

- 3 If you receive a "POWER LOSS" error after allowing the motor to cool down for 60 minutes; re-check the thermal switch wires as described in step 2. If the continuity test fails (your multimeter reads an "open"), replace the drive motor. If you have continuity between the two thermal switch wires and you receive a "POWER LOSS" error at power-up, replace the VSD.

**Important:** When replacing the main motor, be sure to install the rubber insulators under the washers. If after replacing the motor the belt runs backwards, swap any two adjacent motor phase wires P7 and P8, or P8 and P9.

## Replacing the Drive Motor

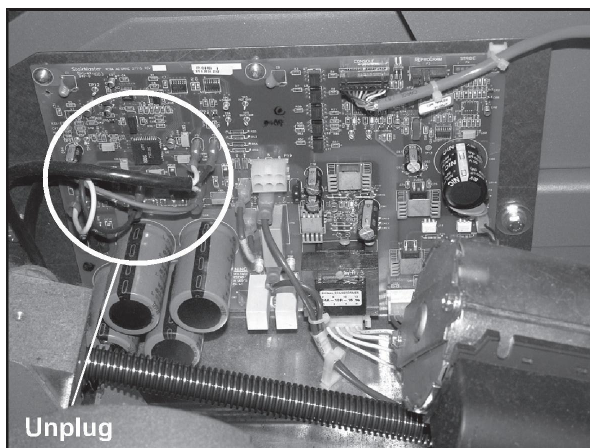


### 1.0 Remove the Treadmill Hood

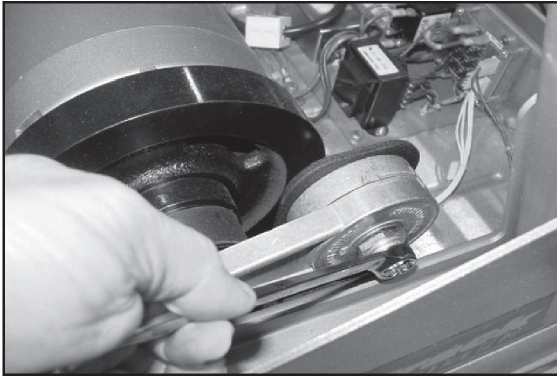
- 1.1 Turn the treadmill circuit breaker off, and unplug the treadmill power cord.
- 1.2 Remove the six (6) screws on the treadmill hood.
- 1.3 Lift off the hood.

### 2.0 Remove the Motor

- 2.1 Disconnect P5, P6, P7, P8, and P9 from the VSD board. (See appropriate wiring schematic on pages 46-48 for the location of where the plugs connect to the VSD board.)



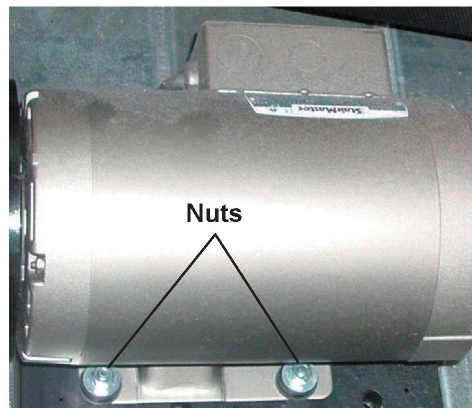
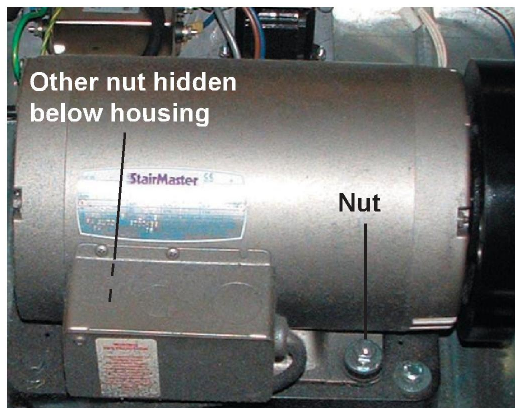
- 2.2** Place a 9/16 wrench on the head of the bolt mounting the Tensioner and turn counter clockwise until Tensioner loosens.



- b. Lift up on the Tension Wheel and slide the motor drive belt over pulley to remove.



- 2.3** Use a 13-millimeter open-end or socket wrench to remove the four (4) hex nuts securing the motor to the headframe, and pull the motor off of the headframe.



- 2.4** Remove the four (4) washers and rubber isolators from the motor mount studs. Note the arrangement of the isolator mounts.
- 2.5** Loosen the two (2) set screws fastening the flywheel/drive pulley to the motor shaft, and then remove the flywheel/drive pulley.

### 3.0 Install Motor

- 3.1 Install the new flywheel on the new motor shaft.
- 3.2 Inspect the rubber isolators for wear. If they are bad, replace them.
- 3.3 Slide the replacement motor onto the headframe motor mount studs.
- 3.4 Install the rubber isolators and washers onto the studs
- 3.5 Apply Loctite® to the motor mount studs.
- 3.6 Install the nuts on the motor mount studs and tighten. **Important:** Tighten the nuts until the lock washers flatten, then turn the nuts 1/2 turn further. **Do not** over-tighten the nuts.
- 3.7 Connect the five (5) wires from the motor to P5, P6, P7, P8, and P9 on the VSD board.

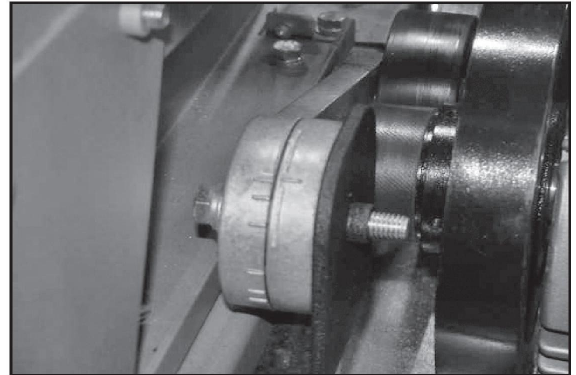
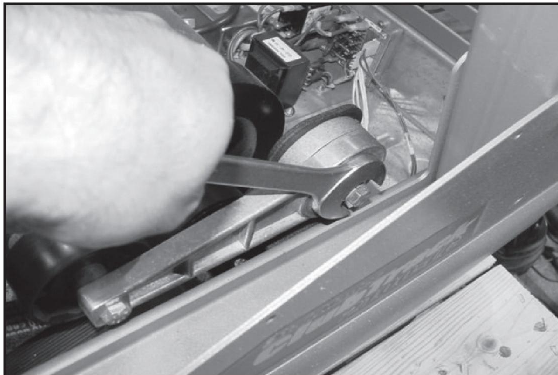
### 4.0 Align the Drive Belt

The new motor and flywheel must be aligned with the front roller pulley.

- 4.1 Use a straight-edged ruler placed on the outside of the front roller pulley to align the outside face of the motor drive pulley to within 0.020 inches (0.5mm) of the straight-edged ruler.
- 4.2 Tighten the two (2) set screws on the flywheel/drive pulley and tighten.

After alignment of the Front Roller and Flywheel, place belt on the Front Roller and Flywheel.

- 4.3 Place 5/16 wrench on nut of Tensioner and turn counter clockwise creating tension on the bent and hold. The top two notches should line-up.



- 4.4 Place the 9/16 wrench back on the head of the mounting bolt and turn clockwise, until the bolt tightens.
- 4.5 Replace the poly-V drive belt back onto the flywheel/drive pulley.
- 4.6 Slide the poly-V drive belt back under the tensioner.

### 5.0 Reinstall the Treadmill Hood

- 5.1 Install the treadmill hood over the motor compartment.
- 5.2 Install the six (6) screws in the treadmill hood and tighten.
- 5.3 Plug the AC power cord into the treadmill, and turn on the treadmill circuit breaker switch.