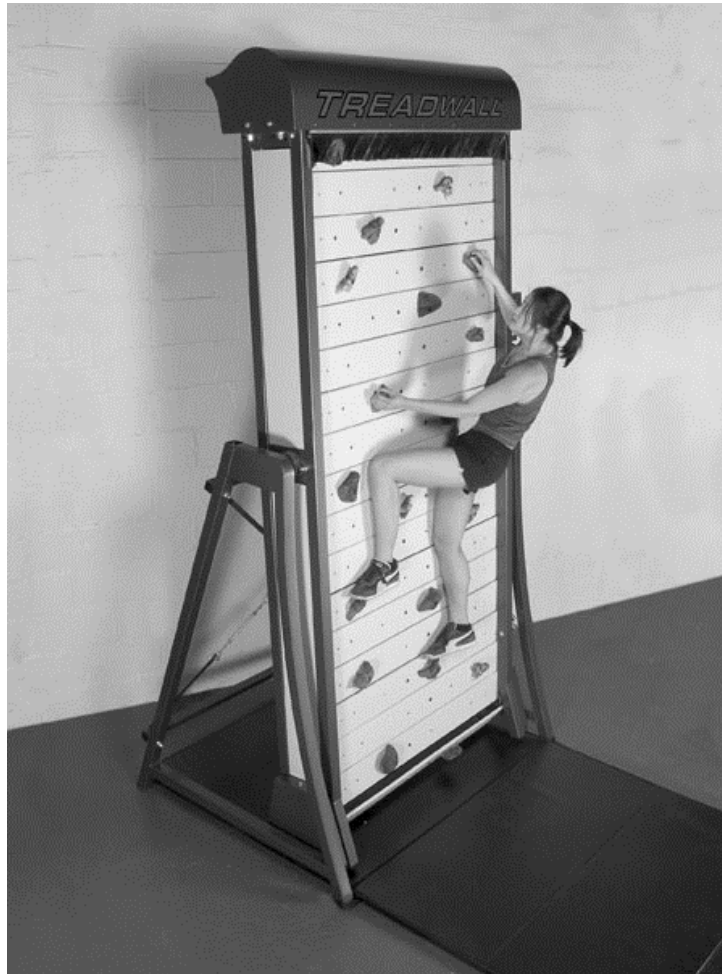


**COMPLETE OWNERS MANUAL**

**TREADWALL♦ Model M4 Pro-T**



**BREWER**  **FITNESS**

*Brewer Fitness • 87 York Ave • Randolph, MA 02368 USA • 781-961-5200 • [www.brewerfitness.com](http://www.brewerfitness.com)*

# INTRODUCTION

This book is an important part of your Treadwall® package.

Vertical movement is a recent option in fitness and training, and often misunderstood. Simply installing equipment will not guarantee a strong program. A successful program needs people who understand its potential, benefits and how to use it as a fitness tool.

Sometimes, when we visit clubs with Treadwalls, we hear the comment “Oh yeah, the Treadwall. I’ve tried that. It’s a real workout!” True, the Treadwall can be set to give an upper-body challenge that will soon exhaust the fittest person, but it is also capable of delivering a remarkable aerobic burn that anyone can “enjoy.”

You need to focus on trainers who look at the Treadwall with a creative eye, understand that they have found a highly effective activity adaptable to all levels of fitness, and who integrate vertical movement into their own routines as well as their clients.

This book is designed to help managers, staff and trainers make the most of their Treadwall. It suggests ways to engage staff/clients and a reference tool to help design fitness programs. Many of the ideas are easy but effective. Others are more ambitious. They all can work!

*Jeff Brewer, inventor of the Treadwall, works out on the first prototype, fall, 1990*



## Choosing an Advocate: first crucial steps

When the Treadwall is first installed, it will be an unfamiliar item. Climbing will be a relatively new training activity for most. We recommend that a staff person be chosen as the main advocate for the product's introduction period. This person might take on the following responsibilities:

- a. Read through the manual and familiarize yourself with the Treadwall's operation procedures, use and set-up.
- b. Formulate a plan to integrate this equipment into your classes, personal training or general usage. Consider making announcements and sending out emails to promote the new addition to your member.
- c. Meeting with staff for the first month for weekly suggestions on new training ideas and get their feedback on the use of the equipment.
- d. Consider challenges, competitions (joining our Everest Program), fun ways to get your members hooked on Vertical Movement.

Another important first step is to consider carefully the location and positioning of your Treadwall. A location that is too visible - for example in the direct focus of members using CV equipment or walking in the entrance - may discourage people from climbing. Often simply rotating the Treadwall slightly will dramatically improve its



## THE FIRST YEAR:

### Suggestions for making the Treadwall work a success:

Developing an effective fitness program involves more than just placing a piece of equipment. To unlock the full potential of the Treadwall, the machine and vertical movement should be properly integrated into your facilities environment. (refer to the box above for suggestions)

### Important Basic Groundwork:

Staff should understand that vertical movement is a basic human activity, non-contrived and part of everyday life. It should be presented a positive addition to the facility

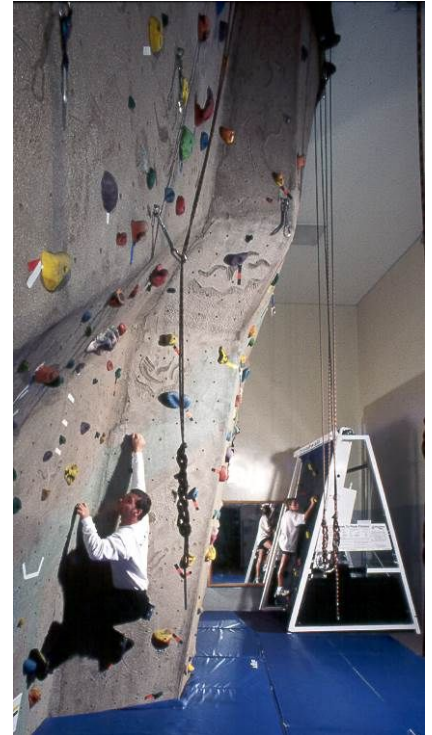
Climbing will often be perceived as challenging and intimidating activity. A staff locked into the value of vertical movement as a fitness tool is the key for changing this perception. Members should be actively encouraged to try the Treadwall and

consider it for part of their workout routine. We have found that people who are initially hesitant often end up being the biggest Treadwall fans.

**Introduce Treadwall to Staff:** Have them read this

During this introductory period, it is crucial that all staff learn how to operate the Treadwall and become familiar with the benefits of vertical movement. Being able to adjust the wall to best suit each person is key to making a Treadwall comfortable for anyone.

- 1) You should use the equipment yourself to get a first-hand look at how the workout makes you feel, learning to access angle/speed for a variety of abilities and to reap the benefits of vertical movement personally.
- 2) At first this equipment may be considered intimidating, but the more knowledge you can pass on to your members about training and benefits will help bridge the gap.
- 3) Check out all the different ways it can be used (varying hand grip, angle and body movement) --- to keep it engaging to the user. Be creative.



**The Benefits of Vertical Movement:**

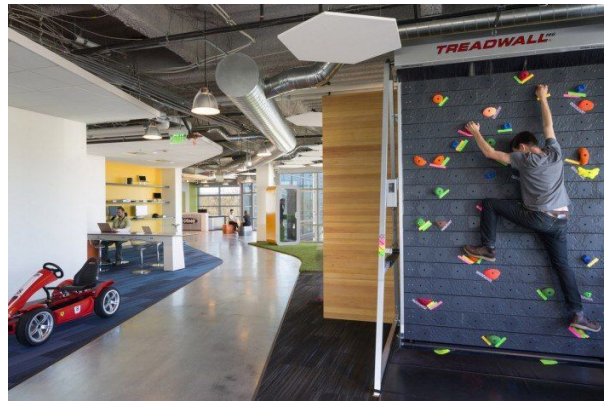
Most fitness activities target isolated muscle groups, but vertical movement is different. Using a treadwall provides a full-body, non-repetitive exercise that can be adapted by the user for different goals. By adjusting the exercise patterns, angle and/or speed you can vary the amount of cardiovascular endurance, upper-body strength and grip training you perform for a customized experience. Working out on a Treadwall is fun and mind-engaging. In terms of focus and mental involvement, climbing has no peer. The activity requires constant decision-making and concentration. This promotes a quick motor response and muscle recruitment. Technique, balance and core strength interplay and climbers often develop a heightened sense of body awareness and confidence in their daily lives.

The Treadwall can be used by itself by performing intervals, for circuit training with other equipment or longer periods for pure endurance. It is a low-impact full body workout which makes it an ideal complement to other fitness activities and sports. It can be used as a warm up, cool down or a high intensity programming.

Customize it to suit YOUR needs and GOALS.

**Basic Operations:** (refer to quick start sheet at the end of this document)

- 1) Changing angles,
- 2) Choosing different routes
- 3) Creating different types of workouts (aerobic, strength, flexibility) You can find helpful programming ideas on our website: [www.brewerfitness.com/index.php/info/training](http://www.brewerfitness.com/index.php/info/training)



**Make sure the holds are set in the easiest possible routes.** Spend some time reviewing and fine tuning hold positions. (Using the routesetting guide on page 7 and 8) This is a good opportunity for staff to learn and discuss route setting:

- What happens when you turn a hold to a different orientation?
- How does the angle of the wall affect the way the different types of holds work?

**Make strong attempt to get all members to try the Treadwall for at least one workout session.** They should try it at a positive angle first so they can get familiar with the balance and motions involved. Try the workout on the *Quick Start* with them if you need a reference.

- Emphasize controlled, smooth climbing and attention to balance and footwork.
- Suggest short workouts to start, which will complement their current workout routine

**Setup a Mt. Everest club challenge for staff and members.** Perhaps use teams. (Brewer Fitness provides free Everest Club membership to the first three staff members to complete the challenge.

***The Everest Club:***

*Climb 29,028 feet on the Treadwall and you are eligible to join. You can find the Everest application and a training log to keep track of distances on our website: [www.brewerfitness.com/resources](http://www.brewerfitness.com/resources)*

***Special incentive:***

*Brewer Fitness provides free Everest Club Membership to the first three staff members to complete the Everest Challenge*

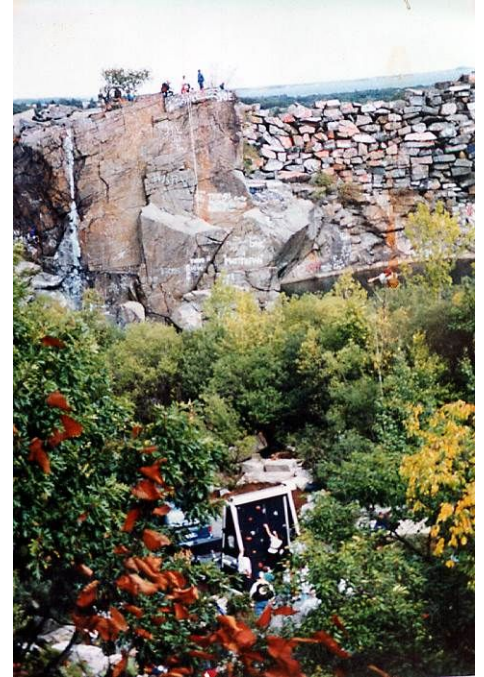
**Recognize the first members to start on Mt. Everest Club challenge.** Use the bulletin board to put up names and perhaps pictures.

## Continuing Education and Interest:

Set up a meeting with trainers to establish goals and training ideas for continuing to advocate use of the wall. The following are ideas for positive criteria:

- Cross-training for sports that emphasize forearm strength such as martial arts, baseball, swimming and tennis.
- Weight-loss programs. Focus on manageable goals, using easier positive angles. Emphasize smoothness over speed.
- For Cardiovascular try 15 minutes once a week or every two weeks in place of a treadmill.
- As a warm-up, especially for lifting. Suggest using ground-based training (hands only) for larger lifters.

**Once you feel it has become part of the scene at your facility.** Now that vertical movement is a stronger part of the workout landscape, it's time to get creative with special programs and combinations with other workout activities. Use Staff as resources for these ideas.

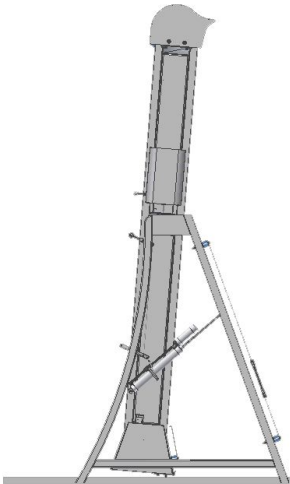


# Working out on the M4 Prot

## A FULL BODY WORKOUT

Climbing on the Treadwall is a workout that builds your body in many ways. By adjusting the Treadwall's simple controls (see other side) you can create a custom regimen that emphasizes aerobic conditioning, upper body strengthening, flexibility or balance. No other single piece of exercise equipment provides the variety and flexibility of a Treadwall workout.

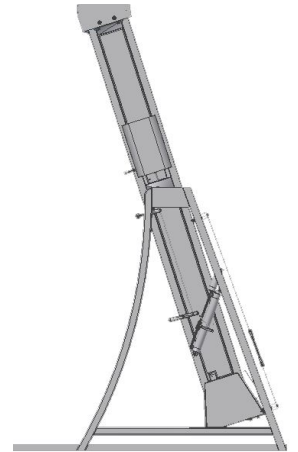
**ANGLES** How you set the angle makes a big difference in the climbing workout!



**SLAB ANGLES:**  
The easier slab angles are terrific for aerobic and balance workouts. At these angles, most of your weight is on your feet and legs. You develop balanced and graceful motion with a non-repetitive workout.

**VERTICAL:**  
Climbing at the vertical angle is a great balanced workout. Legs, arms, hands, feet, trunk and shoulders are all brought into play for full-body natural exercise. Excellent as stand-alone activity or part of a comprehensive fitness program.

**OVERHANGING ANGLES:**  
Climbing on an overhanging wall gives a vigorous upper-body workout. A great way to develop arm, hand, shoulder and back strength with a natural activity that uses your own weight for resistance



## WORKOUT SUGGESTIONS

### **AEROBIC:** 15-20 minutes.

Set to a **slab angle** and climb at a comfortable pace. Use the speed control knob to adjust the Treadwall to match your climbing speed. As you get more comfortable, you can choose different holds and routes.

### **FLEXIBILITY - WARMUP:** 8-10 minutes.

Set to **vertical or slab angle**. Climb using the longest reaches and highest steps that you can manage. Work for slow stretching motion.

### **UPPER BODY:** 3-5 minutes.

Set to an overhanging angle. Don't overdo it at first – work your way up to the hardest angles. Good footwork is still important, but you will find more of your weight on your arms and hands. Smooth controlled climbing is best.

### **FOREARMS-SHOULDERS**

This unique workout keeps your feet planted on the ground. Set the Treadwall to an overhanging angle. Reach up and pull the wall around using lots of different holds. Start with the speed control set to fast and work your way up to more resistance as your shoulder strength increases.

## ROUTES

### **WORKOUT VARIETY:** *Choosing different routes will add interest to your workout.*

Use the colors of the holds to create routes: Choose a route that uses only one color or eliminate (don't use) holds of one or more colors.

Try staying to the left or right or go straight up the middle.

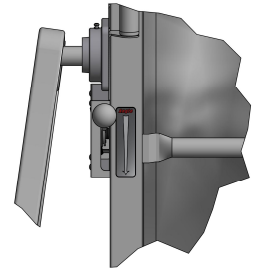
If you climb with a friend, find different routes to challenge each other.

# TREADWALL® M4 Prot Adjustments

The Treadwall is the world's first rotating climbing wall - it allows you to climb continuously for as long as you like. The weight of the climber operates the Treadwall. When you step onto the wall, it starts, and when you step off, the motion stops. An automatic braking (Auto Stop) system regulates the motion to match your climbing.

## Angle Adjustment

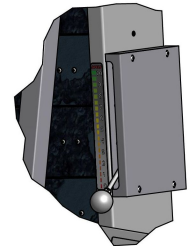
- 1) To change angle, move the lever on the right side. A range of 10 degree positive to 20 degrees negative is available and you can stop anywhere.
- 2) For a negative angle, stand on the wall and your body weight will move the wall to a negative angle. You can stop at any time by letting go of the lever.
- 3) To return to a positive angle step off the machine, lower the lever and it will swing back to a positive angle.



## Speed Adjustment

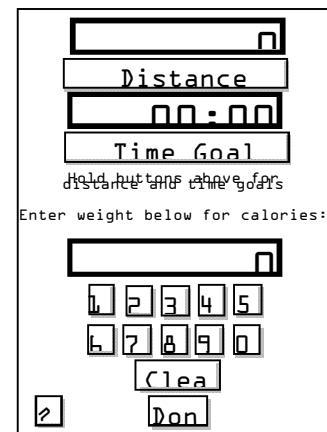
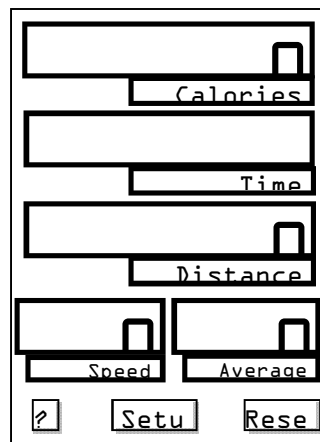
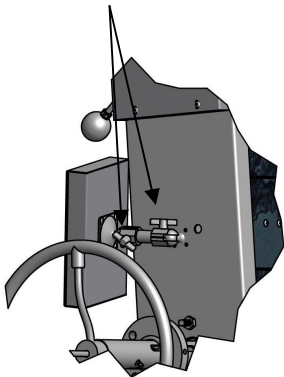
The speed lever on the right-side controls speed or resistance. One is stopped, ten is fast

- 1) Before climbing set to slow.
- 2) One on the wall and you start to climb, adjust the speed to suit your pace.
- 3) If performing ground-based training, use the speed lever to set resistance



## Display Adjustment

### Adjustment knobs



The display will start as soon as you begin climbing. It will pause if you rest for 5 seconds, and it will power down after 5 minutes of non-use. To turn the counter back on just start climbing or tap the screen. You can adjust the view angle by adjusting the small arm at the rear of the counter.

### Home Screen

The home screen shows real-time data for a single climb. When you pause for 5 seconds the counter will hold your data on the screen until you begin climbing again and then it will start from where you left off. To reset the counter for a new climber hit "Reset."

### Setup Screen

To set a distance or time goal tap or hold the buttons labeled "Distance Goal" or "Time Goal". The values will increase more rapidly as you hold the buttons down longer.

The number pad allows you to enter your weight for a more accurate calorie count. The default weight is 150 pounds. When you are satisfied with your goal, hit done and the value you selected will appear on the home screen.

You can only select a distance or a time goal, not both at once.

You may switch between feet and meters by pressing the "?" and making the choice.



## Common questions about the Treadwall®:

# Q&A

### ***How hard is climbing on the Treadwall?***

Climbing on the Treadwall is as hard or as easy as you choose. The wall is customizable in difficulty by altering the speed, angle and route you follow.

### ***How fast can I climb on the Treadwall?***

The Treadwall is easily adjusted via the speed lever. In addition, the auto-stop system will keep pace with your stops and starts. We recommend starting off climbing at a slower controlled pace, focusing on smooth movement.

### ***How does the Treadwall work?***

The Treadwall operates by the weight of the climber. There are no electric motors. A hydraulic brake controls the speed of descent. The Treadwall cannot move after the climber steps off.

### ***How long should I climb for?***

This depends on your objectives. Test out various methods and take a look at our training section:  
[www.brewerfitness.com/index.php/info/training](http://www.brewerfitness.com/index.php/info/training)

### ***Will the hold pattern get repetitious?***

Eventually, but it takes much longer that you might expect. The Treadwall has no beginning or end, and it continually presents you with new challenges and possibilities. It is simple to set holds in other places and change the climb completely.

### ***Do I need special shoes to climb the Treadwall?***

No. Any well fitted athletic shoe will do quite well. However, special climbing shoes are more enjoyable to climb in. Climbing shoes are very close fitting with a special flat sole of special 'sticky' rubber. They are quite expensive. Karate shoes are a good inexpensive alternative.

### ***Can anybody use the Treadwall?***

Almost anyone can perform vertical movement. Anyone with a serious physical problem should consult with their doctor, and people with very long fingernails should think twice. We also suggest taking off your rings before climbing.

### ***Can you be too old to climb?***

Maybe, but we have reports of people well into their 70s who enjoy climbing on the Treadwall. One climber 72 years old recently completed the Everest challenge (29,028 ft.) - for the second time!

### ***Does everyone like it?***

Most people who try the Treadwall love it. Some of the biggest fans are people who start off saying "I don't think I'd like that." Everyone should be encouraged to give it a try.

### ***I have never done that. Will it take me long to learn?***

Never climbed? - not likely. Most children spend many happy hours climbing play equipment and trees. For adults, climbing on the Treadwall recaptures much of that simple joy and natural vertical movement.

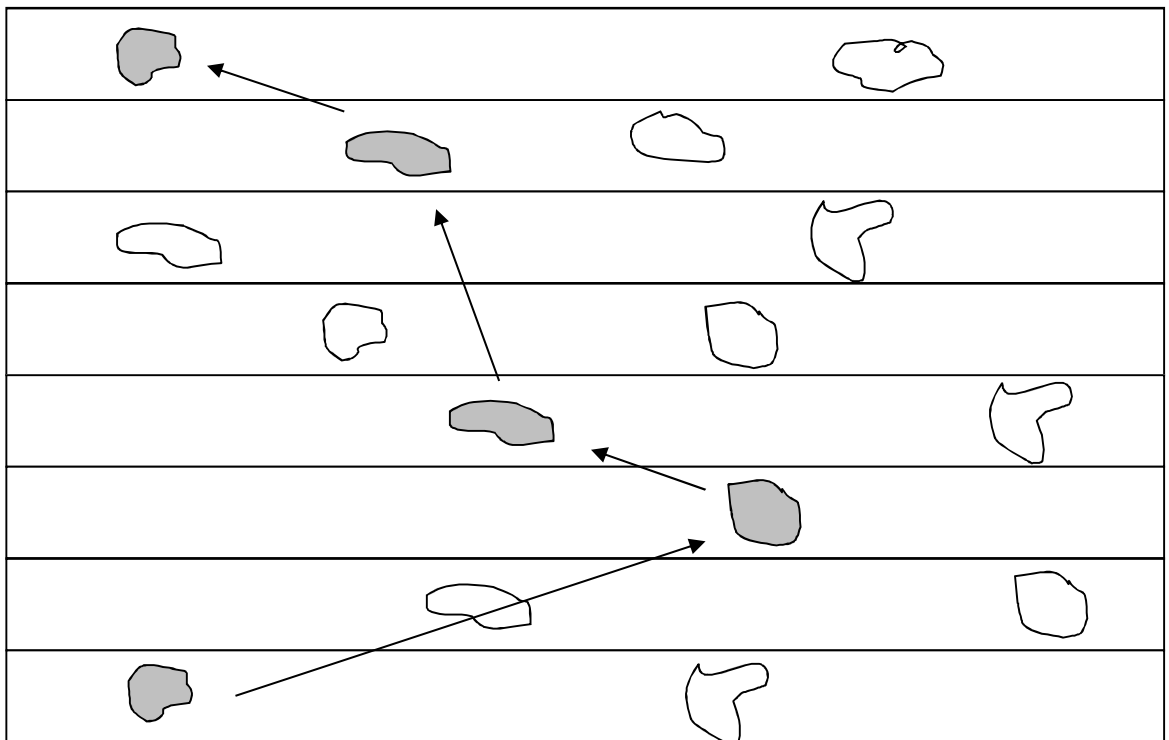
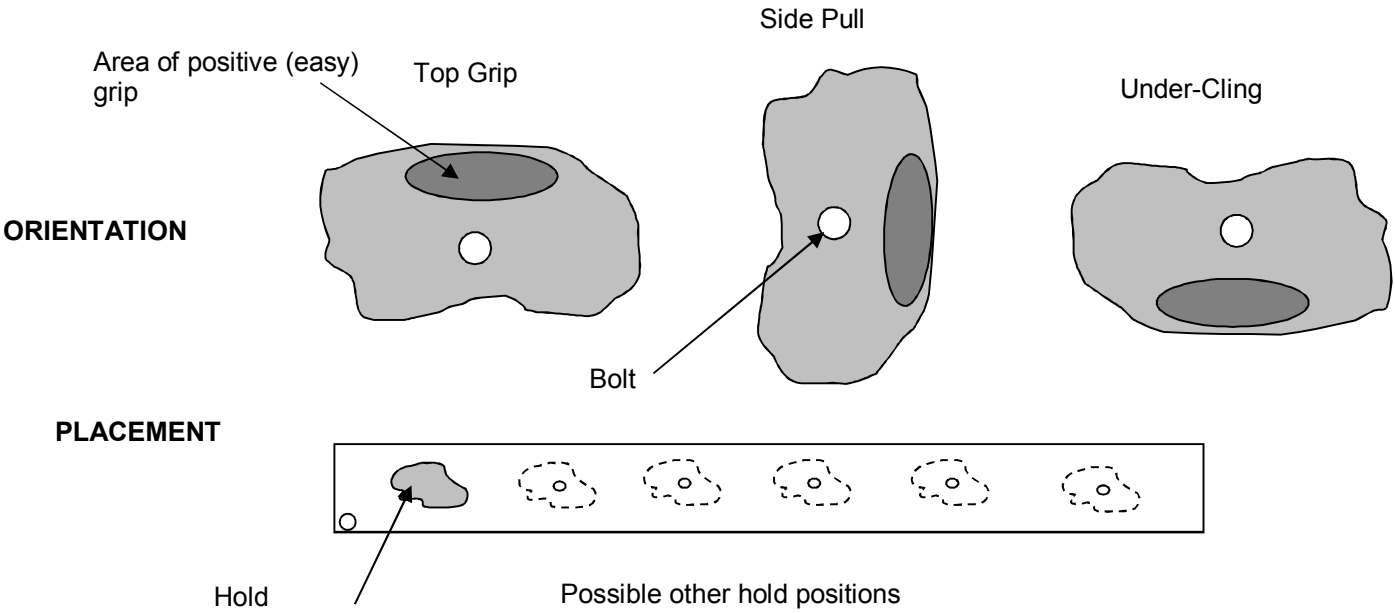
### ***What kind of bodies does Vertical Movement build?***

Climbing and gymnastics are similar, promoting muscle tone, flexibility and endurance with increased agility and body awareness. Your body will respond by burning fat, creating a lean muscle structure and increasing bone density

***Do serious climbers like the Treadwall?*** Yes, it is a perfect endurance training tool, all the way from elite climbers to a novice.

# ROUTE SETTING AND HOLDS

The climbing holds provided with the Treadwall are universal to all climbing walls. They come in various colors, textures and materials can be set up in any number of ways by orientation or placement to provide new and different routes.



**The Treadwall set you have received is specially designed for the Treadwall.** There are 40 holds divided into 3 color groups, and each hold has an orientation arrow and a number. This allows on-line route sharing and exchanges. There is no large difference in difficulty between the set (you will find a routesetting app on our website: [www.brewerfitness.com](http://www.brewerfitness.com))

- The **Green group** is more uniform and is the easiest size to use.
- The **Orange group** has more surface shape and finger positions.
- The **Red group** has a third selection of hand positions and choices, but increases in difficulty

### Setting patterns

Start with one color. For example, use red holds spreading them out over the length and width of the wall. Test climb while bolting them on to make sure that the workout will be reasonable. Important: Each hold must be completely on its panel. Do not allow any holds to overlap the space between two panels or the wall will not rotate properly.

To start, orient most holds with the positive grip upward (easiest position), but look for places where variety can be added. Turning some of the holds will suggest a side-pull orientation. Turning others up-side-down will provide an interesting "undercling" movement (promoting more emphasis on the bicep and lower trap).

After establishing an easy single color route, fill in with the other holds. Again, most of the holds should be placed with the easy side up, and spread out over the whole width. Avoid clustering the holds in adjacent holes and too many in one section leaving big "blank" spots as this can make it harder to use.

With a few holds left, climb your route a couple of times to find any hard spots. Try climbing up just the left side, and just the right. Try elimination routes (avoid using reds, for example, or use just oranges) to see if they are possible. Use the last holds to fill in any obvious gaps.

### Route setting guidelines

- Emphasize non-repetitive movement and reaching.
- Create lateral movement.
- Always keep one really easy route.
- Use fewer big holds rather than many smaller holds.
- Plan routes with a purpose - flexibility, underclings, footwork, etc.

### Programming tips

- To change the route it is not necessary to take all the holds off. It is amazing how the wall will change if you move a few holds around or even if you just rotate some of the bigger holds.
- Establish a schedule for changing the routes.
- Try to introduce new holds on a regular basis. This can be done through Brewer Fitness website or a number of hold manufacturing companies. Some size restrictions apply - call Brewer Fitness for details 781-961-5200
- Publicize new routes. Use member's bulletin board to post changes.
- Use members to help with route setting. Start a "climbing club" to create a sense of purpose and provide knowledgeable people to keep routes fresh.

## SAMPLE HEIGHTS – AROUND THE WORLD

30'	Typical street lamp
58'	Texas School Book Depository - 6th floor
190'	Niagara Falls (American Side)
302'	Statue of Liberty
555'	Washington Monument
607'	Space Needle, Seattle
642'	Top Span, Astrodome roof.
984'	Eiffel Tower, Paris
1250'	Empire State Building, New York
1454'	Sears Tower, Chicago
2,717'	Burj Khalifa (tower in Dubai)
3200'	Angel Falls, Venezuela
4610'	Mt. Vesuvius, Italy
5117'	Devil's Tower, Wyoming
5267'	Mt. Katahdin, Maine
6288'	Mt. Washington, New Hampshire
7310'	Mt. Kosciuszko, high point in Australia
7569'	El Capitan, Yosemite National Park
8842'	Half Dome, Yosemite National Park
9570'	Mt. Olympus, Greece
11245'	Mt. Hood, Oregon
13766'	Grand Teton, Wyoming
14161'	Mt. Shasta, California
14495'	Mt. Whitney, high point continental US
14692'	The Matterhorn, Germany
16864'	Mt. Vinson, high point Antarctica
17011'	Mt. Arrarat, Turkey
18510'	Mt. Elbrus, high point of Europe
19938'	Mt. Kilimanjaro, high point of Africa
20220'	Mt. McKinley, high point of North America
22834'	Mt. Aconcagua, high point of South America
29028'	Mt. Everest, highest point in world



**“IMAGINE CLIMBING THE HEIGHT OF EVEREST AND TELL ME WHO WOULDN’T FEEL ACCOMPLISHED.”**

---

## RESOURCES:

1. [www.brewerfitness.com/index.php/info/training](http://www.brewerfitness.com/index.php/info/training)
2. Eric J. Horst – Climber. Performance Coach. Author has written multiple books on climbing training and exercises to improve strength to weight ratio
  - a. Training for Climbing
  - b.
3. Rob Pizem Site
4. Climbing Books/articles to reference



## TREADWALL M4 Pro-T SERVICE MANUAL

The Treadwall M4 comes in two models, the Base unit that is a vertical-only machine, and the Pro model that has a support frame allowing different angles for climbing. Except for the angle changing feature, the Base unit is the same as the Pro version, and most of the information in this manual applies to both units.

### GENERAL MAINTENANCE

The Treadwall M4 is a relatively maintenance-free machine, and requires little operational attention. Aside from an occasional chain adjustment and application of wax to the panel ends (see following pages), the only regular maintenance is attention to the climbing holds and climbing surface.

Because of the contact with the climbers' hands and feet, the climbing "holds" become unpleasantly dirty over time. We recommend the following cleaning procedure:

- Remove the holds that are to be cleaned.
- Just put them in a dishwasher with regular dishwashing detergent. After one cycle rotate and move the holds around to clean the other sides, and run it again.
- If there are residual areas of grime, scrub them with a toothbrush or other small brush.
- Replace the holds on your Treadwall.

It is neither necessary nor even desirable to remove all the holds at once when cleaning them. The Treadwall has about 40 holds, and a good plan is to clean 10 at a time. If this is done on a 2-week schedule, the entire set will stay in good shape, and the changes in climbing routes that naturally occur when the holds are replaced will keep the climbing experience fresh and interesting. Some owners purchase an extra set of 10 holds to switch out with the ones to be cleaned.

See the owner's manual for suggestions on route setting.

### PAINTING

The wall surface itself, of course, will show evidence of wear over time, due mostly to contact with users shoes. Normal cleaning maintenance will help, but eventually a re-painting will be in order. To re-paint, take off all the holds and mask the frame edges with masking tape. Roll on a coat of good quality latex deck paint, rotating the wall around to reach all the panels. A quart of paint will be plenty. Let it dry overnight before replacing the holds. Paint matching the original Treadwall finish is available from Brewer's Ledge.

## **DRIVE CHAIN ADJUSTMENT (See Drawing on Following Page)**

The Treadwall speed is regulated by a hydraulic pump located inside of the control box. To open the control box, remove the two small screws that lock it closed and carefully lift off the box.

The pump is driven by a chain from the top shaft, and occasionally the chain must be adjusted as it develops slack. You can remove a small side panel above the pump to check the chain and it's adjustment.

Notice the long threaded adjuster-screw above the pump The chain is tightened by turning this screw with 9/16" wrench, driving the pump downward. *Do not over-tighten the chain!* Just take out the excess slack and leave in a little play. If the chain is too tight, there will be a lot of resistance and the Treadwall will not rotate easily.

The chain will need to be checked after a couple of weeks of use – the initial break-in period – and should be checked every 6 months thereafter.

## **CABLE ADJUSTMENTS (See Drawing on Following Page)**

### **SPEED-CONTROL CABLE**

If the speed-control cable stretches, it will need a minor adjustment. If the control lever cannot slow the machine to a very slow pace, this adjustment should correct the problem.

- 1) Remove the cover to the control mechanism that is located high on the right side of the LadderMill.
- 2) Set the control lever to the slowest position (all the way down).
- 3) Examine the cam that controls the pulley-arm in the control mechanism. The cam has a small hole that should be aligned with the pulley on the pulley-arm.
- 4) If the cam-hole is not aligning with the pulley, it can be adjusted by turning out the cable adjuster
- 5) If there is not enough adjustment in this adjuster, there is a second adjuster inside the lever-box down below. If in the unlikely event that you need yet more adjustment, the cable can be tightened by loosening the clamping screw in the lever and pulling the excess cable through with pliers.

## ADJUSTING TREADWALL SPEED CONTROL CABLE

### Parts and Tools Needed:

1. Philips head screwdriver
2. Stepladder
3. Pliers

---

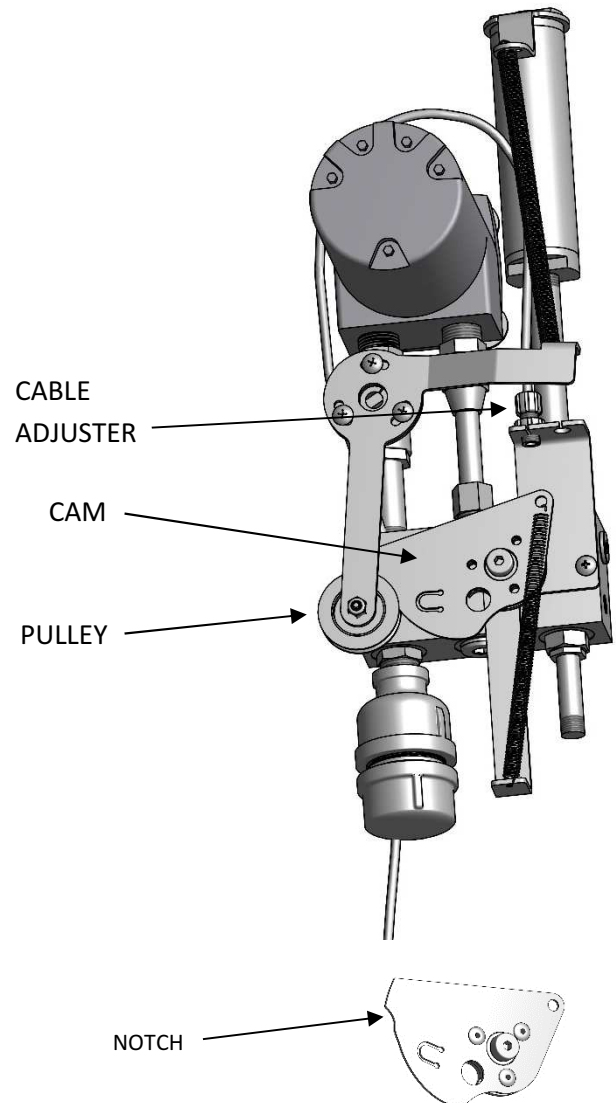
### Procedure: (about 10 minutes)

The M6 Treadwall operates by the weight of the climber and uses a hydraulic control-braking system to control the speed of descent. When the speed lever is at the slowest position, the wall should be locked up. As soon as the lever is moved from that position, the wall should start moving under the weight of the climber.

It is the nature of this system that there is a slight amount of creep – even at full stop, the wall will move down very slowly. If the creep is excessive, the cable may have stretched slightly and need adjustment.

1. Adjust the speed lever to the slowest position.
2. The hydraulic unit is at the top of the right channel. Remove the cover (two screws).
3. Note the cam and pulley that together control the valve. With the lever at slowest position, the pulley should be at the highest point of the cam. There is a notch at the highest point that the pulley fits into.
4. If the pulley is not at the highest position, tighten the cable with the adjuster.
5. Operate the lever a few times to check the adjustment. If the wall still creeps excessively, see the instructions for adjusting the cam follower.

### Figures:





## TREADWALL AND LADDERMILL SPEED LEVER RESISTANCE

### Parts and Tools Needed:

1. Phillips head screwdriver
2. 9/16" wrench or small adjustable

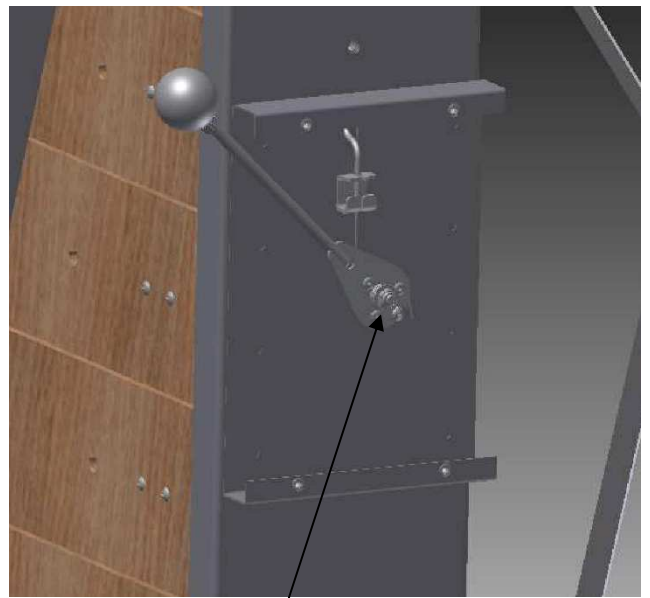
---

### Procedure: (about 10 minutes)

The speed adjustment lever has spring washers that maintain resistance. Over the course of time it may need adjustment to restore the correct amount of friction.

1. Remove the cover from the speed control box (four screws).
2. Adjust the central mounting nut to achieve the desired resistance.
3. Replace cover.

### Figures:



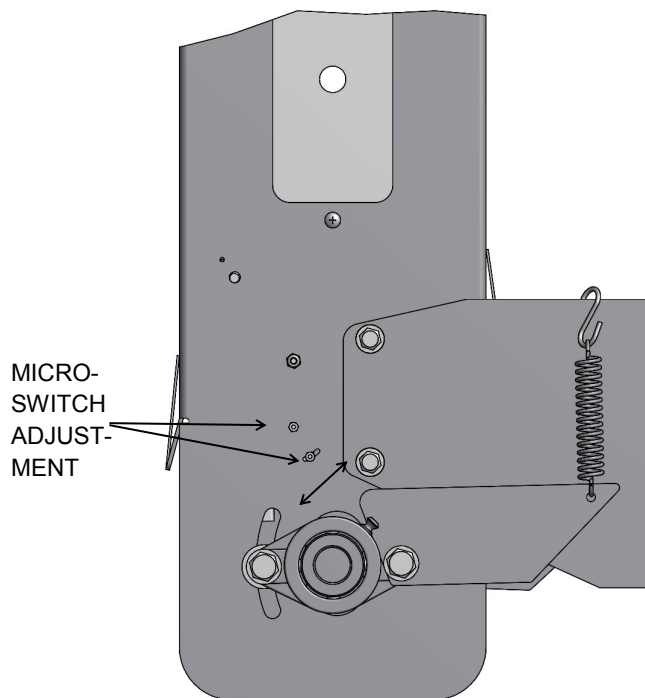
RESISTANCE ADJUSTMENT NUT

## Service Instructions

### Auto-Stop Adjustment

1. Loosen the two small nuts on the outside of the channel that hold the microswitch in place.
2. Adjust the microswitch by pivoting it around its upper mounting screw (see diagram).
3. Retighten the small nuts (not too much force – they are very small!)
4. Test the wall and re-adjust if necessary.

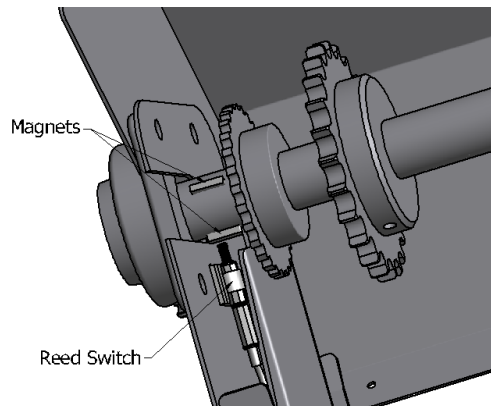
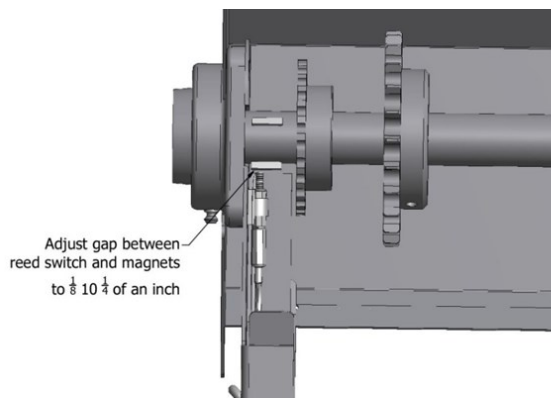
If the microswitch needs to be inspected further or replaced remove the plastic access hole cover and all nuts and washers from the microswitch. Reach inside of the access cover and unclip the electrical wire from inside the channel and pull the microswitch out.



BOTTOM OF RIGHT CHANNEL

### Counter Sensor Adjustment

1. Remove 1 or 2 panels
2. Rotate panel gap to reveal sprocket and sensor assembly on right side of machine.
3. Inspect sprocket and make sure that three magnets are present, they should be equally spaced around the shaft with the flat face of the magnet facing outwards
4. Inspect reed switch position, the tip should be 1/8 to 1/4 inch from the magnets.



## Servicing M4 Pro/Laddermill angle adjustment cylinder

### Parts and Tools Needed:

- 1/4" allen wrench
- 3/16" allen wrench
- Large adjustable wrench
- Small funnel
- Rag or paper towels
- Small container of water

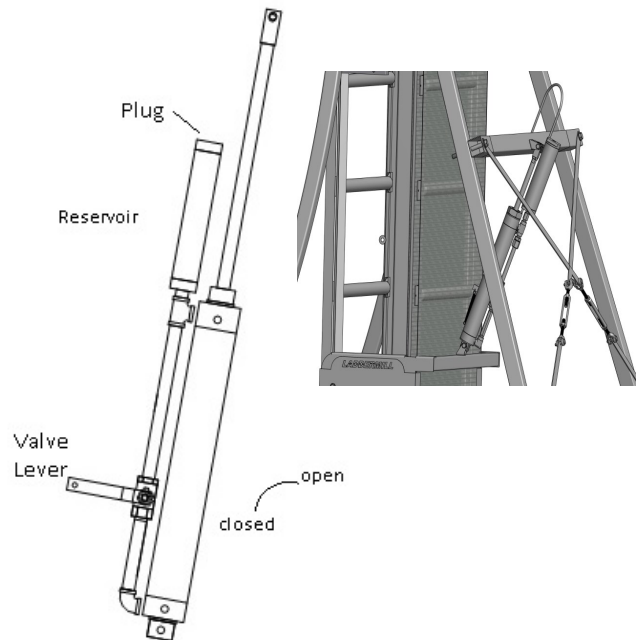
### Procedure:

- 1) Loosen the plug at the top of the reservoir. Use the allen wrench. If the plug is very tight, you may have to hold the reservoir from turning with a large adjustable wrench. Spread out the rag or paper towels under the cylinder to catch any drips.
- 2) Remove the plug and fill the reservoir with the supplied fluid. When filling the reservoir, the cylinder rod should be pushed in, so push the wall to the most overhanging position and have someone hold it there while you fill it.
- 3) Hold the control valve open and **slowly** move the wall back and forth a couple of times. With the wall all the way back, check the level of fluid and top it up if necessary. The supplied fluid should be enough for the job, but if you need more, simply use water.
- 4) While holding the wall all the way back, replace the plug and tighten it down.

If the cylinder seems "spongy" after re-filling, there is air trapped in the lower part of the cylinder. To bleed out the air, disconnect the connecting rod from the valve lever (one clip) and with someone holding the wall, remove the bolt holding the cylinder rod to the rear frame.

With the valve open, carefully swing the cylinder down and slowly push the rod in about 2 or 3 inches, then raise the cylinder up and pull the rod out.

Repeat this several times, until the air is worked out of the cylinder. And replace the rear mounting bolt and the connecting rod to the valve handle.



## M6 reed switch adjustment and replacement

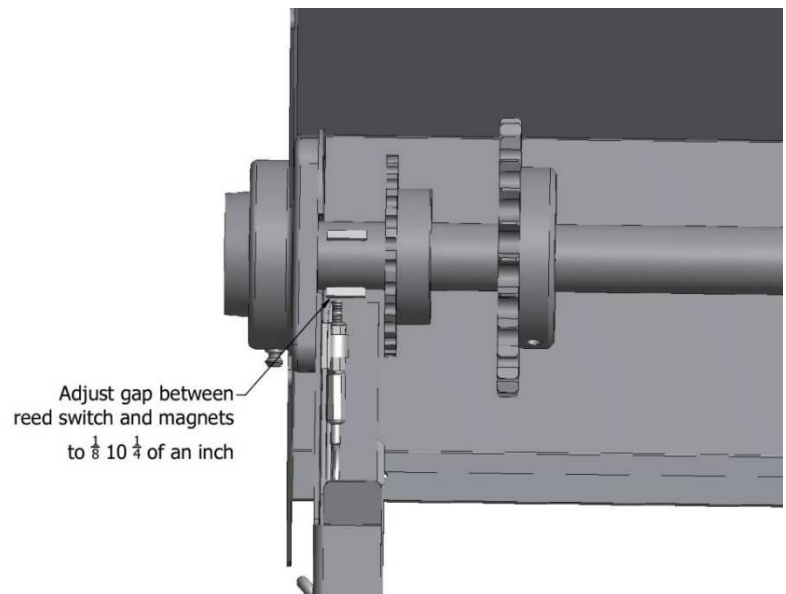
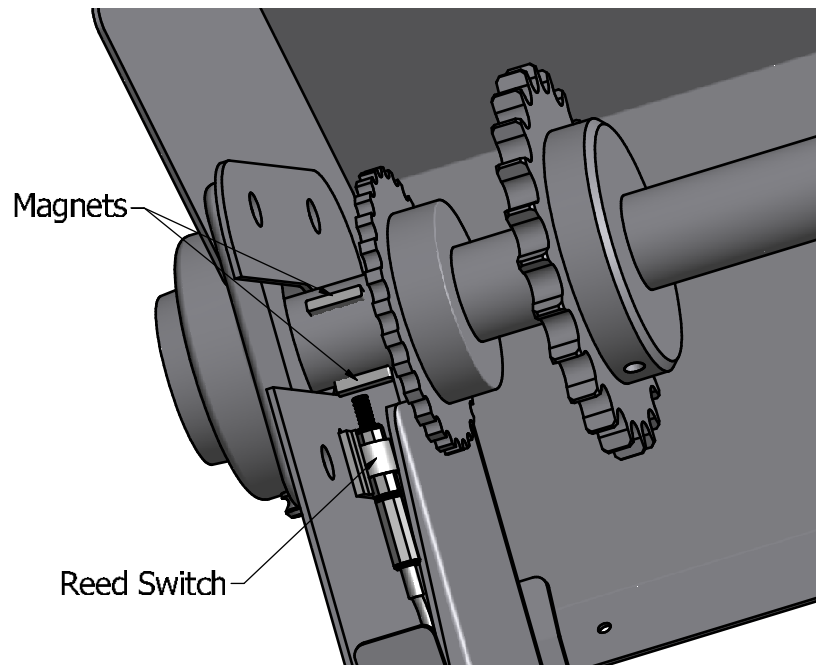
### Parts and Tools Needed:

1. 3/8" socket wrench
2. Cordless drill with phillips bit
3. Replacement reed switch

### Procedure:

1. Remove 1 or 2 panels
2. Rotate panel gap to reveal sprocket and sensor assembly on right side of machine.
3. Inspect sprocket and make sure that three magnets are present, they should be equally spaced around the shaft with the flat face of the magnet facing outwards
4. Inspect reed switch position, the tip should be 1/8 to 1/4 inch from magnets
5. If either the magnets or reed switch are out of alignment make the adjustment and test the sensor by rotating the wall
6. If the reed switch needs to be replaced continue further
7. Push sensor out of plastic clip and unplug from wire.
8. Plug new sensor in and make sure that it is adjusted 1/8 to 1/4 inch from the face of the magnets.
9. Test the new switch by rotating the wall and replace panel(s) if successful

### Figures:



## Adjuster Cylinder Valve leak repair – M4 Pro or Laddermill

### Parts and Tools Needed:

1. ½" socket wrench
2. 14mm or 3/8" wrench
3. Allen key set (imperial)

### Procedure:

1. If the cylinder loses fluid, it is usually at the stem of the valve. You will see dripping from under the valve handle. To repair, the cylinder does not have to be removed.
2. First step: remove the valve handle (M4) or cable wheel (Laddermill) by removing the nut that is on the stem.
3. Note the nut that on the stem. This "packing nut" that will adjust a washer inside that seals and prevents leaks.
4. Tighten the packing nut firmly to tighten the washer (14mm/3/8") This should correct the leak.
5. If the cylinder has lost enough fluid to make it operate erratically, you should refill it. The fluid is a mixture of non-toxic antifreeze and water (25% antifreeze). This is an antifreeze that is commonly used in home hot-water furnaces and is easily available at where plumbing supplies are sold.
6. To refill, take out the plug at the top of the reservoir (use a large wrench to prevent the reservoir from turning and an allen wrench to take out the plug). Refill the reservoir using a small funnel. Run the angle back and forth slowly to get out air bubbles and refill until the bubbles stop.
7. The level should be about ½" (2cm) from the top of the reservoir when you are finished.

### Figures:



## Service Instructions

### Lubricating the M4 Pro T

The Treadwall panels slide down channels that should be lubricated bi annually, or more often if operation becomes sluggish.

1. White lithium grease in a spray can is commonly available at auto supply and hardware stores. Make sure your purchase includes the thin straw-like extension for the nozzle.
2. There are four channels to be lubricated. Two in the front and two in the back. Each channel has a rear surface and a front surface.
3. To lubricate the rear surfaces (fig 1), put the nozzle into the gap between two panels and squirt a little bit of grease onto the rear channel surface. Do this for all the gaps in the front and rear of the Treadwall (about 70 gaps total).
4. To lubricate the front surfaces (fig 2), put the nozzle in between the panel and the front of the channel and squirt a little grease at the top and bottom corners of the panel. Do this for each panel – front and rear.
5. Don't over-do the greasing. Just little squirt is plenty.

Fig 1

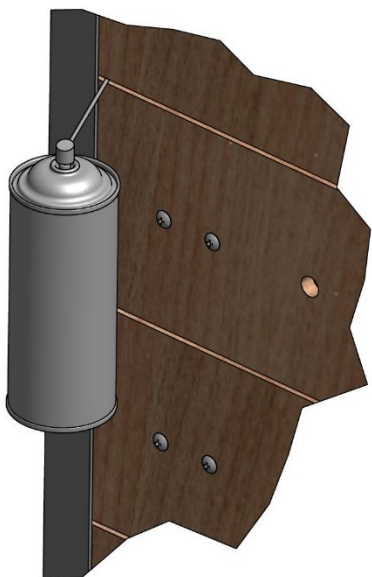
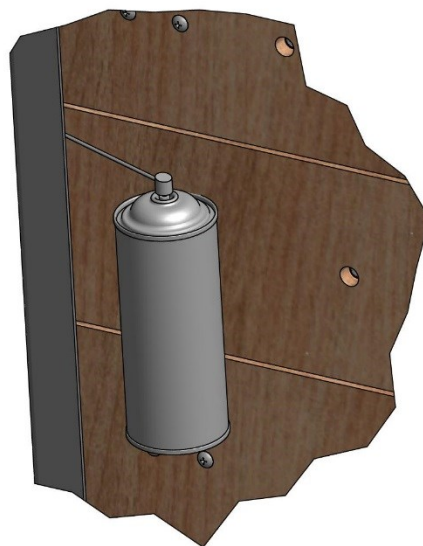


Fig 2



## **Treadwall® Service Sheet**

### **PAINTING YOUR TREADWALL®**

The Treadwall's come in a number of color configurations. They are designed to be easily touched up with locally available paint or paint available from Brewer's Ledge.

#### **Panels:**

Charcoal: Mix of ½ " Battleship Gray" – ½ "Black"  
(M6) Latex Acrylic Urethane floor enamel.  
Water based, applied with roller  
Use any matching latex for touchup, no need to be urethane reinforced  
Full repaint: gallon containers can be ordered from Brewer's Ledge

#### **Frames:**

White: Use any compatible white enamel  
(PE) Toyota auto #3223 is very good

Silver:  
(M6/Kore/M4) Toyota Galaxy Silver metal 12 WA519F

Beige: Use any compatible beige enamel  
(M4 older) Touch-up bottles available from Brewer's Ledge

See Treadwall Accessory Sheet for prices

## MAINTENANCE SCHEDULE

<b>ITEM</b>	<b>FREQUENCY</b>	<b>COMMENTS</b>
Adjust drive chain	After 2 weeks, then every 6 months	See page 2 Chain stretches during initial break-in period.
Clean climbing surface	Daily, or as needed	
Clean holds and alter climbing routes.	10 at a time every 2 weeks to one month as needed.	See page 1 Heavy usage = more cleaning Having 10 extra holds simplifies this process.
Wax panel ends	As needed – 6 months to 1 year.	Needed less frequently with time and use.
Paint climbing surface	Yearly, as needed	See page 1



## TREADWALL® LIMITED WARRANTY - All Models

### 1. WHO IS COVERED?

The original purchaser of any model Treadwall ("Original Purchaser") may only enforce this warranty.

### 2. ORIGINAL PURCHASER OBLIGATIONS

- a. The Original Purchaser assumes full responsibility that this Treadwall 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 the Treadwall is 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 its Treadwall that under normal maintenance the Treadwall will be free from any defect in materials or workmanship.

#### For M4, M6, Kore Commercial models:

##### Structural Steel Frames and Welds:

Ten years - parts and labor and freight.

##### All other components except cords, floor mats and vinyl products:

One year - parts, labor, and freight.

##### Cords, side covers, floor mats:

Ninety days - parts, labor, and freight.

#### For KORE Home/Residential models:

##### Structural Steel Frames and Welds:

One year - parts and freight.

##### All other components except cords, floor mats and vinyl products:

One year - parts and freight.

##### Side covers, floor mats:

Ninety days - parts, labor, and freight.

### 4. WHEN DOES THE WARRANTY BEGIN?

Warranty begins from date of delivery to Original Purchaser or date of installation in the case of factory assembly. In the case of either Demonstration or Trial Agreement and related purchase, the warranty begins from the date of the original delivery.

### 5. WHAT IS NOT COVERED

- a. Normal wear and tear is excluded from this warranty. No warranty shall be provided in the event the Treadwall is modified by original purchaser, for parts not approved by Brewer's Ledge Inc., or for warranty-related service other than by personnel authorized by Brewer's Ledge Inc.
- b. Damage incurred by negligence during movement, assembly, or breakdown of the Treadwall by the Original Purchaser or personnel contracted by the Original Purchaser is excluded from this warranty. The sale of special tools and instructional materials to the Original Purchaser and any training of the Original Purchaser's staff by Brewer's Ledge Inc. related to the movement, assembly and break-down of the Treadwall 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 Treadwall equipment to Original Purchaser.

### 8. STATE LAW RIGHTS

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

Copyright 2007, Brewer's Ledge Inc.





# Installation Manual for M4 Pro-t Treadwall® rotating walls



**Brewer Fitness, 87 York Ave., Randolph, MA 02368 USA**

**781-961-5200 / [sales@brewerfitness.com](mailto:sales@brewerfitness.com)**

Rev 9-16-2018

## **Overview:**

This is the installation guide to the Treadwall® M4 Pro-t and M4 Pro V-t rotating walls. These are new units and have many engineering upgrades over the M4 Pro and M4 Pro V units we have made for many years.

The following guide is in two formats: a digital guide that has the images included and a text only guide that comes in the printed owner's manual that accompanies each unit from the factory.

This guide assumes basic mechanical experience, similar to maintaining a bicycle.

### **Before Assembly:**

The most important first step is to consider carefully the location and position of your Treadwall. A location that is too visible - for example in the direct focus of members using CV equipment or walking in the entrance - may discourage people from climbing. Often simply rotating the Treadwall slightly will dramatically improve its usage.

The ground should be flat and level and the area directly around the Treadwall should be clear of any hazards for the climber or trainer. The Treadwall fits well in the cardio area of a gym.

### **Tools required and set up:**

In addition to the tool list you will need a helper and two ladders. If you are tight on space begin by assembling the A-frames and then bring in the side channels and shroud and place them directly onto the machine. Panels and stiffeners can be done also and brought in.

Assembly will take 6-8 hours, please read the entire assembly procedure prior to starting the install. If you have questions, please contact us at 1-781-961-5200 (9-5 EST).

#### **WRENCHES:**

- |                                   |                                            |
|-----------------------------------|--------------------------------------------|
| 1 – 9/16" open end wrench         | 1 – 3/4" open end wrench                   |
| 1 – small 3/8" sockets for panels | 1 – 9/16" socket                           |
| 1 – 3/8" socket (panels)          | 1 – socket wrench                          |
| 1 – Allen sets, SAE and metric    | 1 – Adjustable Crescent (universal) wrench |

#### **SCREWDRIVERS:**

- 1 – Set of screwdrivers
- 1 – Cordless drill with Philips #2 driver bits for drill

#### **PLIERS & Misc:**

- |                                                                 |                                             |
|-----------------------------------------------------------------|---------------------------------------------|
| 1 – vice grips (Optional)                                       | 2 – adjustable straps at least 10 feet long |
| 1 – wiring pliers with flat ends (for working with chain links) | 1 – Rubber Mallet                           |

# **WARNING - Read all instructions before assembling and using the Treadwall®**

## **For Assembly:**

Be careful when moving and installing larger Treadwall components, as they might require effort to lift and attach. Some steps require two individuals. Have a second person assist you during assembly and make sure to have two ladders on hand.

## **For General Use:**

Carefully read and understand the Treadwall Owner's Manual. Provide a general overview of the basic operations and usage to new Treadwall users. Do not place other equipment or any items in the fall zone or onto the floor mat of the Treadwall.

### **(1) Step one:**

Lay out all the parts and inspect them: report any damage or missing parts. Note there is a time frame (15 days after receipt of the unit) to report any damage or missing parts.



### **(2) Step two:**

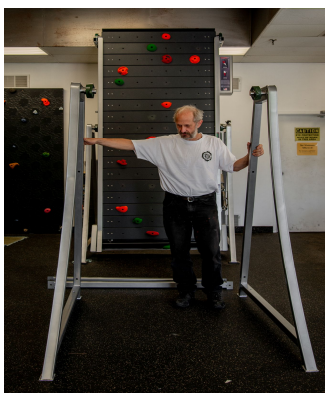
Open Hardware box and lay out the bags and hardware



### **(3) Step three:**

Set up main frames: there is a left and right side frame — (shafts and bearings point inwards). Install one of the two horizontals without the welded bracket on the bottom first and tighten firmly: this will hold up the frames.

Bag M4t-1 for all frame bolts



(4) Step four

Install the remaining two horizontals. The top horizontal has a welded bracket. There is X-Bracing that goes on the outside of the horizontals that will be attached using the same bolts. Attach the two longer braces to the top horizontal and the shorter braces at the bottom. Attach the X-bracing together using the turnbuckles and tighten as needed to level the frame.

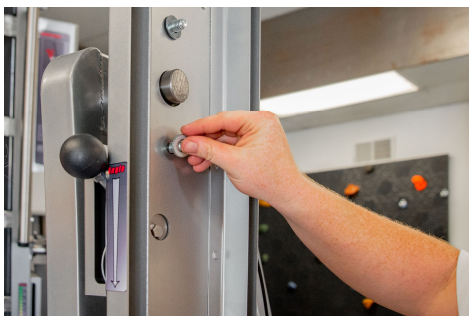


(5) Step five

The left channel has the angle adjuster attached to it: one person should carefully hold the adjuster cylinder while you hang the channel. Secure channel to the frame using the provided bolts: Keep hand tight (M4t-2). Then hang the angle adjuster on the top horizontal. This will keep it out of the way during the rest of the assembly until needed.

The channel should be held in place while the other person hangs the cylinder.

Bag M4T-2 Frame Bearing hardware



(6) Step six

Hang the right channel (Has motor box and speed control) and lean it against the back horizontal temporarily. Make sure to hand tighten only.



(7) Step seven

There are three U-Brackets: one has a welded bracket—this will go on the bottom. With one person holding the channels, attach one of the plain U-Brackets to the middle position. Bolts hand tight only.

Bag M4T-3



(8) Step eight

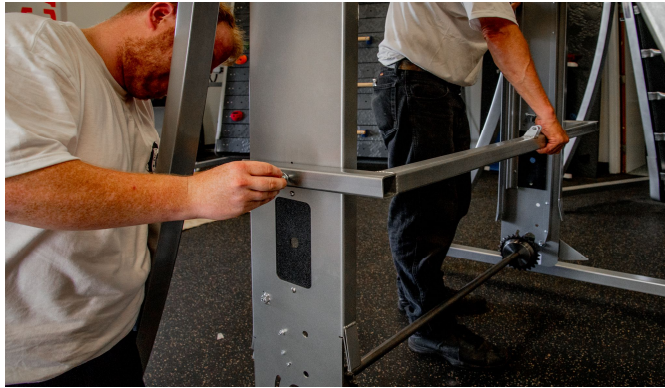
The bottom shaft has one loose sprocket (no set screw: intentional). Place either side. Getting shaft into the bearing may take some light tapping with rubber mallet—alignment is crucial. Make sure the bearing set-screws are backed out before inserting. Insert shaft until the stop collar is against bearings.

Retighten set-screws.



(9) Step nine

Mount bottom U-Bracket—note the welded bracket goes up. Hand tight.



(10) Step ten

Carefully lean both channels back and tie off into a horizontal position with two straps. This will enable assembly without a ladder. (if necessary, the following steps can be done with the wall vertical with two good ladders).



(11) Step eleven

Install the final and top U-Bracket. (top shaft shown in image—this goes on afterwards). Hand tight only.

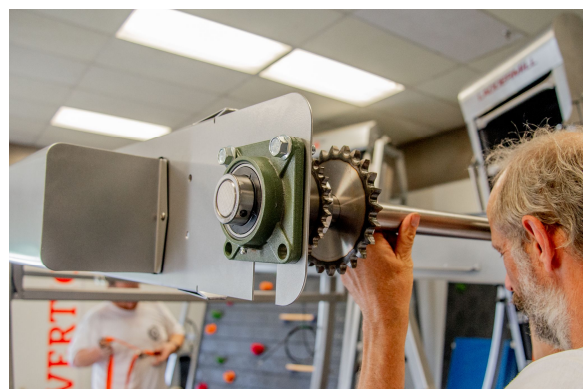


(12) Step twelve

Mount the top shaft: the side with the paired sprockets MUST go to the right side above the hydraulic box.

There are four bolts each side: install loosely all but the back top bolt (leave out for now). Do not tighten.

Bag TW6-6





(13) Step thirteen

Take the power wire from the top of the right frame (there is extra in the frame) and run it into the channel: there is a split rubber grommet that is taken off and re-inserted around the wire and pushed back into the channel. Run the male plug up the inside of the channel and plug into the female plug. Tuck loose wire into clips, pull any wire slack back into right frame.

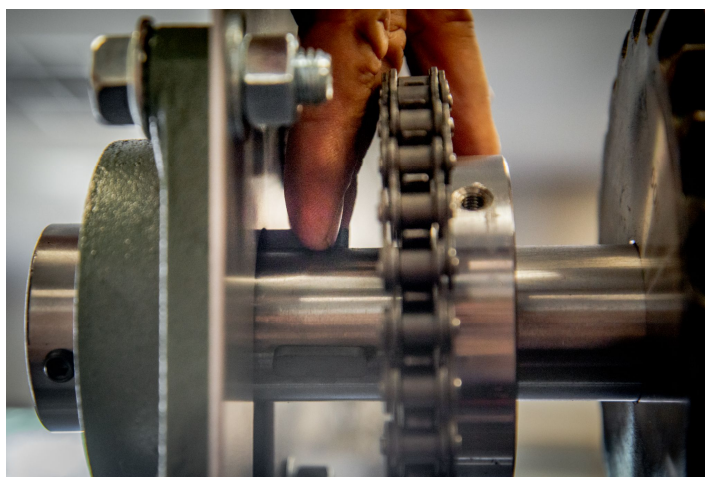


(14) Step fourteen

Place the three magnets on the shaft on the label attached (not in image): make sure to leave space between the magnets and the channel. Make sure sensor (on channel already) is @ 1/8" (.33 cm) from the magnets as they pass over

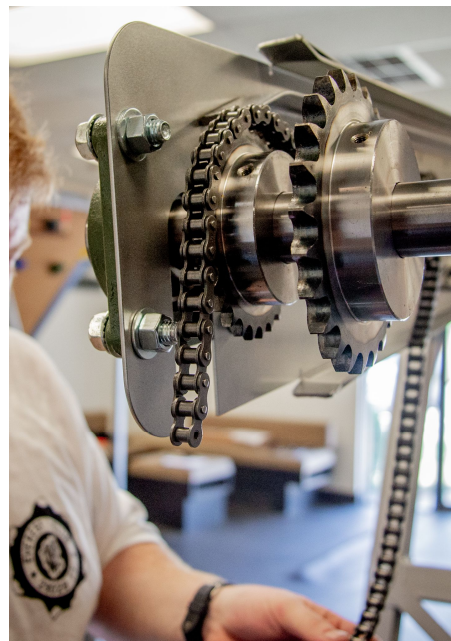
(15) Step fifteen

Remove the hydraulic box cover. Make sure the pump adjuster bolt is turned up out of the way.



(16) Step sixteen

Slide the hyd. Assembly up and attach the drive chain around the top sprocket and pump sprocket, make sure master link is fully re-attached. Re-tighten the pump adjuster bolt to take the slack out of the chain. Do not over tighten—a little play is good.



## M6 reed switch adjustment and replacement

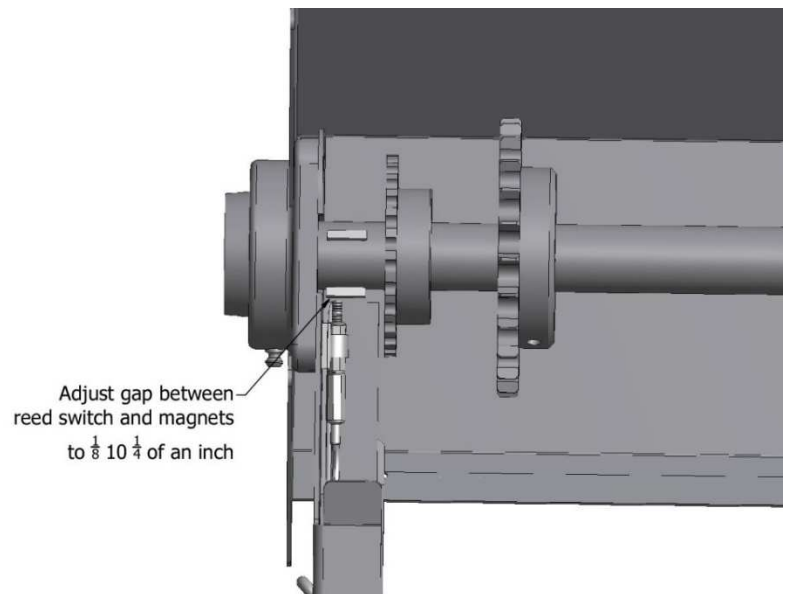
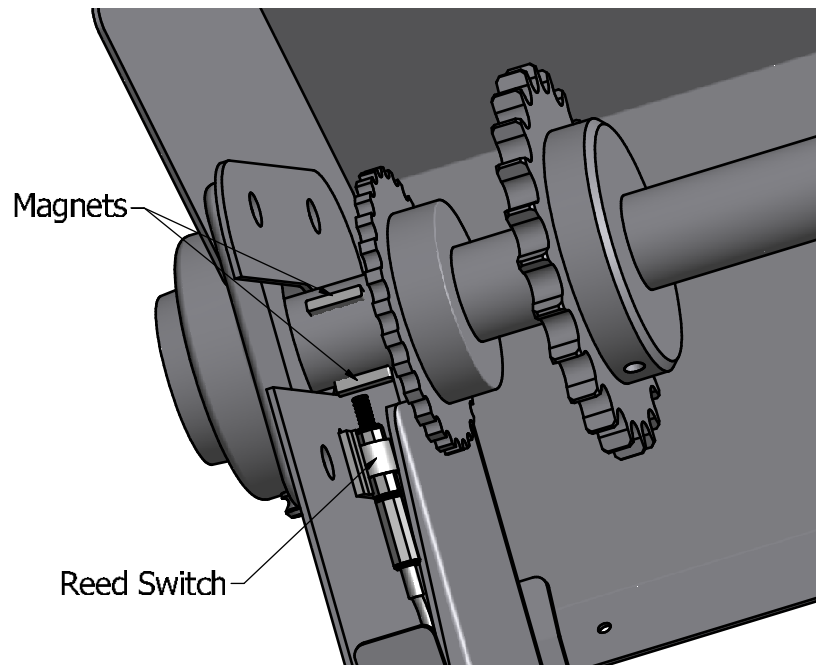
### Parts and Tools Needed:

1. 3/8" socket wrench
2. Cordless drill with phillips bit
3. Replacement reed switch

### Procedure:

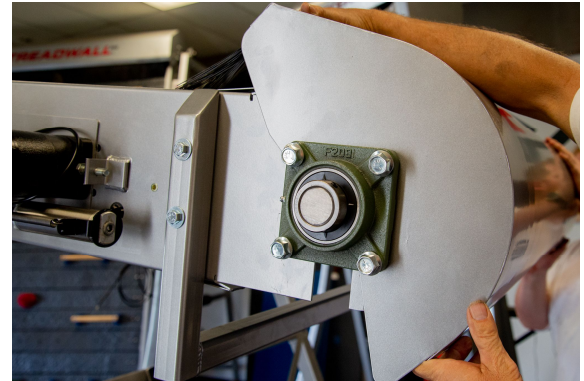
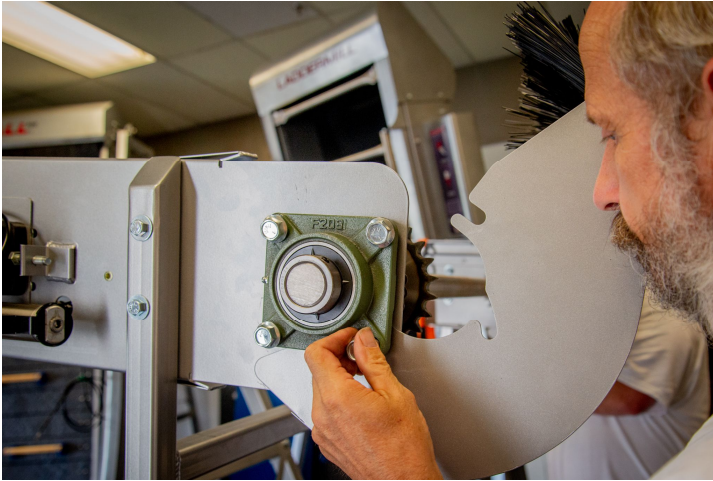
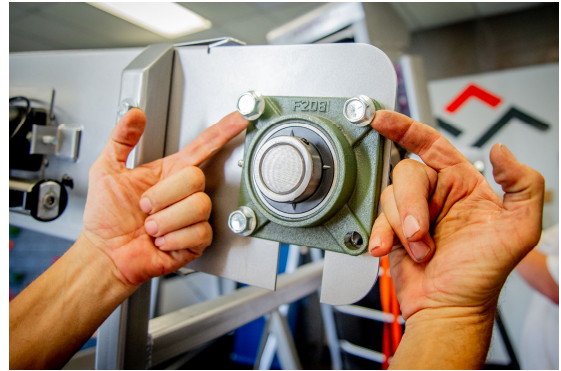
1. Remove 1 or 2 panels
2. Rotate panel gap to reveal sprocket and sensor assembly on right side of machine.
3. Inspect sprocket and make sure that three magnets are present, they should be equally spaced around the shaft with the flat face of the magnet facing outwards
4. Inspect reed switch position, the tip should be 1/8 to 1/4 inch from magnets
5. If either the magnets or reed switch are out of alignment make the adjustment and test the sensor by rotating the wall
6. If the reed switch needs to be replaced continue further
7. Push sensor out of plastic clip and unplug from wire.
8. Plug new sensor in and make sure that it is adjusted 1/8 to 1/4 inch from the face of the magnets.
9. Test the new switch by rotating the wall and replace panel(s) if successful

### Figures:



(17) Step seventeen

Mount the shroud: first make sur the two front bolts are loose, then insert the shroud under the bearings and place the last bolts (top, rear). Then pivot the shroud to the front and under the two loose bolts. Tighten all.



(18) Step eighteen

The main chains come in 2 parts: see directions. Hang the top section making sure the tabs are aligned on the sprocket (side to side) and the ends have the same number of links beyond the last tab (one is short, one end is long). Make sure they are the same on each side.



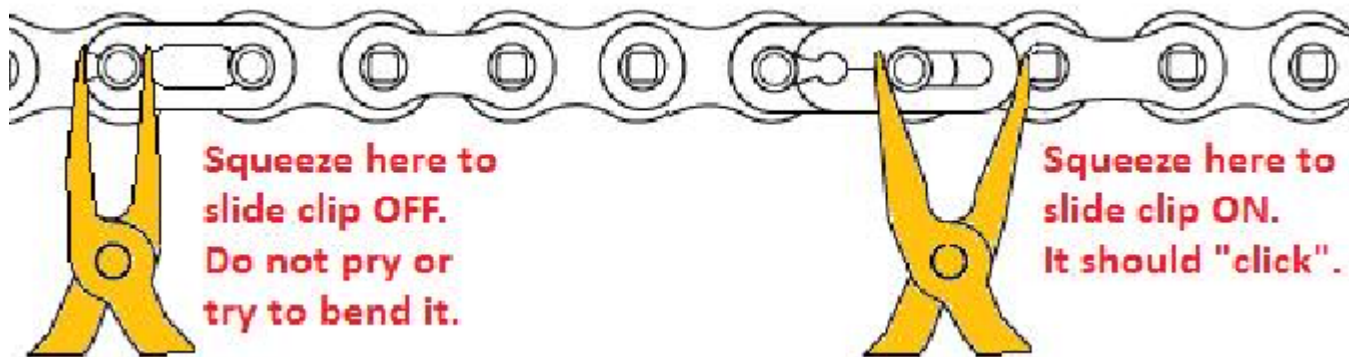
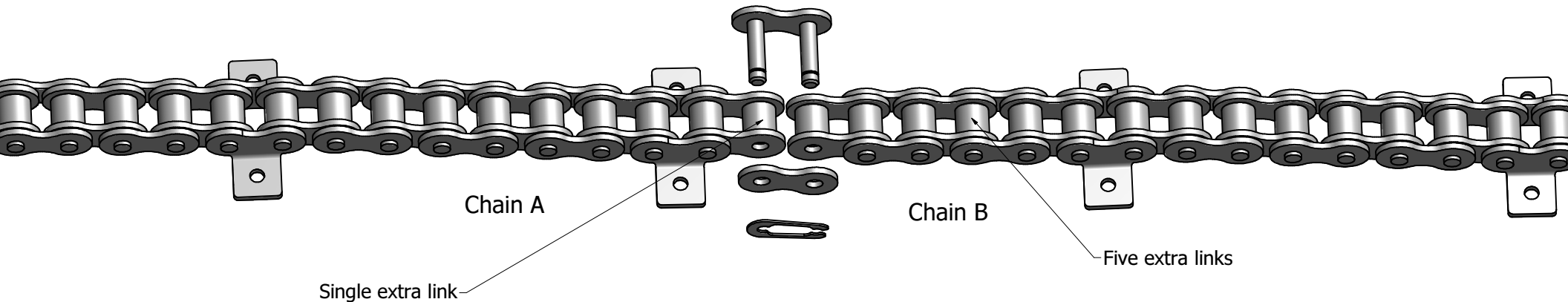
## ASSEMBLING MAIN CHAINS

Each Treadwall main chain come in two boxes that must be assembled to a full length chain using a masterlink.

If the boxes are marked "short" and "long", use one short and one long for each chain. If the boxes are unmarked, use any two boxes to make each chain.

Note that the ends of the chains are different as shown below. Attach the end of chain A with a single extra link to the end of chain B that has five links. This will insure that the spacing between the chain tabs is correct and uniform.

Also, make sure that the tabs are all facing the same direction as in the picture.  
The masterlinks are located at one end of each length of chain.



Brewer's Ledge Inc.  
800-707-9616  
www.treadwall.com

CHAIN ASSEMBLY DRAWING REV .1  
6-11-14

(19) Step nineteen

Carefully rotate wall back to vertical.



(20) Step twenty

Attach cylinder to bottom U-Bracket: this will hold wall in place.

(21) Step twenty one

Mount back guard. Note the guard is oriented with angled edge down. Bag TW-4



(22) Step twenty two

Attach lower chains. Make sure the long ends go with the short ends, double check all the spacing is correct.



**Double check the tabs are aligned side-to-side horizontally.**

See arrow image to right. Take your time.



(23) Step twenty three

Attach the chain tensioners on each side with the short cord provided. The spring hooks over the back guard. You have to pull hard.



(24) Step twenty four

Mount the display on the top of the right frame (4 bolts) or on the side of the speed box (depends on unit). Plug in power and sensor wires in the back.

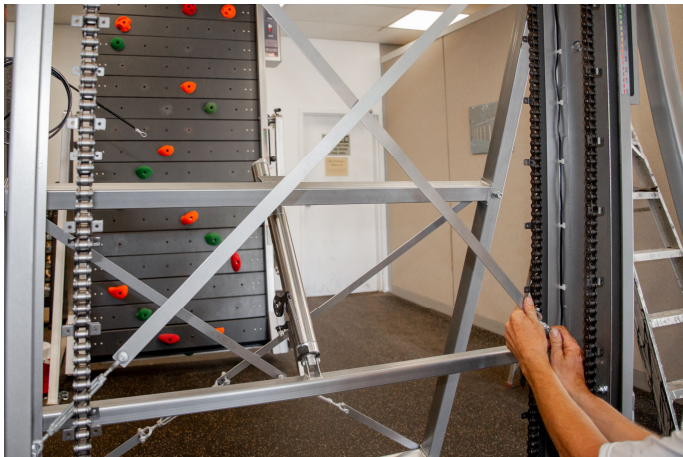


(25) Step twenty five

Plug in the transformer: make sure display lights. Slide speed lever to fast, push in auto stop actuator at bottom while pulling down on a chain and verify the chain is stopped. Display should start to count once a the chain move 2-3 feet.

(26) Step twenty six

Install the internal X-bracing. These bolt into the brackets inside the channels with the small turnbuckle at the bottom. Hand tighten for now.



(27) Step twenty seven

Go back and tighten all the bolts, frames, channels, etc. The bottom bearing bolts (2) and the bolts that hold on the hydraulic unit to the channel (4) **DO NOT GET TIGHTENED**. These need to move.



(28) Step twenty eight

Install stiffeners in the panels using the stiffener bolts. This can be done ahead of time if extra help is present. The easiest way is to place panel face down and gently press stiffener into the panel with your foot.



(29) Step twenty nine

Mount the first panel. Use 3/8" socket and #2 phillips driver bit. Do not drive the head of the bolt into the panel—set the drill to a more gentle setting.



(30) Step thirty

Speed lever to 10. Rotate the panel completely around at least twice: the loose sprocket on the bottom shaft will probably have to be tapped into alignment—this is normal. Make sure all is working and that the display is counting accurately .

(31) Step thirty one

Mount all the remaining panels except the last panel: make sure to alternate the panels end-for-end to vary the pattern. The last two panels are installed by sliding the panels in at the bottom. The last panel will remain off for now and will be installed using the access holes on the side.



(32) Step thirty two

Mount holds, Ladder line set if used, install mat. Check all bolts, auto stop, display, etc. before mounting the last panel. To mount the last panel remove the black access hole cover at the bottom of each channel and slide the panel up from the bottom, using the access hole to hold the nuts behind while installing. Replace the access covers and hydraulic box cover. After testing the machine, make sure the manual goes the owner.

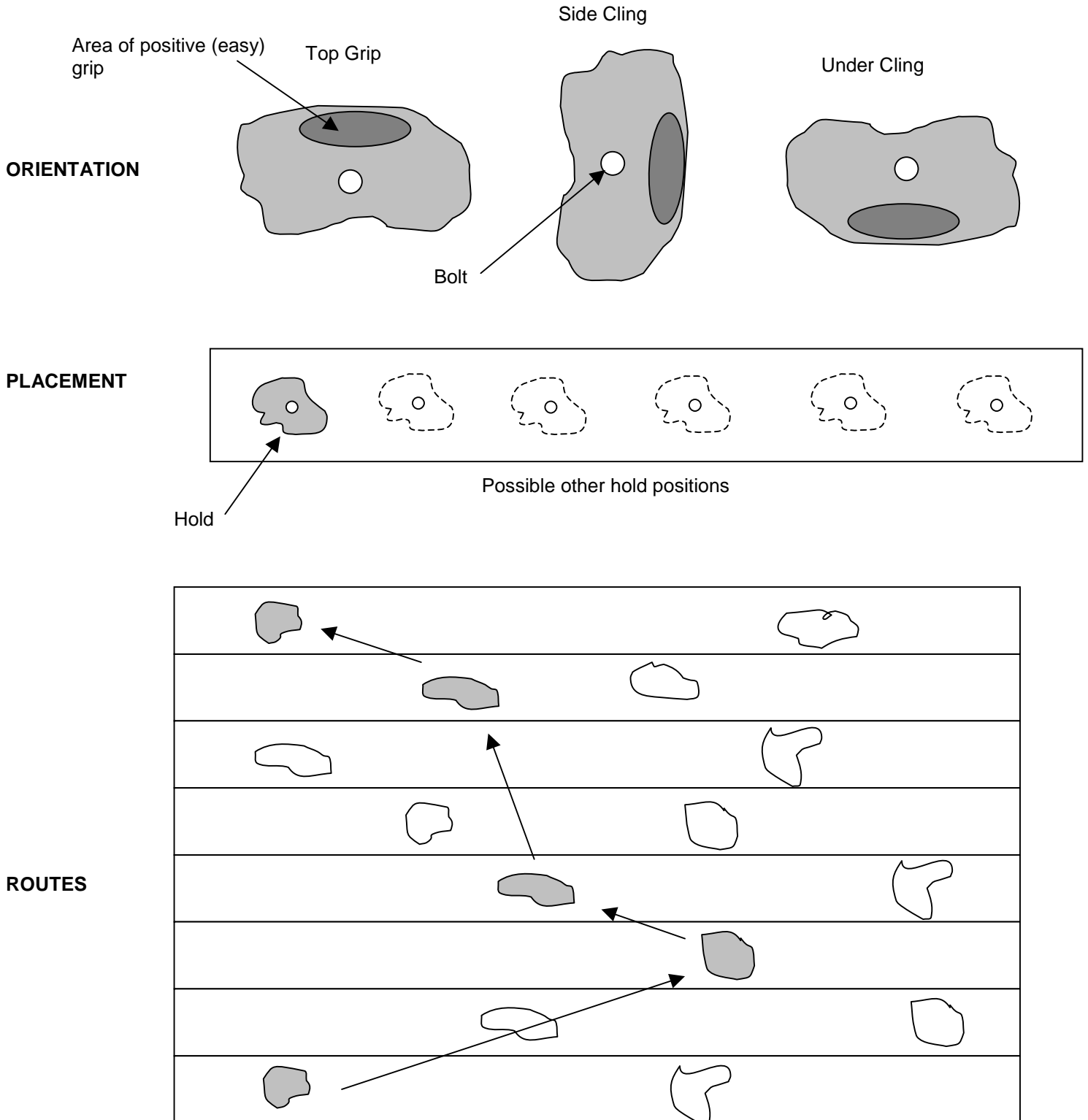
**Contact Brewer Fitness if any questions: 781-961-5200 (New York City time zone.) sales@brewerfitness.com**





# Appendix A - ROUTE SETTING AND HOLDS

The climbing holds provided with the Treadwall are universal to all climbing walls. They come in various colors, textures and materials can be set up in any number of ways by orientation or placement to provide new and different routes.



**There are two types of holds;** molded Resin and natural rock holds. Molded holds come in various colors and are made from a textured plastic resin. Natural rock holds are granite or sandstone, and no two are alike. In the normal Treadwall assortment about half of the molded holds are red, and the balance are various other colors. A small number of rock holds complete the set.

### ***Setting patterns***

Start with one color. For example, use red holds spreading them out over the length and width of the wall. Test climb while bolting them on to make sure that the workout will be reasonable. Important: Each hold must be completely on its panel. Do not allow any holds to overlap the space between two panels.

To start, orient most holds with the positive grip upward (easiest grip), but look for places where variety can be added. Turning some of the holds will suggest a side-grip orientation. Turning others up-side-down will provide an interesting "undercling" move.

After establishing an easy single color route, fill in with the other holds. Again, most of the holds should be placed with the easy side up, and spread out over the whole width. Avoid clustering the holds in adjacent holes. Avoid clustering too many of one color or type in the same area of the wall.

With a few holds left, climb your route a couple of times to find any hard spots. Try climbing up just the left side, and just the right. Try elimination routes (avoid using reds and naturals, for example, or use just purples) to see if they are possible. Use the last holds to fill in any obvious gaps.

### ***Route setting guidelines***

Emphasize non-repetitive movement and reaching.

Create side-to-side movement.

Always keep one really easy route.

Use fewer big holds rather than many smaller holds.

Plan routes with a purpose - flexibility, underclings, footwork, etc.

### ***Programming tips***

To change the route it is not necessary to take all the holds off. It is amazing how the wall will change if you move a few holds around or even if you just rotate some of the bigger holds.

Establish a schedule for changing the routes.

Try to introduce new holds on a regular basis. This can be done through Brewer's Ledge or a number of hold manufacturing companies. Some size restrictions apply - call Brewer's Ledge for details.

Publicize new routes. Use member's bulletin board to post changes.

Use members to help with route setting. Start a "climbing club" to create a sense of purpose and provide knowledgeable people to keep routes fresh.

### ***Purging the Hydraulic System:***

Sometimes when the Treadwall is first assembled, the control system runs a bit rough and noisy - almost a grinding sound - and the wall doesn't descend smoothly. This is due to air in the system that foams into the oil and causes cavitation in the pump. To purge the air, put the wall at the steepest angle, set the cardio dial at the fastest setting, and pull the wall around steadily for about 15 seconds. Let the wall sit for about 5 - 10 minutes, and do it again. If you do this about 3 times, the air will percolate up into the reservoir where it belongs, and the wall will run smoothly.

### ***Mat:***

The mat has four loops that attach it to the bottoms of the support frame. To place the mat, pry up each corner with a length of 2x4.

### ***Test climb:***

Test the finished Treadwall by climbing for at least 200 feet at various angles. Newly installed Treadwalls will usually run a bit rough because of air in the hydraulic system. When this air has left the oil - usually after a few climbing sessions - the resistance is much smoother. Other than this normal breaking-in, the wall should operate quietly without any binding or other impediments. Test the angle adjuster while climbing - it should work smoothly with little or no "bounce" in the cylinder.

The drive chain should be checked one more time (it stretches at first), and should be re-checked after a couple of weeks of service. *Make sure someone on-site knows how to adjust this chain.*

Check holds for tightness and re-tighten. Adjust any holds that seem awkward or out-of-place.





