

Section Four - Checking C546i Operation

This section provides you with a quick method of checking EFX operation. Check the operation of the EFX at the end of most maintenance procedures.

Procedure

1. Start striding on the C546i or plug the optional external power supply (when available) into the EFX and the AC outlet.
2. When the **PRECOR** banner displayed, press **QUICK START**.
3. Select Resistance Level 1 and press **ENTER**.
4. Operate the EFX for 4–5 minutes. As you operate the EFX, concentrate on the operating sounds made by the unit. Be on the alert for unusual rubbing, hitting, grinding, or squeaking noises.
5. If the EFX makes unusual noises or the electronic display does not change appropriately, troubleshoot per Section 6.
6. Press the **RESISTANCE ▲** key until you reach Resistance Level 10. Operate the EFX for another 2–3 minutes.
7. If the EFX resistance does not change or the operation of the EFX feels inconsistent compared with Resistance Level 1, troubleshoot per Section 6.
8. Press the **RESISTANCE ▲** key until you reach Resistance Level 20. Operate the EFX for another 2–3 minutes.
9. If the resistance of the C546i does not change or the EFX operation feels inconsistent with Resistance Levels 1 and 10, troubleshoot per Procedure 6.6.
10. Check the LED's mounted on the upper PCA and the function keys displayed on the electronic console by performing Procedure 3.2.
11. Press the **CROSSRAMP ▲** key while viewing the electronic console. Confirm that the foot pads incline and the ramp display increments to 20 as the **CROSSRAMP ▲** key is pressed.
12. Press the **CROSSRAMP ▼** key while viewing the electronic console. Confirm that the foot pads return to a level position and the ramp display decrements to 1 as the **CROSSRAMP ▼** key is pressed.
13. If the ramp system of the C546i does not operate properly, troubleshoot per Procedure 6.5.

Procedure 5.1 - Measuring the Resistance of a Generator

Caution

Remove power from the EFX before you measure magnet resistance.

Procedure

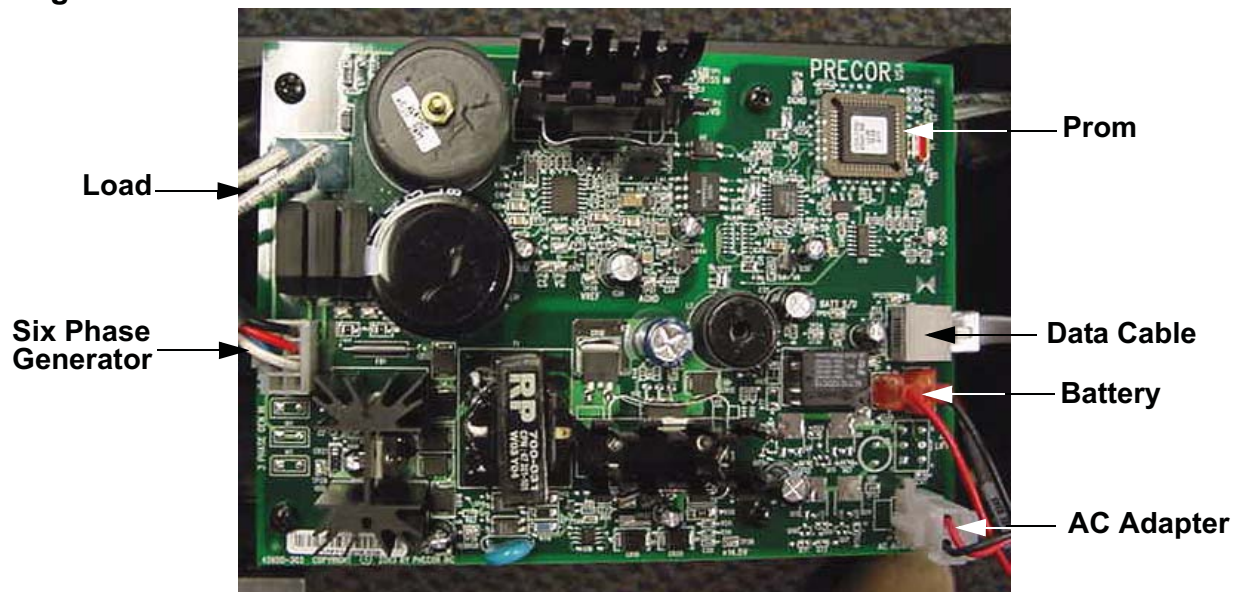
1. Remove the rear cover and disconnect the red battery lead from terminal M6 of the lower PCA.

WARNING

Before continuing with this procedure, review the Warning and Caution statements listed in Section One, Things You Should Know.

2. Set the ohmmeter to a range that will conveniently read up to 50 Ω .
3. Remove the six phase generator connector from the lower PCA, refer to Diagram 5.1, below.
4. With an ohmmeter, read between terminals 1 & 2, terminals 1 & 3, terminals 1 & 5, terminals 1 & 6, and terminals 1 & 7 on the six phase generator connector (J1). Each of the six readings should be between 36 Ω and 39 Ω .
5. If any of the readings are significantly high or significantly low, remove the intermediate cable from the generator and perform the same measurements as in step 4 on the generator connector. If the readings are now correct check and or replace the intermediate cable. refer to Diagram 5.3. If the readings are still incorrect, remove the six phase generator.

Diagram 5.1 - Lower PCA



6. Replace the generator per Procedure 7.18. Reconnect the intermediate cable removed in step 5 to the replacement generator and the lower PCA.
7. Reconnect the red battery lead to terminal M6 of the lower PCA.

Procedure 5.2 - Inspecting and Adjusting Belt Tension

Procedure

1. Remove the rear cover and disconnect the red battery lead from terminal M6 of the lower PCA. If you are only inspecting the generator belt tension, skip to step 7.

WARNING

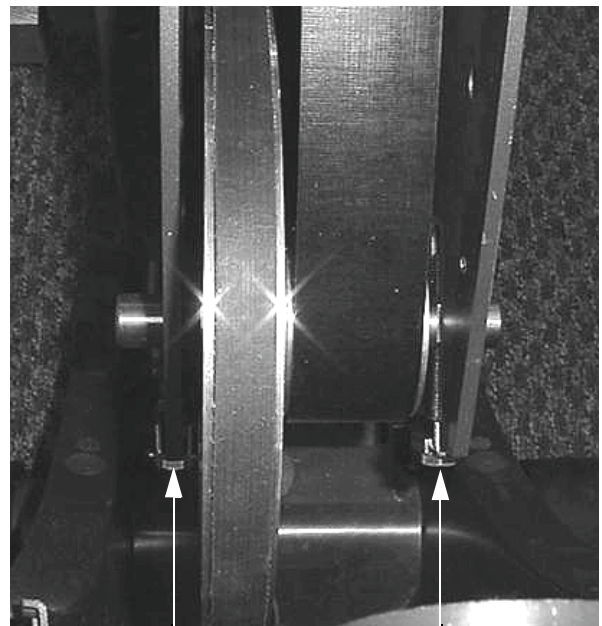
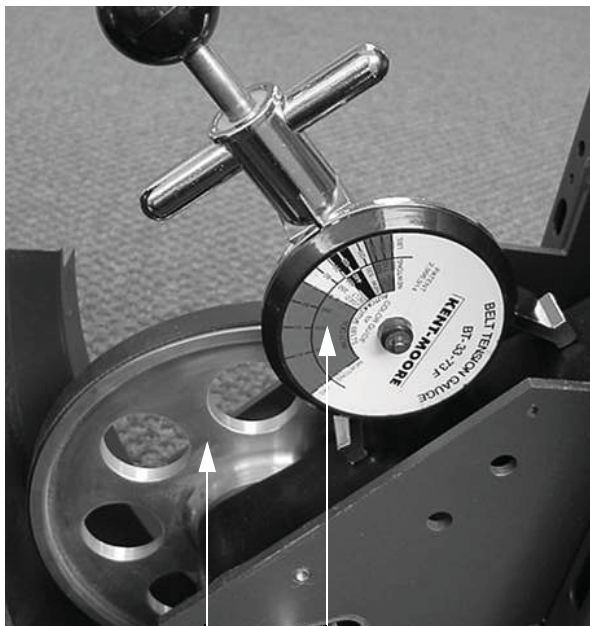
Before continuing with this procedure, review the Warning and Caution statements listed in Section One, Things You Should Know.

WARNING

If the EFX has been in recent use, the load resistors and mounting bracket may be extremely hot.

2. Remove the three screws that fasten the load resistor assembly and shield to the frame upright. Rotate the load resistor assembly 180 degrees and set it on the top of the frame upright.
3. Place a 20030-108 or equivalent belt gauge on the input belt as shown in Diagram 5.2.

Diagram 5.2 - Input Belt Tension Measurement



Step Up
Pulley

Belt Gauge

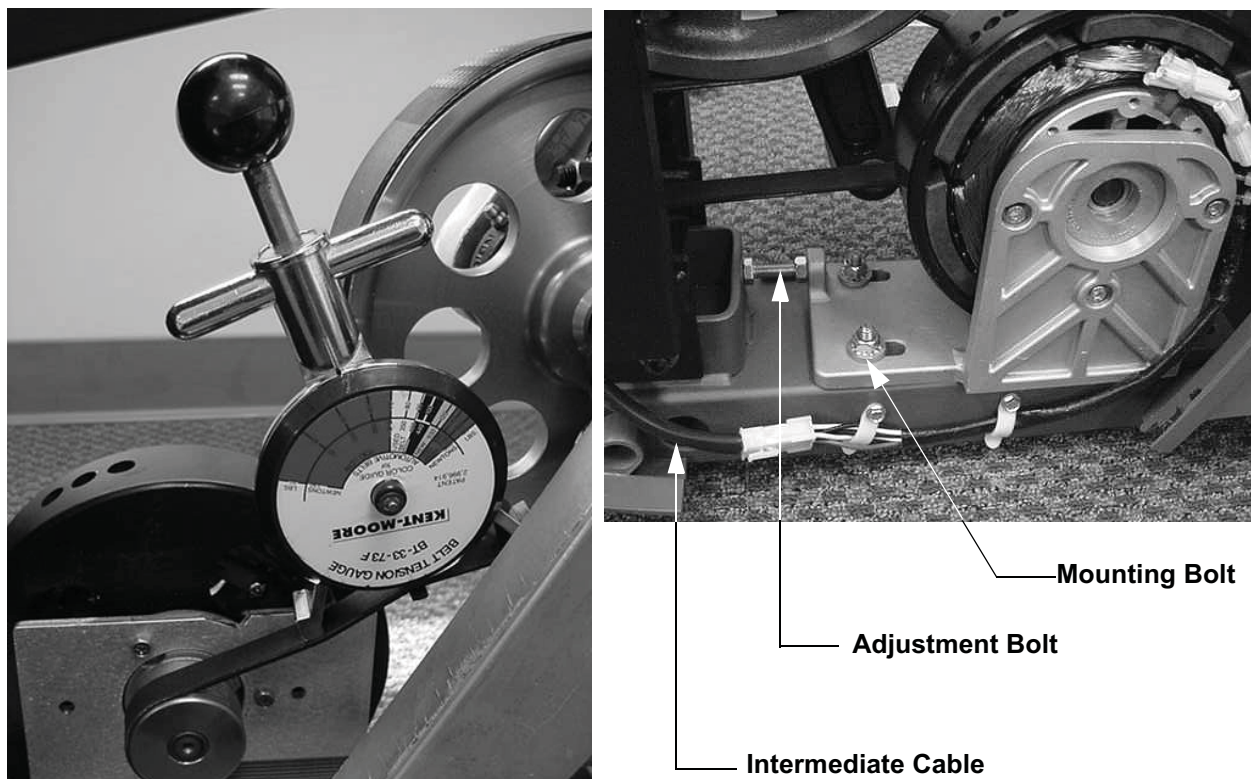
Adjustment
Bolt

4. The belt gauge should read 160 lbs. If the belt tension is significantly high or low the belt tension may be adjusted using the adjustment bolts shown in Diagram 5.2. To adjust the belt tension first straighten the locking tabs on both bolts. When adjusting the tension, turn

both bolts equal amounts. When the adjustment is complete the step up pulley shaft must remain perpendicular to the frame and drive belt. Turning the adjustment bolts clockwise will increase belt tension, turning the adjustment bolts counter-clockwise will decrease belt tension.

5. Changing the tension of the input drive belt will also affect the tension of the generator belt. If the input belt tension has been changed, continue with step 7.
6. Place a 20030-108 or equivalent belt gauge on the generator belt as shown in Diagram 5.3.

Diagram 5.3 - Generator Belt Tension Measurement



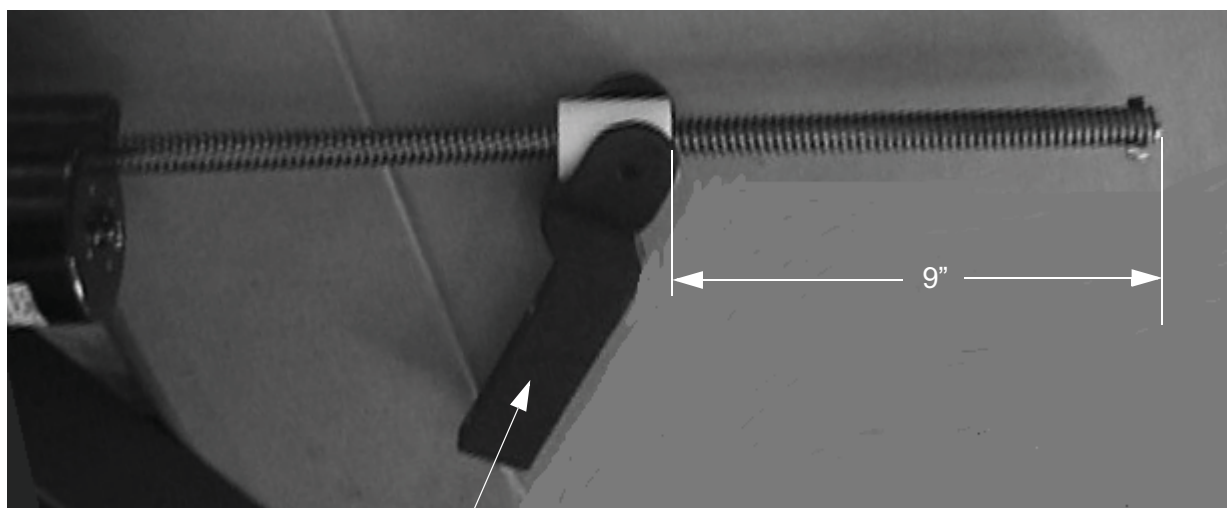
7. The belt gauge should read 110 lbs. If the generator belt tension is significantly high or low, it may be adjusted using the adjustment bolt shown in Diagram 5.3. First loosen, but do not remove the four generator mounting nuts and the jam nut on the adjustment bolt. Hold the adjustment bolt head with one wrench and turn the adjustment nut to change the belt tension. When the tension is correct, tighten the jam nut. Tighten and torque the four generator mounting nuts to 200 inch pounds.

8. If either the input pulley belt or the generator belt is being replaced with a new belt, the belt tension should be set 20 lbs. higher than the previous readings. Therefore a new input pulley belt should be tensioned to 180 lbs. and a new generator belt should be tensioned to 130 lbs. Over time and use the belts will “relax” and the tensions will be as stated in steps 4 and 7.
9. Reconnect the red battery lead to terminal M6 of the lower PCA.

Procedure 5.3 - Calibrating the Lift Motor

1. Remove both front covers.
2. Remove the four screws that fasten the lift motor yoke into the ramp.
3. Carefully, slide the lift motor yoke out of the ramp and lower the ramp until it is resting on the frame.

Diagram 5.4 - Lift Motor Mounting and Calibration



Lift Yoke

4. Access the lift A/D reading via the Lift Test portion of the Diagnostic Program, see Procedure 3.2.
5. With the A/D number displayed set it for a reading of 127 using the **CROSSRAMP ▼** and **CROSSRAMP ▲** keys.
6. Rotate the lift yoke on the lift motor drive screw until the measurement between the top of the lift nut and the end of the lift motor drive screw is 9 inches. See Diagram 5.4. While rotating the lift motor yoke, do not allow the lift motor drive screw to rotate. If the lift motor drive screw rotates, the A/D number will change. The A/D number must be 127 and the physical measurement must be 9 inches for the calibration to be correct.
7. Lift the ramp off of the frame and slide the lift motor yoke into the ramp. Do not rotate the lift any more than is absolutely necessary to align the lift motor yoke with the ramp.
8. Apply a light coating of blue loctite to the four screws removed in step 2. Fasten the lift motor yoke with the loctited screws and torque them to 240 inch pounds.