

**PRECOR®**



# Owner's Manual

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Discovery Plate Loaded™ Line



# Important Safety Guidelines for Owners

Follow these guidelines to maintain proper working condition of the equipment:

**Important:** Do not modify the equipment or any of its parts, or permanently remove any part from the equipment. Do not use accessory attachments that are not recommended by Precor, as such attachments might cause injuries.

- Regular maintenance must be performed by qualified technicians.
- Make sure that trainers, facility personnel, and maintenance technicians understand how to use the equipment, know important safety guidelines, and can recognize potential problems such as a cracked weld.
- Strength training requires significant focus by the facility and its staff to maintain the quality of the fitness environment. If possible, the facility should provide direct supervision of the fitness equipment at all times by people knowledgeable about the safe operation of the equipment and trained to recognize potential problems.
- If any facility personnel witness unsafe use of the equipment, the staff member should address the user directly, to demonstrate the proper technique, and review with the users the *Important Safety Information for Users*. Precor recommends posting a copy of the *Important Safety Information for Users* near the equipment in a prominent location.
- Make sure the equipment is stable and placed on a solid surface. The equipment is designed to be freestanding; however, it can be bolted to the floor for extra stability. Precor highly recommends that the equipment be bolted to the floor to reduce the risk of the equipment toppling due to improper use. Since floor construction varies, please consult a professional building engineer for proper fastening.

- Locate the equipment at least 40 inches (1 meter) away from walls or furniture on either side of the equipment, and 40 inches (1 meter) away from objects behind the equipment.
- Check the equipment thoroughly based on the recommended inspection schedules outlined in this manual, including daily, weekly, monthly, and annual checks.
- Place an “out-of-order” sign on the equipment during maintenance of the equipment or the surrounding area, and make sure the facility’s personnel know not to allow anyone to use the equipment until it has been inspected and works properly. If a piece of equipment needs service, keep it out of use until repaired.
- Do not attempt to free any jammed assemblies alone as this may cause injury. With the help of another person, carefully return the mechanism to its proper resting position.
- Do not place the equipment outdoors or on wet surfaces.

## Safety Approval

Precor commercial strength equipment is designed and tested according to EN 957-1/2 standards.

# Important Safety Information for Users

Before beginning any fitness program, you should obtain a complete physical examination from your physician.

French equivalent of the preceding paragraph, for the Canadian market: *Il est conseillé de subir un examen médical complet avant d'entreprendre tout programme d'exercice. Si vous avez des étourdissements ou des faiblesses, arrêtez les exercices immédiatement.*

When using exercise equipment, you should always take basic precautions, including the following:

- If you do not understand how to operate a piece of equipment, ask someone from the facility such as a trainer to demonstrate how to use it and explain any safety instructions.
- Do not allow children on or near the equipment. Do not leave children unsupervised around the equipment.
- Use the equipment only for its intended purpose. Do not use accessory attachments that are not recommended by the manufacturer, as such attachments may cause injuries.
- Wear proper exercise clothing and shoes for your workout—no loose clothing.
- **Do not overexert yourself or work to exhaustion.** Use reasonable judgment when working with weights. Avoid using excessive weight, which may cause injury.
- If you feel pain or abnormal symptoms, stop exercising immediately and consult your physician.
- Keep head, limbs, fingers, and hair clear of all moving parts while the equipment is in use. Keep hands clear of racking pegs.

- Never drop or insert objects into any opening in the equipment.
- Always check the equipment before using it. If you spot a potential problem, contact someone in the facility immediately. Do not use the equipment until the facility has verified that the equipment is working properly. Do not attempt to fix broken or jammed equipment.
- Do not use the equipment outdoors or on wet surfaces.
- Do not use the equipment if an "out of order" sign has been placed on it.
- Read all posted instructions, including all safety instructions and warnings.

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# Before You Begin

Precor recommends implementing a thorough maintenance program that incorporates regular safety inspections by qualified maintenance technicians as outlined in this manual.

This manual explains how to maintain the Precor Discovery Plate Loaded line of commercial strength equipment. It provides information about items that need to be inspected and maintained on a daily, weekly, and monthly basis. You should perform those tasks that are appropriate for the equipment you are maintaining and skip those tasks that do not apply.

This manual covers the general maintenance procedures that you can perform in the fitness facility. However, if the equipment requires service beyond the maintenance procedures covered in this manual, refer to *Obtaining Service*.

**Important:** Always purchase replacement parts and hardware from Precor. Many parts are tested and manufactured specifically for Precor commercial strength equipment. If you use parts not approved by Precor, you could void the Precor Limited Warranty. Use of parts not approved by Precor may cause injury.

## Recommended Tools

We recommend that you keep the following tools available to maintain the equipment:

- Complete combination box wrench set (common metric sizes)
- Complete socket set (common metric and SAE sizes)
- Complete hex key set (common metric sizes)
- 12-inch adjustable wrench
- Rubber mallet

## Obtaining Service

You should not attempt to service the strength equipment, except for the maintenance tasks described in this manual. If any items are missing, contact your dealer. If you need more information regarding customer support numbers or a list of Precor authorized service centers, visit the Precor website at [www.precor.com](http://www.precor.com).

If you have any questions regarding a piece of equipment, locate its serial number and contact Precor Customer Support. Precor uses the serial number to establish the model and year of the product. You can generally find the serial number underneath the seat support.

For future reference, you may want to write the serial numbers, model numbers, and dates of purchase of your Precor strength training equipment in the space provided below for easy reference.

Model #: \_\_\_\_\_ Serial #: \_\_\_\_\_

Date purchased: \_\_\_\_\_

Model #: \_\_\_\_\_ Serial #: \_\_\_\_\_

Date purchased: \_\_\_\_\_

Model #: \_\_\_\_\_ Serial #: \_\_\_\_\_

Date purchased: \_\_\_\_\_

Model #: \_\_\_\_\_ Serial #: \_\_\_\_\_

Date purchased: \_\_\_\_\_

# Maintaining Your Plate Loaded Equipment

Precor recommends implementing a thorough maintenance program that incorporates regular safety inspections by qualified maintenance technicians as outlined in this manual.

This manual covers the general maintenance procedures that you can perform in the fitness facility. However, if the equipment requires service beyond the maintenance procedures covered in this manual, contact Precor Customer Support.

Precor recommends that maintenance technicians thoroughly read and understand the safety guidelines and maintenance procedures covered in this manual.

**Important:** Always purchase replacement parts and hardware from Precor. Many parts are tested and manufactured specifically for Precor commercial strength equipment. If you use parts not approved by Precor, you could void the Precor Limited Warranty. Use of parts not approved by Precor may cause injury.

## Daily Maintenance

Perform the following tasks daily to maintain the equipment and keep it operating smoothly:

- Clean upholstery
- Inspect upholstery pads for wear
- Clean and inspect frames
- Check warning and instructional labels

## Clean Upholstery

To remove surface dirt and perspiration, spray upholstery daily with a mild soap and water solution. Spray upholstered surfaces lightly and wipe dry with a clean cloth.

**Important:** To clean the upholstery, do not use cleaning products that have any of these ingredients: solvents, alcohol, ammonia, or petroleum. Use a mild detergent-based cleaner instead.

## Inspect Upholstery Pads for Wear

Inspect pads for cracks in the upholstery, broken and loose stitching, loose staples, and loose mounting bolts. Replace pads as needed (refer to Obtaining Service to purchase new pads).

**Important:** Do not reupholster pads or use pads not approved by Precor.

## Clean and Inspect Frames

To remove grease and dirt, spray the frames daily with a mild soap and water solution. Wipe the equipment down with a damp cloth and dry completely. Be sure to wipe down both painted parts and chrome or plated parts. As you clean, inspect the frames for cracks, rust, or other damage. Make sure welds are solid and fasteners are properly secured.

To restore and maintain the luster of chrome parts, use a commercial chrome cleaner.

## Check Warning and Instructional Labels

Inspect warning and instructional labels daily to make sure that all the information can be clearly read. If any portion is not visible or part of the label is not adhered properly, replace that label immediately (refer to *Obtaining Service* for purchase information).

Spray labels as needed with a mild soap and water solution, and dry thoroughly with a soft cloth.

The following figure shows an example of an instructional placard assembly, which contains labels for the name of the equipment and the workout instructions.

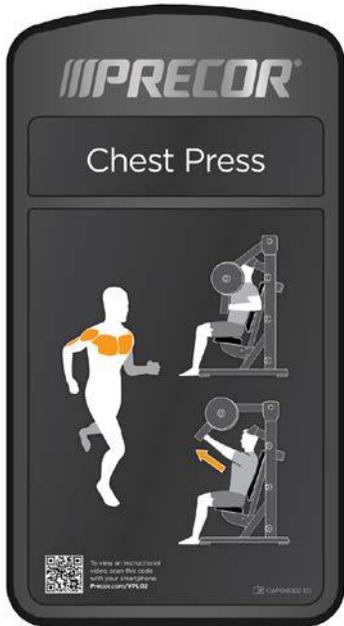


Figure 1: Example instructional placard

Precor products come equipped with a number of standard warning labels. The following two figures show sample warning labels you may see on the equipment depending on the model and product line:



Figure 2: Warning label indicating pinching hazard

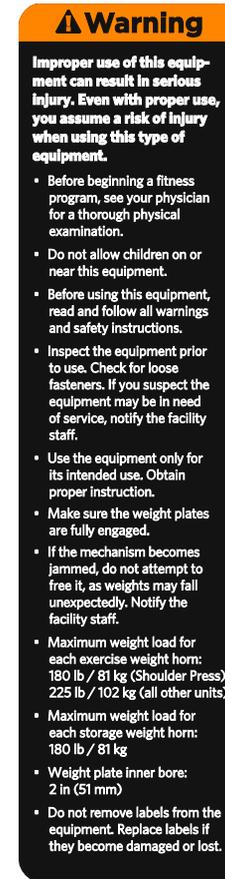


Figure 3: General warning label mounted on the equipment frame

## Weekly Maintenance

Condition and deep clean the upholstery weekly with a lanolin-based hand cleaner or upholstery cleaner.

**Important:** To clean the upholstery, do not use cleaning products that have any of these ingredients: solvents, alcohol, ammonia, or petroleum. Use a mild detergent-based cleaner instead.

## Monthly Maintenance

Perform the following tasks monthly to maintain the equipment and keep it operating smoothly:

- Inspect frames and movement arms
- Inspect the bearings and bushings
- Check and lubricate the seat adjustment
- Inspect all fasteners

### Inspect Frames and Movement Arms

Inspect frames and movement arms monthly for proper function and integrity. Inspect frames (particularly at the joints) for cracks, chipped paint, or rust. If any cracks are found, take the equipment out of service immediately and have a qualified maintenance technician repair it.

Touch up dings and chips with paint and replace any component at the first sign of wear. You can order touch-up paint from Precor by calling Customer Support.

To remove surface rust from the frame, rub lightly with a fine wet/dry sandpaper or fine steel wool. Finish with Precor touch-up paint if needed. Maintain paint luster with an application of a mild automotive wax product.

To maintain the powder coated, plated, and chrome parts, use a mild detergent-based cleaner for light dirt and grime removal. For removing heavier dirt and grease and for polishing, use a good automotive polish. For scuffs and marks that are not removed by the above methods, use a fine-grit cleanser. Do not use solvents, lacquer thinner, acetone, or fingernail polish remover.

## Inspect the Bearings and Bushings

Each month, inspect the bearings and bushings for smooth operation. If bearings or bushings require replacement, please contact Customer Support.

**Important:** *Bushing and bearing quality and specifications vary considerably so please replace them with Precor approved hardware specifically engineered for the precise application. Failure to do so will void the Precor Limited Warranty.*

## Check and Lubricate the Seat Adjustment

The seat adjustment mechanism requires little maintenance. However, because seat safety is important to the safety of a workout, you should check the seat lever regularly to see if it sticks when used.

To test if the seat lever needs lubrication, elevate the seat slightly while pressing and releasing the lever. The lever should snap back out easily. If the lever sticks, lubricate its pivot pin with a Teflon<sup>®</sup> spray lubricant. Wipe off any excess lubricant with a cloth.

## Inspect All Fasteners

Fasteners can loosen with normal use. Inspect all nuts, bolts, screws, and other fasteners to make sure they are tight and installed correctly.

Be sure to check fasteners at bolted joints to make sure the connections are secure. If a fastener is loose but in good condition, retighten it. If you are concerned about the integrity of the fastener, remove it, clean the threads, and inspect it for any damage such as cracks, bad threads, corrosion, or rust. Reinstall the fastener if it appears to be in good condition. Otherwise, remove the equipment from service until a new fastener can be installed properly. You can order new fasteners from Customer Support.

**Important:** *Fastener quality and specifications vary considerably so please replace them with Precor approved fasteners specifically engineered for the precise application. Failure to do so will void the Precor Limited Warranty.*





Precor Incorporated  
20031 142nd Ave NE  
P.O. Box 7202  
Woodinville, WA USA 98072-4002  
1-800-347-4404

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**NOTICE:**

Precor is widely recognized for its innovative, award winning designs of exercise equipment. Precor aggressively seeks U.S. and foreign patents for both the mechanical construction and the visual aspects of its product design. Any party contemplating the use of Precor product designs is hereby forewarned that Precor considers the unauthorized appropriation of its proprietary rights to be a very serious matter. Precor will vigorously pursue all unauthorized appropriation of its proprietary rights.



Discovery Plate Loaded™ Line Owner's Manual  
CWP997777-111 rev C, en  
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# Discovery™ Series Plate Loaded Line Smith Machine Assembly Guide

The Smith Machine arrives partially assembled. Follow the instructions below to complete the assembly. If you need to disassemble the equipment to move it, please refer to the disassembly section of this guide before completing the assembly steps.

**WARNING** At least two people are required to assemble the equipment. DO NOT attempt assembly by yourself.

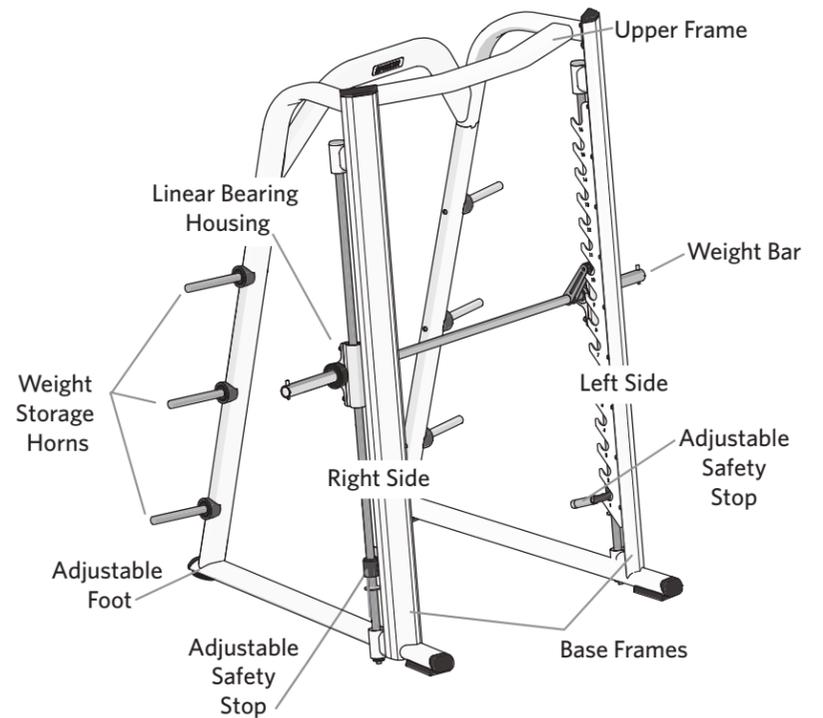
## Assembly Requirements

When assembling the equipment, we recommend you:

- Assemble the equipment close to where you plan to use it.
- Locate the equipment at least 40 inches (1 meter) away from walls or furniture on either side of the equipment, and 40 inches (1 meter) away from objects behind the equipment.
- Assemble the equipment on a solid, flat surface, so that it remains level and stable.

**Important** Before you wrench tighten a fastener, check that its head is flush with the surface of the product. If not, cross-threading may have occurred. Do not attempt to rework the assembly as more damage to the equipment will occur. Instead, contact Customer Support at [www.precor.com](http://www.precor.com).

- Do not move the equipment without assistance.



## Required Tools

- 19 mm open-end wrench
- 18 mm open-end wrench
- Torque wrench
- Rubber mallet
- 10 mm hex bit
- 6 mm hex bit
- 5 mm hex bit

## Hardware Kit

Component		Quantity
	Socket head cap screw (M12 × 30 mm)	6
	Socket head cap screw (M6 × 60 mm)	2
	Split washer (M12)	6
	End cap	1

Component		Quantity
	Storage horn bumper	6
	Weight bar assembly includes stop screw and retainer pin	1
	Weight storage horn	6

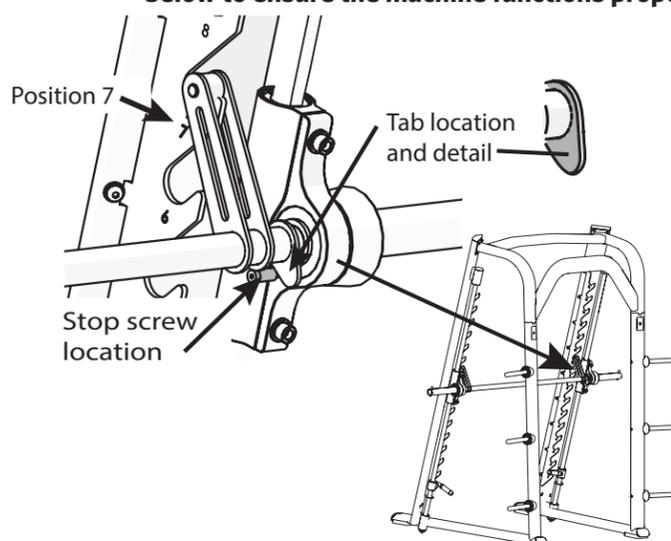
## Attaching the Weight Bar

The weight bar is packaged with the Smith Machine and must be attached before use.

### To attach the weight bar:

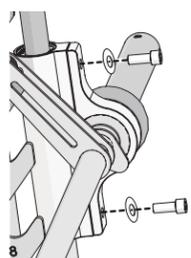
1. Latch safety stops in position 7 (see figure below).
2. Align the two brackets on the weight bar assembly with the linear bearing housings on the base frames.
3. Make sure the stop screw is on the *right hand side* of the equipment and below the bar.

**WARNING** The stop screw and tab must be in the position shown below to ensure the machine functions properly.



Position 7 and correct stop screw and tab locations

4. Secure each bracket in place using two M12 × 30 mm socket head cap screws and two M12 split washers. Alternate turning cap screws two turns each until brackets are flush.



Bracket installation

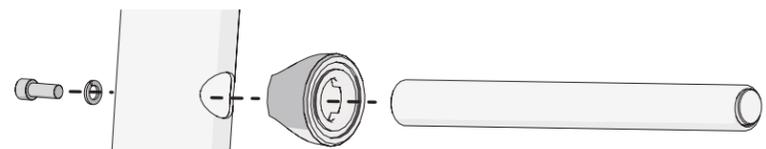
5. Tighten the fasteners to 806 inch-pounds (91 newton-meters) of torque.
6. Insert a retainer pin in the end of each weight bar.



Retainer pin installation

## Attaching the Weight Storage Horns

Repeat this procedure to attach all of the weight storage horns to the equipment.



Weight storage horn attachment

### To attach a weight storage horn:

1. Insert the weight horn into the hole in the equipment frame until it stops. If needed, use a rubber mallet to tap it gently into place.
2. Secure the weight horn using a M12 x 30 mm socket head cap screw and M12 split washer. Torque to 806 in-lb (91 N-m).
3. Push the storage horn bumper into the weight horn with its wide side facing outward. If needed, use a weight plate to push the bumper against the equipment frame.

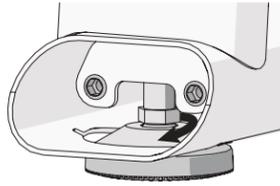
## Stabilizing the Equipment

Once you have assembled the Smith Machine, test its stability by pushing down on its corners. If the base frame rocks or wobbles, you need to adjust the foot to stabilize it.

### To stabilize the equipment:

1. Locate the round, adjustable foot at the lower back corner of the unit.
2. Using a 19 mm open-end wrench, turn the positioning bolt to the left or the right to level the unit.

If you want to move the adjustable foot ...	Then turn the bolt ...
Upward	To the right
Downward	To the left

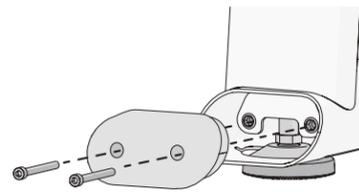


Adjustable foot

3. Continue to test the corners of the unit and readjust the foot as needed.

4. Re-tighten the jam nut with an 18 mm open-end wrench to 600 inch-pounds (67.79 newton-meters).

5. Insert the frame end cap and secure it using two M6 × 60 mm socket head cap screws. Tighten the screws to 10 inch-pounds (1.12 newton-meters) of torque.



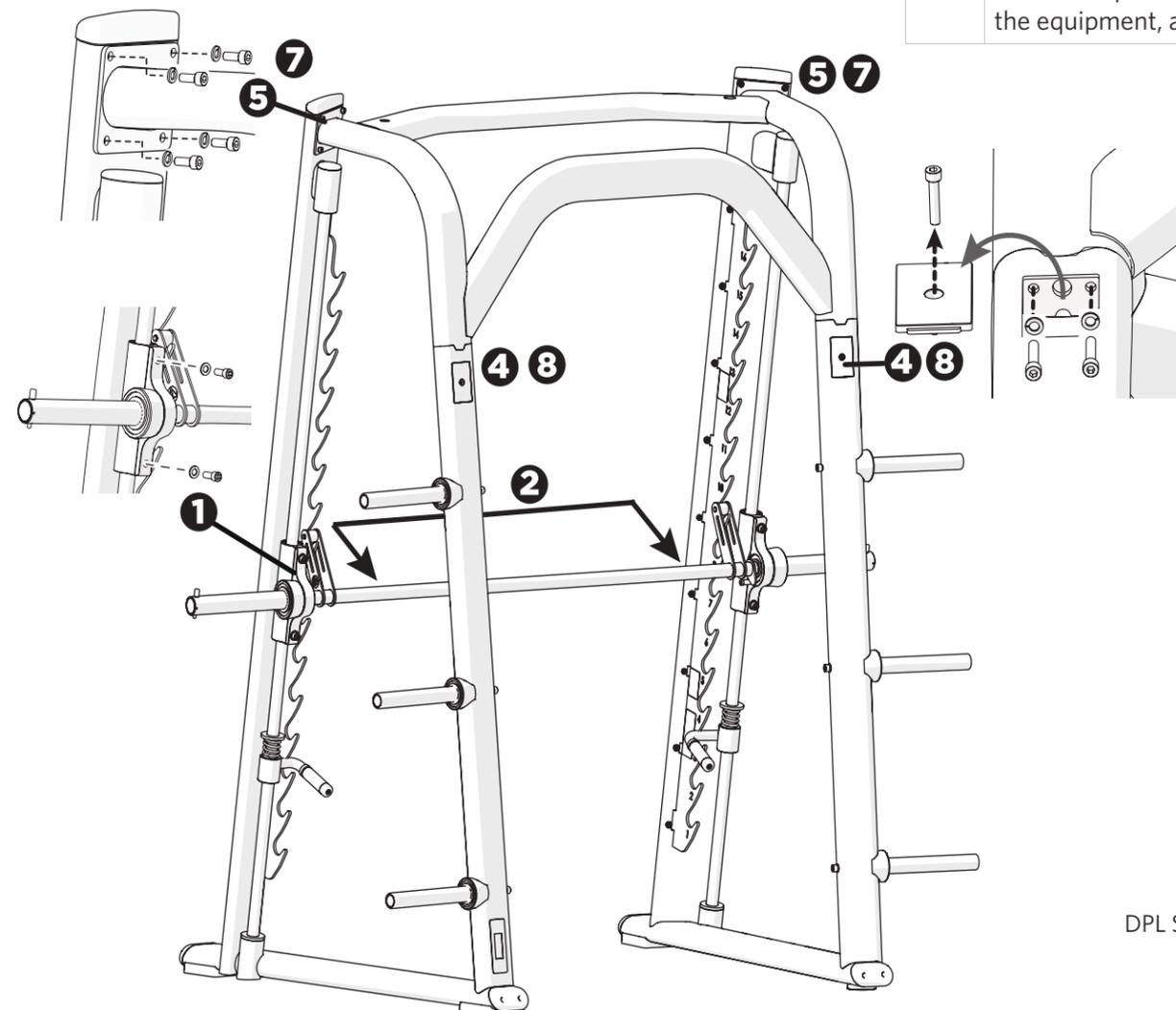
End cap Installation

## Disassembling the Smith Machine

If you need to move the Smith Machine, use the following procedure to disassemble and reassemble the equipment **before** attaching the weight bar and weight horns.

**WARNING** At least two people are required to assemble the equipment. **DO NOT** attempt this procedure by yourself.

Step	Procedure
1	Using a 10 mm hex bit, remove the bolts that attach the bar to the equipment.
2	Using a rubber mallet, tap the bar to loosen it from the frame.
3	With assistance, set the machine on the floor.
4	Using a 6 mm hex bit, remove the access cover and then remove the bolts and washers that connect the upper frame to the base frames.
5	Using a 6 mm hex bit, remove the bolts and washers that connect the base frames to the upper frame.
6	Remove the upper frame from the base frames.
	Move the equipment frame pieces to where you want to reassemble the equipment.



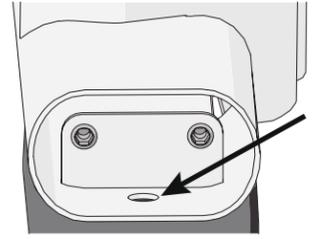
## Bolting the Equipment to the Floor

Precor recommends that the strength equipment be bolted down at all anchoring points. Bolting is made possible by removing the end caps at the frame base and exposing the mounting holes that accommodate the bolts (see the accompanying figure). Replace end caps when bolting is complete.

**CAUTION** Place the weight bar in the bottom (lowest) position before bolting the machine to the floor.

**Note** The metal frame housing the adjustable foot does not have an anchoring point.

**Important** As floor materials vary, it is important that you consult a licensed contractor to advise you on proper bolting techniques and appropriate fastener types.



Bolt down location

Standards occasionally change or are updated. Precor recommends that you keep apprised of your local industry standards. Precor shall not be held liable for failure to properly bolt the strength equipment to the floor.

Step	Procedure
6	Position the upper frame so that the connections are properly aligned with the base frames.
7	Using a 6 mm hex bit, connect the front base frame to the upper frame using the bolts and washers previously removed. <b>Important</b> <b>DO NOT</b> tighten the fasteners until instructed to do so.
8	Using a 6 mm hex bit, connect the upper frame to the back base frame using the bolts and washers previously removed.
	With assistance, set the equipment upright.
	Torque all frame bolts to 265 inch-pounds (29.94 newton-meters).
8	Using a 6 mm hex bit, attach the two access covers to the frame. Torque each bolt to 30 inch-pounds (3.38 newton-meters). <b>Note</b> Take care not to drop the access cover into the tube.
	Follow the procedures to attach the weight bar and horns, stabilize the equipment, and bolt it to the floor.

