PRECOR®

# Vitality™ Series Selectorized Biceps Curl/Triceps Extension Assembly Guide

## Assembly requirements

Precor recommends at least two people for this installation. DO NOT attempt assembly by yourself.

When assembling the equipment, we recommend you:

- Follow the steps in the order listed in this assembly guide.
- Unpack the box and 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 or in front of the equipment.
- Assemble the equipment on a solid, flat surface, so that it remains level and stable.

**Required tools**

- Adjustable wrench
- Torque wrench
- Rubber mallet
- Hex wrench sets, metric and standard, with extensions
- Socket wrench set, metric and standard, with extensions

**Equipment dimensions:** W42.5 x D52 x H60 inches/W107.9 x D132 x H152.4 cm (in-use) - W42.5 x D60.1 x H60 inches/W107.9 x D152.6 x H152.4 cm (idle)

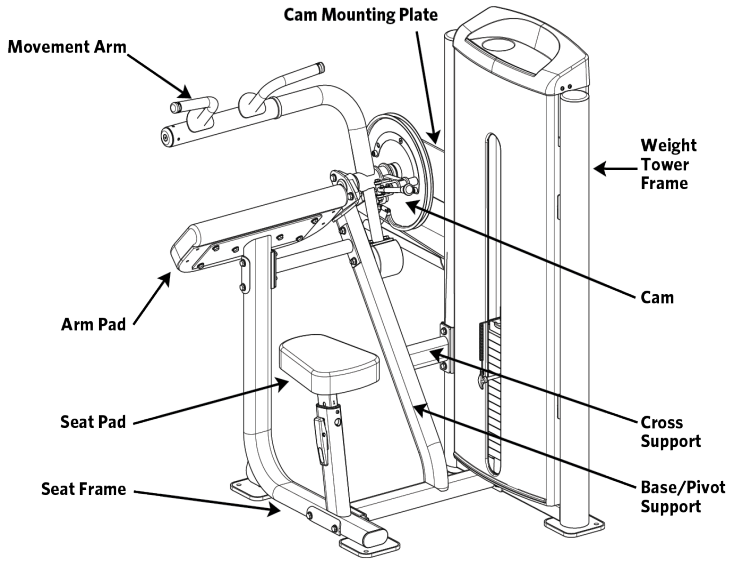



Fig. 1

## Begin Assembly

**CAUTION:** Do not fully tighten fasteners until instructed to do so.

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 toppling the equipment due to improper use. Since floor construction varies, please consult a professional building engineer for proper fastening.

## Assemble frame

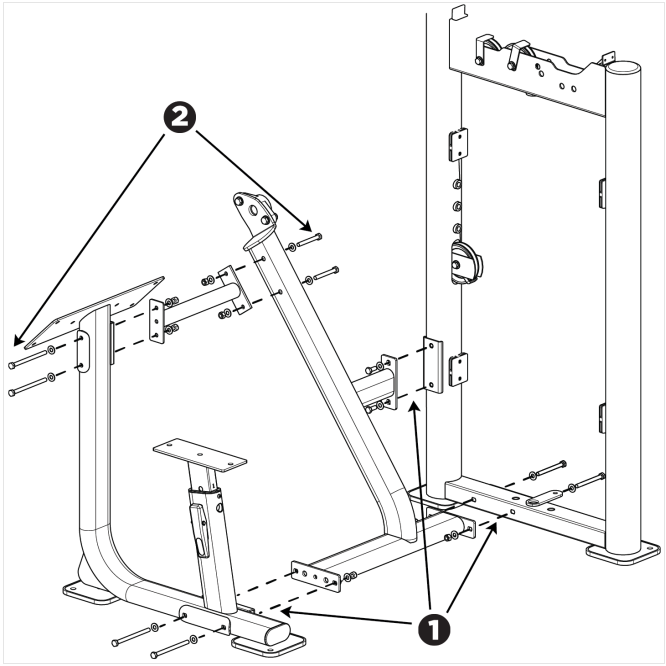



Fig. 2

1. Attach the base/pivot support to the weight tower frame and seat frame using:
   - 2 – M10 x 100 mm hex head bolts (lower pivot support to weight tower frame)
   - 2 – M10 x 25 mm hex head bolts (upper pivot support to weight tower frame)
   - 2 – M10 x 135 mm hex head bolts (base/pivot support to seat frame)
   - 10 – 11 mm flat washers
   - 4 – M10 nylon lock nuts

   Fully tighten the two fasteners securing the upper pivot support to the weight tower frame. Partially tighten all other fasteners.

2. Attach the cross support to the weight tower and base/pivot support using:
   - 2 – M10 x 80 mm hex head bolts (cross support to base/pivot support)
   - 2 – M10 x 135 mm hex head bolts (cross support to seat frame)
   - 8 – 11 mm flat washers
   - 4 – M10 nylon lock nuts

   **Note:** Partially tighten the fasteners so that the weight tower frame and seat frame are stable.

# Attach movement arm

**Note:** To simplify this procedure, you may want to back out the set screws on the two pillow-block bearings before you begin. Also, at the end of this procedure, the unit will be unbalanced, so make sure you have a way of stabilizing it while you install the weight stack assembly in the following procedure.

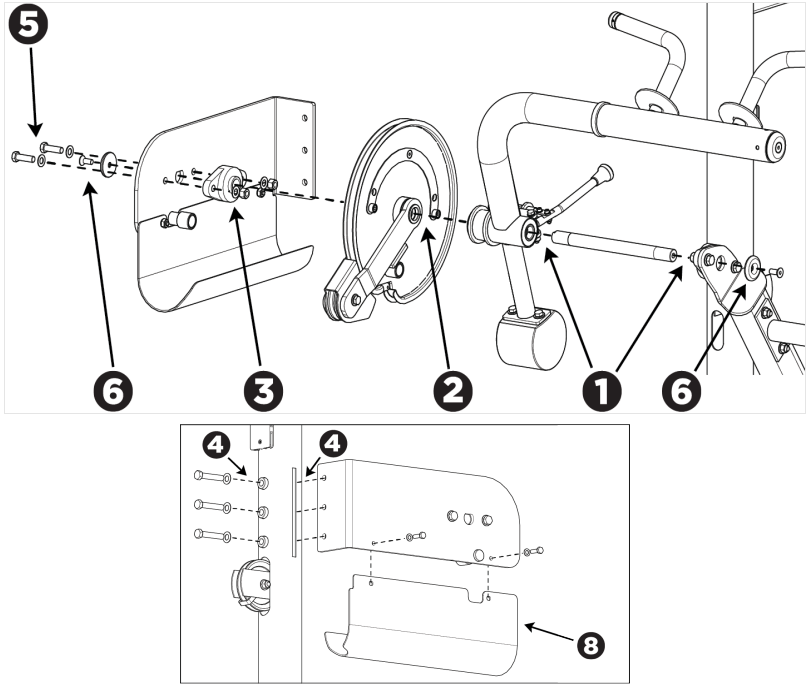



Fig. 3

1. 1. Attach the movement arm to the pivot support. Slide the round end of the axle into the pillow-block bearing on the pivot support until it stops. Tighten the two set screws to hold the axle in place. Have your assistant support the movement arm while you guide the movement arm onto the axle. Have your assistant continue to support the movement arm through the rest of this procedure.
2. 2. Slide the cam and pulley arm assembly onto the axle, making sure that the rubber stops on the cam are facing the cam support plate (and facing away from the user).
3. 3. Slide the pillow-block bearing over the end of the axle.
4. 4. Insert the cam support plate into the slot in the weight tower frame and attach it securely using:
   3 – M12 x 65 mm hex head bolts
   3 – 13 mm flat washers
5. 5. Secure the movement arm and the pillow-block bearing to the cam support plate using:
   **Note:** Attach the pillow block bearing with the brass fitting facing downwards
   2 - M12 x 40 mm hex head bolts (secured on the side opposite the pillow-block bearing)
   2 - Barrel spacers (fit into mounting holes on pillow-block bearing)
   4 - 13 mm flat washers
   2 - M12 nylon lock nuts (secured on the pillow-block bearing side)
   **Note:** If necessary, rotate the axle until its keyed end fits into the hole in the cam support plate. There are two metal flanges on the pulley arm assembly. Position these stops so that they rest on top of the stops on the cam support plate and on the cam itself. After you have secured the movement arm and pillow-block bearing, tighten all three cam support plate bolts completely.

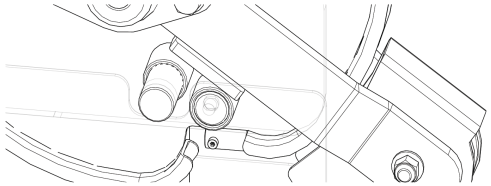


Fig. 4

6. 6. Secure the movement arm and the cam support plate to the pivot support tube using:
   2 – M10 x 25 mm flat head cap screws (silver)
   2 – Aluminum end caps

7. 7. Using a long hex wrench, tighten the two set screws on the pillow-block bearing attached to the cam support plate.

8. 8. Align the cam cover as follows:
   — It is positioned along the inside of the cam support plate.
   — Its two mounting holes line up with the two mounting holes near the top edge of the cam support plate.
   — Once installed, its recessed end fits snugly against the weight tower upright.
   — Once installed, its curved portion extends over the movement arm cable.
   Attach the cam cover to the cam support plate using:
   2 – M8 x 25 mm hex head bolts
   2 – 9 mm flat washers
   **CAUTION:** The unit is unbalanced at this point. Stabilize it by weighing it down or holding it in place until you have installed the weight stack assembly.

# Install weight stack tower

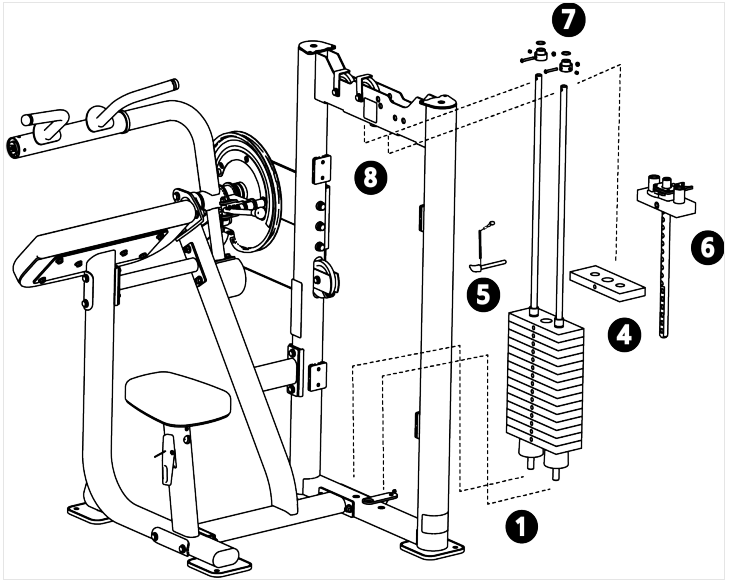



Fig. 5

1. 1. Insert the guide rods into the holes at the bottom of the weight tower frame.

   **Important:** A hole passes through one end of each guide rod. Be sure to insert the end without the hole into the bottom of the frame.

2. Pull the guide rods away from the frame, keeping their lower ends engaged in the bottom of the frame. Slide one weight stack bumper over each guide rod, narrow end up.

3. Check the guide rods for silicone lubricant. If you do not find any, add some of the lubricant supplied in the hardware kit to the guide rods.

4. 4. Carefully slide **sixteen** 10 lb. (4.5 kg) weight plates onto the guide rods, one by one.

5. 5. If the cable assembly is attached to the top weight plate, then unscrew it and remove it at this time. Slide the ring at the end of the tether on the weight selection pin over the right-hand post on the top weight plate.

6. 6. Slide the top weight plate with weight stack stem onto the two guide rods and lower the stem through the center holes of the weight plates. The weight selection handle should be on the right side facing the user.

7. 7. Secure the weight stack assembly to the weight tower frame. Slide the guide rod locking collar (O-rings on top) onto the guide rods (the smaller diameter shoulder on the collar should be facing up). Re-align the guide rods with the mounting holes at the top of the weight tower.

8. 8. Have your assistant hold the guide rods in place. Slide the collars up until the shoulder of each collar fits into the tower frame. Insert one M6 × 45 mm button head cap screw through the holes in each collar and each guide rod, then attach an M6 nylon lock nut to each button head cap screw. Tighten the button head cap screws securely, then attach and tighten the M8 set screws using the S4 hex key.

9. Spray a lint-free cloth with isopropyl alcohol and wipe the front of the weight plates clean. Use a second lint-free cloth to remove any remaining alcohol before applying labels.

10. Apply the weight plate labels (select LBs or KGs) to the left of the weight selection holes.

# Install add-on weight assembly

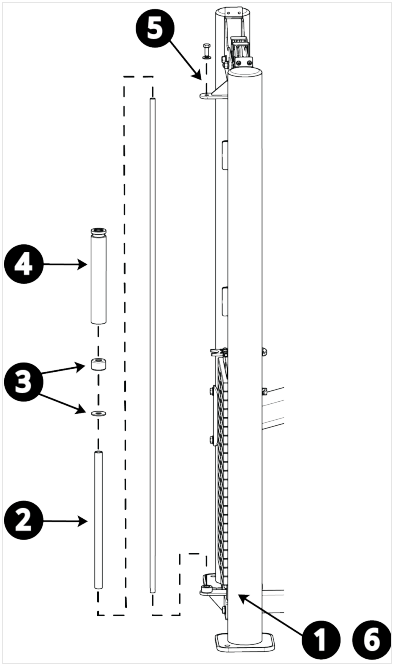



Fig. 6

1. 1. Insert the lower end of the 14 mm guide rod into the retaining ring at the bottom of the weight tower frame.

   **Note:** The rod has a threaded hole in one end for a screw and a hole in the side towards the other end. The threaded screw hole in the end for the screw should face up so it can be secured in step 5.

2. 2. Slide the 202 mm support tube onto the guide rod from the top down.

3. 3. Slide the support ring onto the guide rod, followed by the rubber bumper.

4. 4. Slide the 5 lb (2.5 kg) add-on weight onto the guide rod, making sure that the groove is at the top end of the weight.

5. 5. Attach the top of the guide rod to the bracket at the top of the weight tower frame using:

   1 – M10 x 25 mm hex head bolt

   1 – 11 mm flat washer

6. 6. Fully tighten the M8 set screw in the retaining ring using the S4 hex key.

# Route the cable

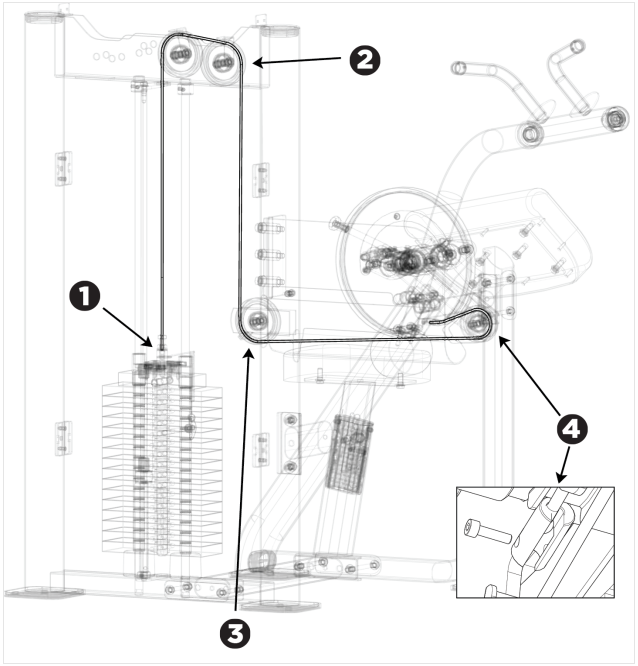



Fig. 7

1. 1. Screw one end of the cable assembly into the top of the weight stack stem.

   **CAUTION:** Be sure to complete seven (7) turns/threads of the cable bolt into the fitting, and then tighten the jam nut. There should be a maximum of 1-1/8 inch (29 mm) between the bottom of the cable bolt head and the bottom of the flange lock nut (see Adjust cable tension section).

2. 2. Pull the cable through the top of the weight tower frame and over the top of the center pulley and under the cable retaining bracket.

3. 3. Pull the cable to the top outside pulley, routing the cable under the cable retaining bracket, over the top of the pulley and down the pulley at the cam support plate. Tighten the cable retaining brackets. Be sure that the cable retaining brackets do not interfere with the travel of the cable.

   **Note:** The pulleys do not need to be removed. To make the following step easier, brace the top weight plate in a raised position. Remove the brace and return the top weight plate to its normal position after the end of the cable is in place.

4. 4. Thread the cable under and around the pulley on the cam assembly, then insert its end into the cable slot on the cam. Secure the cable with an M4 x 15 mm screw.

   **Note:** The screw is pre-assembled to the cam. First, remove the screw, then install the cable into the slot on the cam and replace the screw.

# Tighten all frame mounting hardware

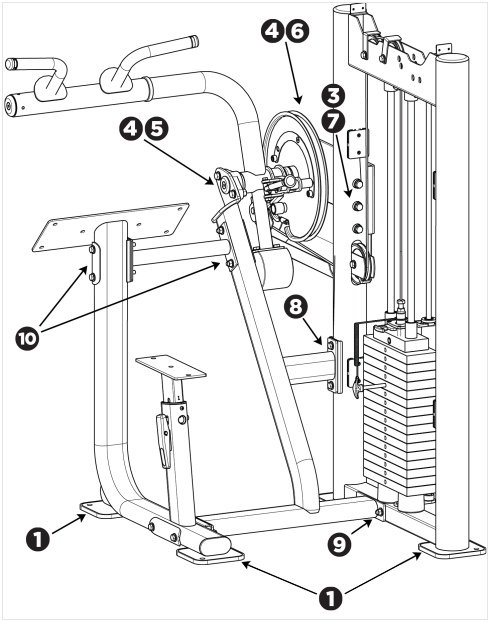



Fig. 8

1. 1. Check that the weight tower and seat frame are sitting evenly on the floor.

   2. Verify that the movement arm is parallel to the floor when it is at rest.

| ***If the movement arm is....*** | ***Then*** |
|---|---|
| Parallel to the floor | Skip to step 9. |
| Not parallel to the floor | Continue with step 3. |

3. 3. Loosen the three bolts attaching the cam support plate to the weight tower.

4. 4. Loosen the bolts attaching the two pillow-block bearings.

5. 5. While your assistant holds the movement arm parallel to the floor, tighten the bolts securing the pillow-block bearing on the pivot support.

   **Note:** Your assistant should continue to hold the movement arm parallel to the floor until you complete step 8.

6. 6. Tighten the bolts securing the pillow-block bearing on the cam support plate.

7. 7. Tighten the bolts securing the cam support plate to the weight tower.

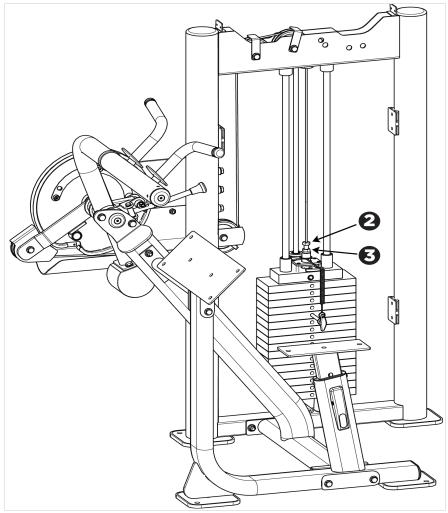
8. 8. Check the mounting hardware securing the cross support to the weight tower and make sure it is still tight. If not, retighten it.

   **Note:** Your assistant should be able to the release the movement arm now. The movement arm should remain parallel to the floor.

9. 9. Tighten the mounting hardware at the base support.

10. 10. On the seat frame, tighten the mounting hardware at the base support, then at the cross support.

# Adjust cable tension



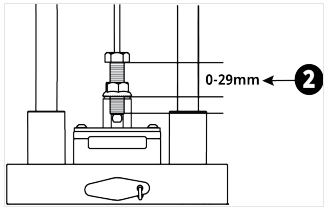




Fig. 10

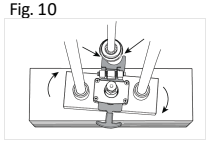


Fig. 11: Misaligned

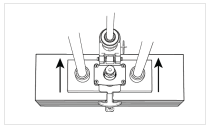


Fig. 9 Fig. 12: Aligned

1. Place the weight selection pin in the top weight.

2. 2. Screw the cable bolt into the selector stem until the cable meets the following requirements:

— At least seven (7) turns/threads (minimum) on the cable bolt into the weight selector stem.

— A maximum of 1-1/8 inch (29 mm) between the bottom of the cable bolt head and the bottom of the flange lock nut.

— No excess slack remains.

— The top weight begins to separate from the second weight.

— The cable is just loose enough to permit insertion of the selector in into each of the weight plates.

3. 3. Hold the weight tower straight while tightening the locking jam nut against the selector stem. If you do not hold the weight tower straight, it can twist (see Figure 11).

4. Once tightened, verify alignment between the selector and the add-on weight.

5. Check the adjustment by inserting the weight pin into every weight plate hole. The weight pin should slide easily in and out of each weight plate.

# Attach the pads

1. 1. Attach the arm pad to the arm pad post using:

**Note:** The thicker end of the pad should face the seat.

6 – M10 x 30 mm hex head bolts

6 – 11 mm flat washers

2. 2. Attach the seat pad to the seat bracket using:

**Note:** The narrow end of the pad should face the movement arm.

2 – M10 x 30 mm hex bolts

2 – 11 mm flat washers

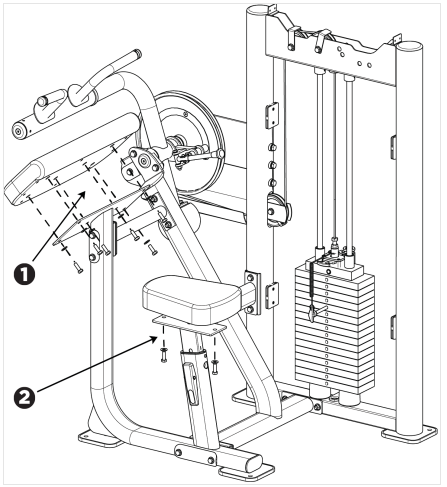



Fig. 13

# Install weight stack shroud and top cap

The inside shroud has a slot for weight selection. Both shrouds have three slotted tabs on each side that fit into the shroud clips mounted to the inside of the weight tower uprights.

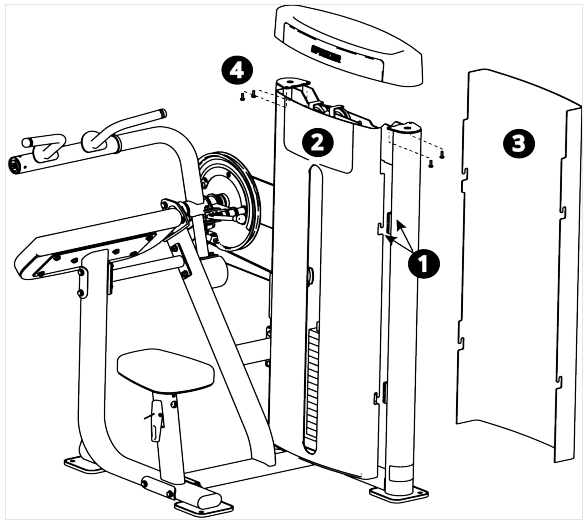



Fig. 14

1. 1. Align the slotted tabs on the inside shroud with the shroud clips on both sides of the weight tower.

2. 2. Press the hooks into the clips and lower the shroud securely into place.

3. 3. Repeat steps 1 and 2 to install the outside shroud.

4. Place the top cap on top of the shrouds so that the top edges of the shrouds fit into the slot between the lip and the ribs of the top cap. Secure the top cap to the weight tower frame using:

4 – M6 x 16 mm pan-head Phillips screws

## Bolt equipment to floor

Precor recommends that the strength equipment be bolted down at all anchoring points. Bolting is made possible through the bolt holes on each foot. The inside diameter of each hole is 14.3 mm.

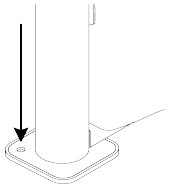


Fig. 15

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

**CAUTION** Standards can change. Precor recommends 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.

## Apply labels

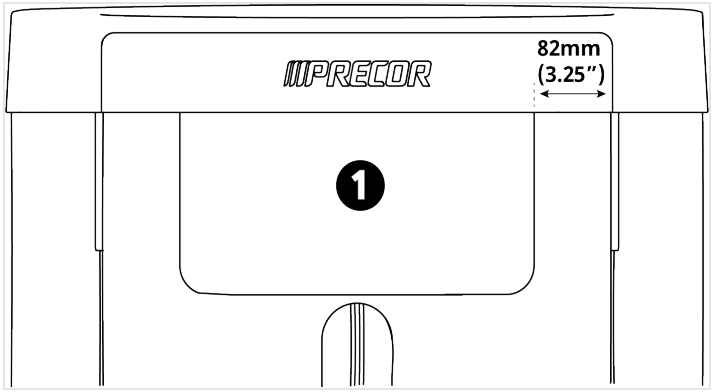



Fig. 16

1. Attach the **Instructional label** to the inside shroud under the top cap. Center and place the label flush with the bottom of the cap. To help center, align the right edge of the label 82 mm (3.25") from the edge of the raised section of the top cap.

## Verify operation of equipment

Once assembly is complete, verify safe operation by checking the following points:

- Cable tension is correct and the cable is moving smoothly on its pulleys.
- Movement arm is stable and moves smoothly through its range of motion.
- Adjustment points are stable and move smoothly through their range of motion.

## Disassemble the equipment

You may occasionally need to disassemble this unit to move it between rooms or buildings. In such cases, reverse the assembly steps in this manual to disassemble. After the unit has been moved, follow the steps in this manual to reassemble it.

**WARNING: You will need assistance to disassemble this unit. The weight tower can become unstable during parts when disassembling. Make sure the weight tower is supported safely throughout the process and NEVER attempt to disassemble by yourself.**

## Maintenance information

It is important that the equipment be maintained in accordance with the Vitality Selectorized Line Maintenance Guide. Please visit any Vitality Selectorized product page at ***www.precor.com*** to view the guide.