PRECOR®

Vitality™ Series Selectorized Maintenance Guide

Important safety guidelines for owners

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

> CAUTION: 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’exercise. 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.

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 Vitality™ Series line of commercial strength equipment. It provides information about items that need to be inspected and maintained on a daily, weekly, monthly, and annual 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 can be performed in the fitness facility. However, if the equipment requires service beyond the maintenance procedures covered in this manual, refer to Obtaining Service.

> CAUTION: 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.

Required tools

Precor recommends 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.*

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.

Daily maintenance

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

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.

> CAUTION: 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). 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.

Precor products come equipped with an instructional placard and a number of standard warning labels (Figure 1). The following shows sample labels you may see on the equipment depending on the model and product line:



Figure 1

Inspect cables and end connections

> CAUTION: Carefully inspect the cables, pulleys, fasteners, and related hardware regularly. Replace any cable at the first sign of wear using only Precor-supplied replacement parts. With regular use, a cable can become worn and may fail. Sudden failure of worn cable can cause severe injury to a user.

Inspect the cables and end connections each day, and replace if damaged. Check for kinks, frayed wires, or deterioration of the cable coating. Look for signs of wear, particularly at crimped ends of the cable and near pulleys. **Cables must be replaced immediately** if they are damaged to avoid possible injury to users.

Some signs of damage are shown below (Figure 2).

1. Exposed inner wire, stretching or cuts in the coating, or broken coating in the area that passes over a pulley
2. A zigzag or wavy pattern
3. Kinks, which may indicate internal damage
4. A necked-down cover
5. A "ballooned" cover

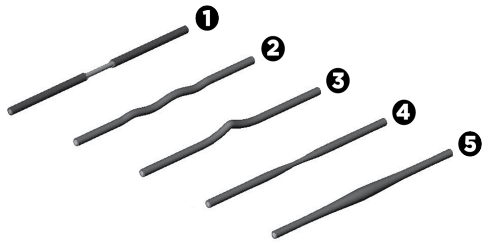


Figure 2

In addition, check the following:

- Ensure that each cable is properly adjusted and tightened at the top of the weight stack.
- Check cable pulleys, end connections, and end fittings. Ensure all connections are tight, adjust cable tension as necessary.
- Ensure that the cable bolt is threaded a minimum of seven (7) threads/turns into the selector stem, and the locking jam nut is tight (Figure 3).

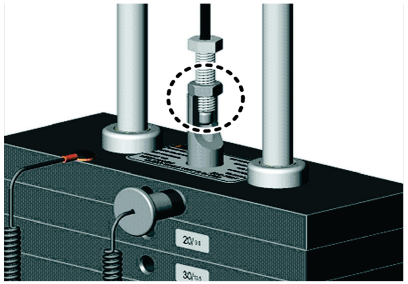


Figure 3

Weekly maintenance

Condition and Clean Upholstery

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.*

Clean and Lubricate Guide Rods

Note: On the Vitality Series, the upper rear shroud must be removed to access the guide rods for inspection, cleaning, and lubricating. See Shroud Removal section.

Inspect the exposed areas of the guide rods for cleanliness. Using a dry cloth, wipe any buildup of dirt or grease from the rods.

Lubricate the exposed areas of the guide rods by applying a light coat of Teflon® spray lubricant. Spray the lubricant on a cloth and then wipe the guide rods with the cloth. *Be careful with any lubricant spray; it can stain carpet and clothing.*

Note: Do not use petroleum-base lubricants. These lubricants tend to cause a rapid buildup of direct and hair on the weight plates, which can cause the plates to stick together.

CAUTION: Do not attempt to lubricate the guide rods when the equipment is in use. Attempting to lubricate between the weight plates without complete disassembling the stack will result in serious injury.

Inspect Cables, Connections, and Tension

Each week, give the cables and connections a thorough inspection and check cable tensions. The following lists the specific things you need to inspect:

- Check the cable termination at the weight stack. For most equipment, the exposed shank can be no more than 1¼ inches (32mm); this distance allows for a minimum of 10 turns of the bolt into the selector stem (refer to Inspect Cables and End Connections, earlier). Check and adjust the distance accordingly. Also make sure that the locking jam nut is tight against the selector stem.
- Check the cable, especially near all pulley wheels and cams.
- Check the cable as it terminates at the cam, which is stationary on most equipment. Inspect the bolt passing through the cam end fitting to be sure the two jam nuts are tightened against each other. Also, check the entire cable routing to verify that there is no interference with any structure.
- Inspect the ball end of the cable where the cable connection rests in the clevis housing.
- Make sure that each cable is properly adjusted and tightened at the top of the weight stack.
- Check cable pulleys, end connections, and end fittings. Make sure all connections are tight, adjusting cable tension as necessary.

Inspect Cable Handle Attachments

Check the cable-to-handle attachment area very closely (Figure 4). Look for frayed cable ends, broken thimbles, bent cables, worn spring clips, worn handles, and any other unusual wear.

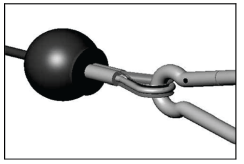


Figure 4

Also, check the spring clip gate and make sure it closes properly and engages securely (Figure 5). Check the spring clip, links, and cable; replace any spring clip link that does not function properly or shows wear.

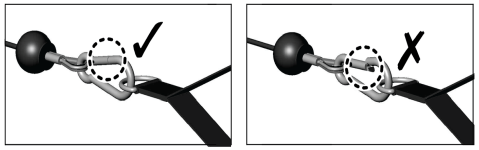


Figure 5

Inspect Pulleys

Precor uses precision ball bearing idler pulleys to guide the cable smoothly.

Inspect each pulley for damage, including hairline cracks, chips, or missing sections. Worn surfaces in the pulleys can cause severe damage to the cables and must be replaced at the first sign of wear or damage.

Be certain that the wheels turn freely as the equipment is used. Inspect each pulley for excessive side-to-side play, which indicates worn bearings or loose mounting bolts. If excessive play is discovered, remove the pulley to inspect the bearings and replace the entire pulley if necessary.

Inspect Weight Stack and Selector Pin

Weight stacks are made of precision machined plates that are designed as a single mechanism to stack precisely. Use only Precor-supplied add-on weights and weight selector pins.

On a weekly basis, inspect weight stacks and selector pins. Wipe each plate with a damp cloth as needed. Inspect all plates for sharp burrs or damage. Wipe dirt and dust off the guide rods.

Make sure the equipment uses only the original Precor selector pin. In addition, make sure the selector pin can be fully inserted and retained in each weight plate.

Inspect and Lubricate Bearings and Bushings

Precor uses high quality bearings designed for strength applications and long service life. Each week, do the following to maintain the bearings and bushings on the equipment:

- **Bronze bushings**: Precor recommends using a small amount of silicone spray lubricant to lubricate these bushings, which usually support rotary shafts. Spray directly onto the shaft, and then rotate the shaft through its complete range of motion several times. Inspect bushings for excessive wear and damage. Be careful when using the spray lubricant; it can stain carpet and clothing. Wipe off any excess lubricant with a cloth.
- **Nylon bushings:** Lubricate the nylon bushings on the guide rods by applying a light coat of silicone spray lubricant. Spray the silicone lubricant on a cloth, then wipe the cloth along the full length of the guide rod.
- **Sealed Bearing Pivot Points:** These locations are protected from the outside environment and require no lubrication. While cleaning the equipment, wipe down the shafts and external bearing surfaces with a cloth to prevent the buildup of dust and perspiration.
- **Linear Bearings:** These bearings allow weight plates and other mechanical parts to travel smoothly along guide rods (Figure 6). Inspect the ends of each guide rod to make sure they are fastened correctly and all bolts are tight. Wipe down guide rods using a light application of a silicone spray lubricant to remove dust, hair, and dirt. Polish the guide rods using fine grade steel wool if surface rust is present.

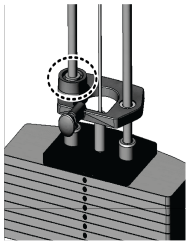


Figure 6

Important: Do not use petroleum-based lubricants.

If you lubricate the guide rods regularly, then the bearings will function as designed. Otherwise, the guide rods may corrode. This can cause the bearings to become clogged and jammed, leading to actual gouging of the guide rods. Be sure to remove surface rust and oxidation from the guide rods as soon as you observe it.

Check Seat Adjustment and Test Pop Pins

Precor strength equipment has three types of adjustments:

- 2x4-inch or 2x2-inch telescoping sleeve adjustment for most seat assemblies with and without ratcheting mechanism
- 1⁄2-inch slotted plate adjustments used on most free-weight bench adjustments
- Gas-assisted or spring-assisted seats and back pads

Inspect all adjustments for proper fit and function. Inspect plastic sliders for excessive wear or damage. Check and clean the rail or gas shock periodically. Adjustments use either a high-tensile pop pin plunger assembly or a ratcheting lever assembly. Inspect and tighten all pop pin caps.

Monthly maintenance

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

Inspect Frames and Movement Arms

Inspect frames and movement arms monthly for proper function and integrity. Check for cracks, chipped paint, or rust. Touch up dings and chips in the paint as needed. Replace any component at first signs of wear.

Note: You can order touch-up paint from Precor by calling Customer Support. Refer to Obtaining Service.

Inspect frames for cracks, particularly at the joints. If any cracks are found, take the equipment out of service immediately and have a qualified maintenance technician repair it. Refer to *Important safety guidelines for owner*s and *Obtaining service* sections.

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.

Lubricate Pop Pins

Pull out the pop pin as far as it goes and apply a small amount of Teflon® spray lubricant. Wipe off any excess lubricant with a cloth (Figure 7).

CAUTION: Pulling out the pop pin may cause the unit to adjust position suddenly. To avoid injury, keep your hands and head away from moving parts.

Test the pop pin for proper function and engagement in each adjustment hole.

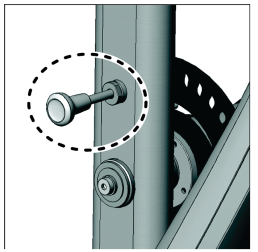


Figure 7

Check and Lubricate Ratcheting Seat Lever

The ratcheting seat, which provides audible confirmation of its position as a user moves it up or down, 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. You also want to ensure that the pin fully engages in each adjustment hole.

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 Teflon® spray lubricant. Wipe off any excess lubricant with a cloth (Figure 8).

If necessary, you can detach the seat by removing the retaining pin, then remove the chrome for cleaning. Removing the seat also allows clear access to the ratcheting lever to test its pivoting action.



Figure 8

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, tighten 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 Precor Customer Support.

Annual maintenance

Perform the following tasks annually to maintain the equipment and keep it operating smoothly.

Weight Stack Annual Maintenance

Once a year, Precor recommends disassembling the weight stack to clean and inspect it thoroughly.

- Carefully remove the cable and guide rods from the weight stack. Completely disassemble the weight stack in a well-ventilated area, away from the exercise floor.
- Inspect weight plates and clean them thoroughly. Cracked or broken plates should be replaced immediately (refer to Obtaining Service to purchase replacements). Clean each plate individually and inspect guide bushings.
- Inspect the bushings of the top weight plate and each individual weight plate, and replace a plate if it is excessively worn or broken.
- Clean the selector stem and inspect it for wear and damage.
- Reassemble the weight stack.
- Wipe down the weight stack enclosures (shrouds) with a damp cloth as needed. Inspect all fasteners to make sure the shroud is securely mounted.

Important: Precor recommends that you replace worn and damaged cables during routine maintenance. It is recommended that all cables be replaced annually.

Shroud removal

The Vitality™ Series Selectorized Line includes a shroud that must be removed to perform the maintenance described in this manual.

Important: Do not remove the shroud while the equipment is in use.

Use the following instructions to remove the shroud:

1. Remove the four M6 x 16 mm pan-head Philips screws that secure the top cap to the weight tower frame. Set the screws aside.
2. Lift the outside shroud straight up until its tabs are clear of the shroud clips mounted on the weight tower uprights, then remove the outside shroud.
3. Repeat the previous step to remove the inside shroud. Perform the necessary maintenance. When finished, replace the shroud.
4. Align the tabs on both sides of the inside shroud with the slots on the shroud clips (Figure 9).
5. Press the edges of the shroud in, then down, to secure the shroud.
6. Repeat the previous two steps to mount the outside shroud on the unit.

Important: Just inside the lip of the top cap are ribs that align the top cap with the outside and inside shrouds. In the following step, make sure that the top edges of the two shroud panels fit between these ribs and the lip of the top cap.

7. Slide the top cap over the top edges of the two shrouds, making sure that the top edges of the shrouds align correctly with the top cap.
8. Secure the top cap to the weight tower frame using the hardware removed earlier and tighten screws.

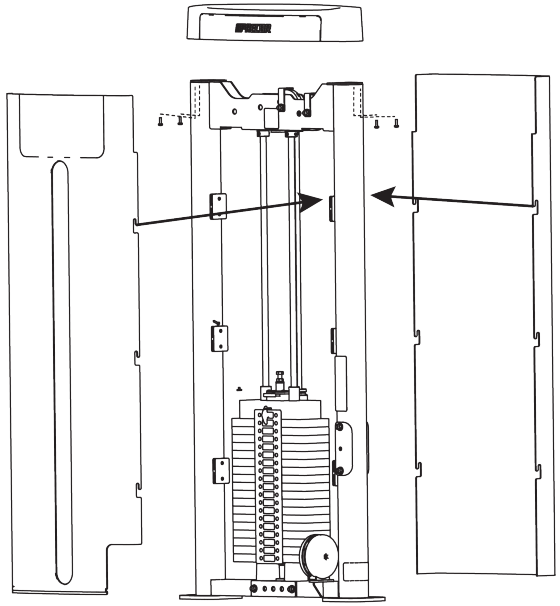


Figure 9