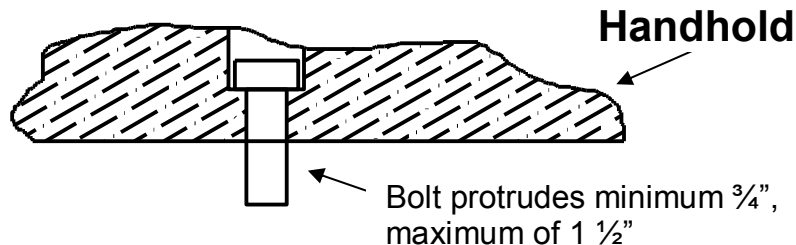
For traversing walls, the panels are often placed side-by-side, making a long uninterrupted wall. Spaces may be left between the panels if there are obstructions such as support columns or utilities. Leaving spaces can make the wall longer and yield more interest and challenge as well. For little kids, keep the panels within 24" of each other.

Steps:

- 1) Lean the panels against the wall to set the desired locations. Watch for obstructions such as trim, outlets, etc and either cut around or avoid. Check level. When correct, mark the positions of the panels if needed.
- 2) Usually the panels are mounted slightly off of the floor. Cut pieces of 2x3's or 2x4's to act as blocks to hold the panels at the right height while attaching them.
- 3) Apply adhesive to the framing on the back of the first panel.
- 4) Put the panel on the blocks and press it into place against the wall. One person holds the panel against the wall while the other drills the holes for a couple of Tapcon screws top and bottom (using pre-drilled locations) and drives them into place.
- 5) With a couple of screws holding the panel, you can remove the supports.
- 6) Put up ALL the panels temporarily before fastening the remainder of the Tapcons. This allows you to make sure entire wall is good.
- 7) Go back and finish installing all Tapcons.

Mounting hand and footholds:

IMPORTANT! When mounting holds onto LedgeWall Plus panels, care must be taken so that the hold-mounting bolts do not push against the support wall. *The bolts must protrude a min. 3/4" – max. 1 1/2" past the base of the hold.*



Tapcon® Use

LedgeWall panels and Modules are often fastened to CMU block and concrete walls. The Plus panels are pre-drilled for Tapcons screws just for this purpose. The following sheet describes using Tapcons both with LedgeWall Plus panels that come provided with 3/4" thick framing, or using Tapcons with angle brackets and LedgeWall Modules.

Urethane builder's adhesive (1/2 tube per panel) is required to assist in mounting the framed panels to the wall. A bead of adhesive should be placed along all contacting surfaces. This is necessary to prevent loosening-up of Tapcons over time.

For using with LedgeWall Plus panels* (framed with 3/4' stock), CMU block walls:

- Tapcon: Phillips Head, Flush, 1/4" x 2 3/4"
- Drill Bit: 3/16" x 4 1/2"
- Number: 19 per 4 x 4 panel
38 per 4 x 8 panel

* The LedgeWall Plus panels come pre-drilled with beveled holes to locate each of the Tapcons.

Tips for using Tapcons:

- For exterior use, purchase Stainless Steel Tapcons.
- Use the proper Tapcon masonry bit. Tapcons come with a bit if ordering 100 bolts.
- **DON'T FORCE** the bit into the CMU block. Too much pressure will result in enlarged holes and failure: let the bit cut it's own way into the block. Take your time.
- The best set up is to use two drills: one Hammer/SDS drill to make the pilot holes, and a second standard drill to drive in the Tapcon screws.
- Don't reduce the number of bolts for the panels. Although the estimated pullout force is @ 600 lbs. per bolt, it assumes solid placement a full contact. This cannot be guaranteed.
- **Make sure** to leave an extra 1/4" minimum depth to the hole so that debris will be out of the way.
- **DO NOT USE Tapcons for attaching belay devices or any safety rope structures.** These must be engineered to withstand higher loads, and a licensed structural engineer should be consulted.

Mats – Flooring

The landing area at the base of the wall must be padded with some type of protective surfacing to prevent fall injuries. The area covered should be 6 feet out from the base of the wall for the entire length of the wall plus and ideally additional 4 feet beyond the ends of the wall. Do not place furniture or any other training equipment within this area.

Mats:

Brewer's Ledge sells a mat designed specifically for LedgeWall traversing wall. This 2.5" thick multi-layer mat is 4 ft x 6 ft and has loops at each corner for the LedgeWall Mat hanging system.

Using the mat hanging system, the mats are connected by loops to the bottom of the wall to keep them properly oriented. When the wall is not in use, the mats are flipped up and attached by sturdy clips to the top of the wall so that the wall is secured and padded for other activities in the area. An optional security cable can be used to lock the mats in the upright position. See Below.

Carpeted Foam Flooring:

If the flooring is permanent, we offer two or six-inch carpeted foam systems. This is a dual layered foam, soft at the bottom and a firm foam on the top, that is covered with a commercial carpet. It is easy to install with standard tools, and can be ordered in rolls or sheets.

Colors:

All our flooring options are available with color choices and install without special tools. Please call for the colors available.

Installing the LedgeWall Mat Hanging System

LedgeWall™ mats have loops so that the mats can be stored by hanging against the wall. This secures the wall, prevents damage, and provides a padded surface for other activities in the area. The mats are connected to the bottom of the wall with screw-lock hooks which keep the mats in proper position when the wall is in use. To secure the wall, the mats are flipped up and clipped at the top with spring clips. An optional security cable that threads through the loops and locks at each end may be also ordered to provide additional security (specify the total length of the finished wall).

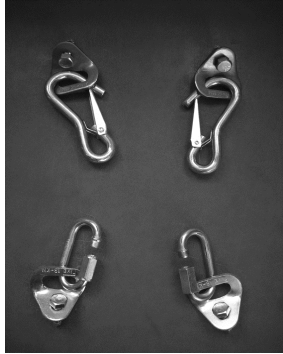


Fig 1

**(Fig 1) LedgeWall Mat Hanging Kit
Parts list (may vary depending if
individually or group packed):**

(2 or 4) 3/8" x 1.25" lag bolt
(2 or 4) Bolt hangers
(2) Snap hooks (2) Screw links

**Attaching loops to the spring clips
(Fig 2):**

The loop slips into the bottom of the spring clip.
The spring holds it in place.



Fig 2

Tools needed: Drill with 1/4" bit; socket wrench with 9/16" socket; tape measure.

Attach the bottom hardware:

Line up the first mat along the bottom of a panel. Hook a screw-link onto one of the loops and hold the hanger up against the wall high enough so that the slack is out of the loop (@ 7" off the floor if you do not have the mats). Drill and attach the hangers at this height at each loop along the wall.

If the panels form a continuous surface, attach just one hanger where the mats meet up in the middle. The hangers are big enough for two links. See instruction diagram with kit.

Attach the top hardware:

Attach spring clips to the loops at the outer end of one mat (Fig 2) and hold it up one against the wall at the height desired. This may be resting on the floor or level with the bottom of the installed panels. Mark the top height of the spring clip (@ 6'10" from the bottom of the mat). Drill at this height directly above the bottom hangers and attach the hangers. As with the bottom hangers, you may use one or two hangers where the mats meet in the middle – customer choice.

- Always use 2 spring clips per mat so that each mat may be lifted individually.
- Keep the top bolt hanger within reach of the user – no more than 7' is best. Low is better.

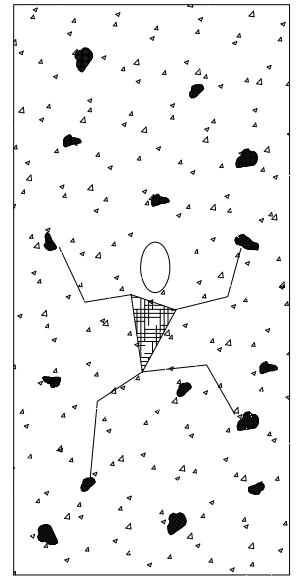
Safety Cable:

The safety cable will be slightly longer than the length of the wall with a loop at each end. Slip the cable through the top loops and use a padlock to attach each end to a hanger. The cable can be left threaded through the loops or removed each time the wall is used – it is a matter of preference.

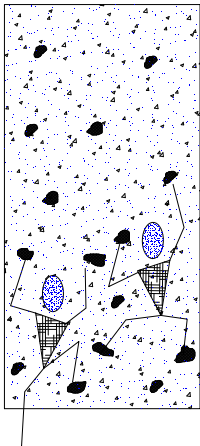
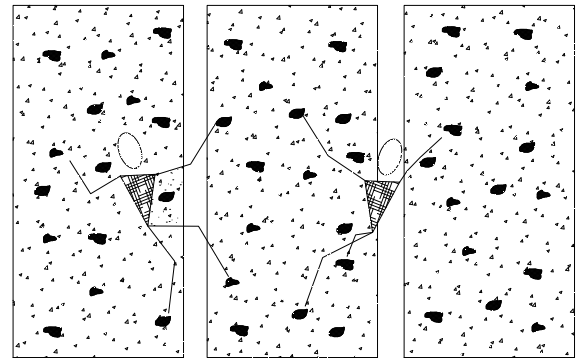
IMPORTANT: The equipment in this kit is not designed for load-bearing applications. Do not use for holding human weight, fall protection or overhead lifting

LedgeWall™ Route Setting

The rocks or grips that are bolted onto the LedgeWall Panel are called “holds” by climbers. A series of holds set up for climbers to follow are called a “route”. There are 15 holds per LedgeWall Panel. Each hold has one side with an incut or positive grip and each hold can be oriented so that the positive edge is on the top, the bottom, or to one side. In general it is best to sprinkle holds over the surface fairly evenly with the most positive surface facing up, especially near the center of the panel. Footholds are very important, so make sure there is a good line of holds near the bottom of the wall.



An important part of LedgeWall Panel climbing is stretching out to reach another panel as the climber traverses along the wall. These moves are easier if the holds near the sides are oriented so that they are easy to use. Turn the upper holds so that the positive edge faces somewhat inward, towards the middle of the wall, and face the lower holds outward, towards



Little kids like to climb too, but sometimes its hard for them to reach the holds, and often they don't want to climb too high. Make sure there are good holds low enough for little kids to reach.

The colorful LedgeWall holds do more than give a cheerful appearance to the wall. The colors can be used to set a “route” along the wall for greater challenge. As climbers get more experience and become stronger, they enjoy doing the “red route” or the “yellow route” especially if you set the routes to have a theme. One route might emphasize difficult balance moves, for example, while another might promote stretching or strength moves. Route setting is a fun activity that is a bit of an art. We encourage you to experiment by changing holds around periodically to give variety to your LedgeWall installation. You don't have to move them all – moving just a few hold can make a big difference.

Tighten the holds very firmly with the 5/16” allen wrench provided. Over time, the holds may loosen up, so check them periodically to make sure they are tight.

Programing Ideas

There are many options for programming a small climbing area. A lot depends on the age of the users and the nature of the usage. Listed below are various simple games and ideas aimed at kids that have been used over the years, a list that just a start in programming imagination always helps.

Follow the leader

The leader finds a path that leads from the end of one wall across the entire wall, traversing each panel until reaching the end. Everyone else must follow. If the climbers are all similar size, a good variation is to require everyone to use the same holds. If a staff member is involved, they can point out the holds used.

Tell me Show Me

Pair up the climbers. One climber starts at one end and the second person is going to point out the holds for the climber to use. The second person can suggest the kind of moves to do. For example, "step off the little yellow hold and reach for the orange hold with your right hand." Some variations:

- *Mumbo Jumbo*: The second person can only speak to the climber - they cannot point out the holds. They should keep their hands behind their backs.
- *What if?* The Second person can only point to holds - they cannot speak to the climber. Try limiting the time they can point out the next hold

Criss Cross

Divide the climbers into two groups. Have each group start at opposite ends of the climbing area. Both groups start at the same time and make their way to the other team's beginning spot. Starting the climb in series highlights the game's goal of having to pass another climber on the wall and working cooperatively.

Avoid touching a color

Have one climber start across the wall and give them one (or more) colors to avoid. A class sitting and watching can participate by warning the climber when a color is near.

Blind Round about

Pair up the climbers. One of the climbers wears a blindfold; the other will act as a guide. The climbers should climb completely across the wall area, and then switch roles. Try it once allowing the climbers to talk to each other, and then try it without any talking.

Movement work thoughts

- Have users try to use their toes instead of the side of their feet – body awareness
- Use hands on one color, feet on another – decision making
- Use one finger lightly on the user's back – build confidence without assisting

LedgeWall™ Warranty

1. WHO IS COVERED?

This warranty may only be enforced by the original purchaser of the LedgeWall™ panels or modules ("Original Purchaser").

2. ORIGINAL PURCHASER OBLIGATIONS.

- a. The Original Purchaser assumes full responsibility that of the LedgeWall™ panels or modules purchased meets the specifications, capacity and other requirements of the Customer.
- b. The Original Purchaser assumes full responsibility for the condition and effectiveness of the operating environment in which of the LedgeWall™ panels or modules are to function including spatial considerations.

3. HOW LONG IS THE WARRANTY?

According to the following schedule, Brewer's Ledge Inc. warrants to the Original Purchaser of the LedgeWall™ panels or modules that under normal maintenance of the LedgeWall™ panels or modules will be free from any defect in materials or workmanship.

- (1) One-year parts and labor

4. WHEN DOES THE WARRANTY BEGIN?

Warranty begins from date of delivery to Original Purchaser

5. WHAT IS NOT COVERED.

- a. Normal wear and tear is excluded from this warranty.
- b. No warranty shall be provided in the event of damage to the LedgeWall™ panels or modules incurred by negligence by the Original Purchaser. The sale of instructional materials to the Original Purchaser by Brewer's Ledge Inc. related to the assembly and break-down of the LedgeWall™ panels or modules does not imply any warranty against Original Purchaser negligence and does not void this exclusion. Brewer's Ledge Inc. reserves the sole right to determine the origin of damage as related to this provision.

6. LIMITATION OF DAMAGES AND IMPLIED WARRANTIES.

- a. Except as provided herein, Brewer's Ledge Inc. makes no express warranties; implied warranty of merchantability or fitness for a particular purpose is limited in its duration to the duration of the written limited warranties set forth herein.
- b. In no case shall Brewer's Ledge be liable for any special, incidental, or consequential damages based on breach of warranty, breach of contract, negligence or any other legal theory. Such damages include but are not limited to, loss of profits, loss of use of the equipment or any associated equipment, the cost of capital, the cost of substitute equipment, facilities or services, downtime, the claims of third parties, including customers, and injury to property.

This limitation does not apply to claims for personal injury where such limitation would be a violation of the applicable law. 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.

7. TERMS OF WARRANTY

The terms and conditions of this warranty are applicable as between Brewer's Ledge and Original Purchaser to the sale of the LedgeWall™ panels or modules to Original Purchaser.

8. STATE LAW RIGHTS

This warranty gives you specific legal rights, and you may also have other rights that vary from state to state.

LedgeWall™ Maintenance

The LedgeWall™ panels and modules are constructed of the highest-grade plywood and framing materials. They will last for years. However, a little maintenance will keep your wall looking new and inviting to use.

1. PAINTING

LedgeWall™ panels and modules come from the factory pre-painted unless otherwise requested. Both the charcoal color and paint have been carefully chosen to minimize wear and hide the marks that come from climbing. Paint may be purchased from Brewer's Ledge. If purchased locally, use a high-quality floor enamel with a 1/2" or 3/4" roller for best results

Std. Paint: premium latex floor enamel, **50% Black and 50% Battleship Grey**.

Take advantage of the unique ability to re-paint colors by customizing your panels while maintaining the texture for climbing. Schools might consider murals or custom logos and homeowners might match a room color.

2. EXTERIOR PROTECTION

If the LedgeWall™ panels and modules are to be positioned outside, remember to caulk any seams and coat the edges and any exposed wood. It is important with exterior use to ensure that any edges have been lightly rounded to optimize paint adhesion and protection against moisture.

3. DAMAGE REPAIR

Damage to the LedgeWall™ panels and modules can be repaired using two-part auto body repair filler. Carefully fill the damaged area and sand lightly to remove any sharp edges before repainting. Make sure to follow the manufacturer's instructions on the container.

4. WORKING WITH TEE-NUTS

The tee nuts used on the LedgeWall are premium industrial tee nuts used on commercial climbing walls. They are designed to minimize/eliminate cross threading and stand up to repeated use. However, it is always important not to force a bolt into a tee-nut. If you feel resistance the bolt is probably going in crooked and becoming cross-threaded. Stop and start over.

If the bolt still has resistance, remove the hold and try to screw in the bolt alone. This usually allows you to see if something is crooked or mis-aligned. Another helpful method is to start the bolt while holding the hold slightly off the surface: this allows you to align the bolt without the hold affecting the bolt position.

5. CLEANING HOLDS

Climbing holds will get dirty with use. Cleaning holds will encourage use and appearance. Remove the holds and wash in a commercial dishwasher, or wash in a home dishwasher multiple cycles, or pressure wash in a milk crate, or soak in a cleaner such as Simple Green®. Holds can be washed repeatedly and will look close to new when done.

One popular method is to take off one color at a time to clean. Or if you have ordered extra holds, swap them out for the set being cleaned.

Clean holds make a difference!!

Spare Parts

You can purchase extra parts anytime needed. Please call us for pricing and delivery details. The following items are available:

- holds - visit our site at <http://www.brewerfitness.com/store> for a full selection.
- paint (US only)
- tee nuts
- mats
- mat hanging equipment