



**STRONG. SMART. BEAUTIFUL.**

## **CARE AND MAINTENANCE INSTRUCTIONS**

In order to maximize life span, and minimize down time, all MATRIX equipment requires regular cleaning, and maintenance items performed on a scheduled basis. This document contains detailed instructions on how to perform these items, the frequency which they should be done, and a check list to sign off each time service is completed for a specific machine. For more detailed instructions, service manuals are available for most models on our website at [www.matrixfitness.com](http://www.matrixfitness.com). Some basic tools and supplies will be necessary to perform these tasks which include (but may not be limited to):

- Metric Allen wrenches
- #2 Phillips head screwdriver
- Adjustable wrench
- Torque wrench (capability to read foot lbs, and inch lbs)
- Lint free cleaning cloths
- Teflon based spray lubricant (Super Lube Multi-Purpose recommended)
- Mild, water soluble, detergent – such as “Simple Green”, or other Matrix approved product
- Teflon based synthetic grease lubricant such as “Super Lube”, or other Matrix approved product
- Vacuum cleaner w/extendable hose and crevasse tool attachment

This booklet is divided into two categories – Cardio items, and Strength items. Each category is then further divided into a listing of individual machines that fall within their respective category. Please find the worksheets for any machines you may have in your facility, and keep them up to date as the required service/maintenance items are performed. It is critical that you also log the accumulated (total) amount of miles or running hours on the equipment each time service or maintenance is performed.

You may periodically receive addendums to this document, as the Matrix Technical Support Team identifies items that require specific attention.

## **CARDIO MACHINERY**

### **TREADMILLS**

#### **T3x, T3x-06, & T3xi-06 Maintenance Light**

A blue light on the console will turn on every 5000 miles to remind the owner that maintenance is needed. To reset this light, press INCLINE DOWN and SPEED DOWN for 3 seconds on 2005 or older units. Press INCLINE DOWN and SPEED UP for 3 seconds on 2006 or newer units.

# TREADMILLS - Continued

## Treadmill Daily Maintenance Items

- 1) Clean the entire machine using water and mild detergent such as “Simple Green”, or other Matrix approved solution (cleaning agents should be alcohol and ammonia free), including: console, handlebar/grip area, and running belt.
- 2) Check the Emergency Stop Button (Figure 1) and Safety Cord (Figure 2) for proper operation.



Figure 1



Figure 2

## Treadmill Monthly Maintenance Items

- 1) Inspect the power cord for damage, inspect hand grip areas, and inspect the Emergency Stop Button and Safety Cord.
- 2) Vacuum the floor beneath the unit to prevent dust or dirt building up which can affect the performance.
- 3) **It is especially important to check the running belt for tension after the first 30 days of usage. All new belts will stretch and belt “slippage” can be detected by users if the running belt does not have the proper tension.**  
To check the running belt for proper tension:
  - a. First center the belt. Start the treadmill at 6.0 mph. Turn the left rear roller screw clockwise to move the belt right (Figure 3) or the right rear roller screw clockwise to move the belt left (Figure 4). Make adjustments ½ turn at a time, and wait for at least a minute between adjustments for the belt to equalize.



Figure 3



Figure 4

# TREADMILLS - Continued

## Treadmill Monthly Maintenance - Continued

- b. Start the treadmill at 3.0 mph.
- c. Stomp down hard on the running belt with one foot. You should be able to make the running belt hesitate slightly.
- d. If you cannot make the running belt hesitate, it is too tight. Loosen the rear roller screws (turn counter-clockwise) by ½ turn or less on each side and retest.
- e. If you can make the running belt stop or hesitate for more than a fraction of a second, it is too loose. Tighten the rear roller screw by ½ turn or less on each side and retest.

## Treadmill Quarterly Maintenance Items

- 1) Remove the front plastic motor cover, and vacuum the entire inside area of the machine – be careful when working around the lower control board not to bump any wires or connections loose.
- 2) With the motor cover off, check the drive belt for visible wear, i.e., cracking, tears, etc. The drive belt should be replaced if there are any visible signs of damage. Also check the alignment of the drive belt. The drive belt should be aligned with the front roller pulley (Figure 5). Adjust the motor as needed to resolve alignment issues, the motor mounting screws holes are slotted (Figure 6).



Figure 5



Figure 6

- 3) With the motor cover off, start the treadmill and raise the incline setting to the maximum height. Turn the power switch off at the front of the machine to prevent it from lowering accidentally. Lubricate the incline motor Acme screw (Matrix recommends using Superlube brand grease with PTFE {Teflon} additive). Also lubricate the pins at the junction of the elevation motor and incline rack (Figure 8b).



Figure 7



Figure 8



Figure 8b

## **TREADMILLS - Continued** **Treadmill Bi-Annual Maintenance**

- 1) Remove wax build-up from the front and rear rollers of the machine (a flat screwdriver or a paint scraper / putty knife work best) (Figures 9 & 10).

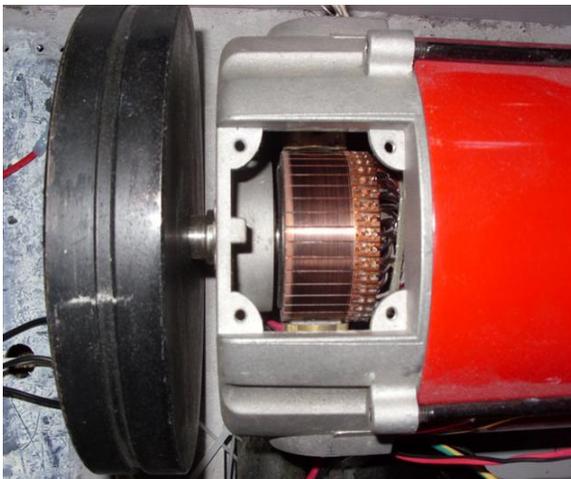


**Figure 9**

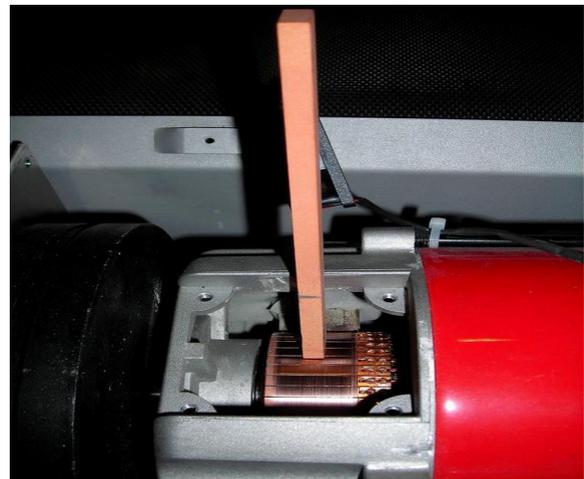


**Figure 10**

- 2) Inspect the underside of the running belt for damage – checking/cracking, glazed surface.
- 3) If the belt has damage or wear to it that warrants replacement, please note that the running deck must also be flipped when a new belt is installed. If the deck has previously been flipped, and no longer has an unused side available, it needs to be replaced when the new belt is installed. A new belt must ALWAYS be installed to run on a new deck surface in order to maximize the lifespan of both items.
- 4) During normal operating conditions, the running belt replacement and deck service may need to be done every 10,000 miles for T1x and T3x treadmills and 20,000 miles for T5x and T7x treadmills.
- 5) T1x, T1xe, T3x, T3x-06, & T3xi-06 UNITS ONLY – Clean the commutator on the drive motor. To do so:
  - a. Remove the front motor cover.
  - b. Remove the cooling fan from the motor (Figure 11).
  - c. Press a commutator stone (available upon request from Matrix Fitness Systems) to the commutator on the motor (Figure 12) and slowly turn the belt to clean the commutator.
- 6) T1x, T1xe, T3x, T3x-06, & T3xi-06 UNITS ONLY – Clean the motor brushes, replace if needed.



**Figure 11**



**Figure 12**

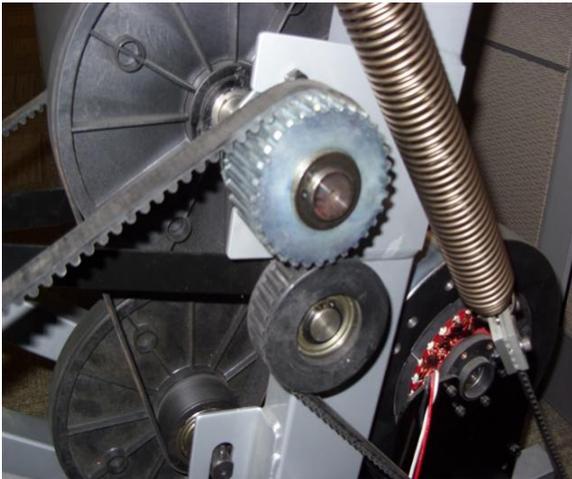
# **STEPPERS**

## **Stepper Daily Maintenance**

- 1) Clean the entire machine using water and mild detergent such as “Simple Green”, or other Matrix approved solutions (cleaning agents should be alcohol and ammonia free).
- 2) Vacuum the floor beneath the unit to prevent dust or dirt building up which can affect the performance.

## **Stepper Bi-Annual Maintenance**

- 1) Remove the covers from the unit. Remove the 3 belt pulleys from each side (Figures 13 & 14). Clean and lubricate the pulleys, then reinstall. (Matrix recommends using Superlube brand grease with PTFE {Teflon} additive).



**Figure 13**



**Figure 14**

- 2) Check the belts for damage, alignment, and proper tension. Replace as needed.
- 3) Check the pedal foot pads for damage or wear. Replace as needed.

# **ELLIPTICAL MACHINES**

## **Elliptical Daily Maintenance**

- 1) Clean the entire machine using water and mild detergent such as “Simple Green”, or other Matrix approved solutions (cleaning agents should be alcohol and ammonia free).

## **Elliptical Quarterly Maintenance**

- 1) Check all connecting joint area bolts for tightness.
- 2) Vacuum the floor beneath the unit to prevent dust or dirt building up which can affect the performance.
- 3) Insure that there is little, or no free play at all, in the joint assemblies once the bolts have been tightened. Installation of washer kits may be required if free play does not come out from tightening bolts.
- 4) Check the pedal foot pad for damage or wear. Replace as needed.

- 5) Remove the plastic covers (Figure 15), and lubricate the ball joint (Figure 16) where the Link Arm and Vertical Handlebar join together. A grease gun, with a needle fitting adapter is required for this (Matrix recommends using Superlube brand grease with PTFE {Teflon} additive).



Figure 15



Figure 16

- 6) *Ascent Trainers only* – Remove the back plastic covers (Figures 17 & 18), and lubricate the Acme screw on the left and right incline motors (Matrix recommends using Superlube brand grease with PTFE {Teflon} additive).



Figure 17



Figure 18

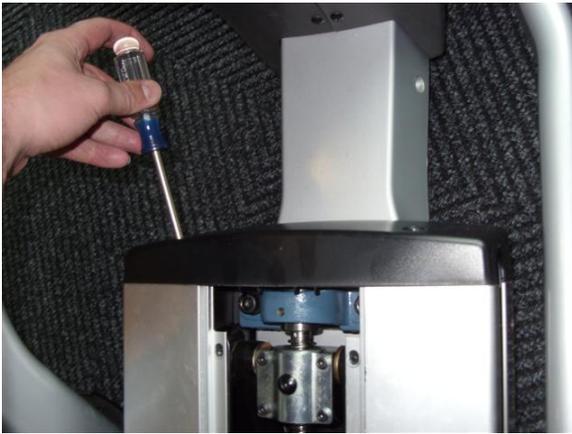
- 7) *15X Incline Ellipticals only* – Start the machine and raise the incline setting to the maximum height. Turn the power switch off at the front of the machine to prevent the machine from lowering accidentally. Remove the rear stabilizer cover (Figures 19 & 20), the rear roller end cap (Figure 21) and the center cover (Figure 22). Lubricate the incline motor Acme screw under the center of the frame (Matrix recommends using Superlube brand grease with PTFE {Teflon} additive).



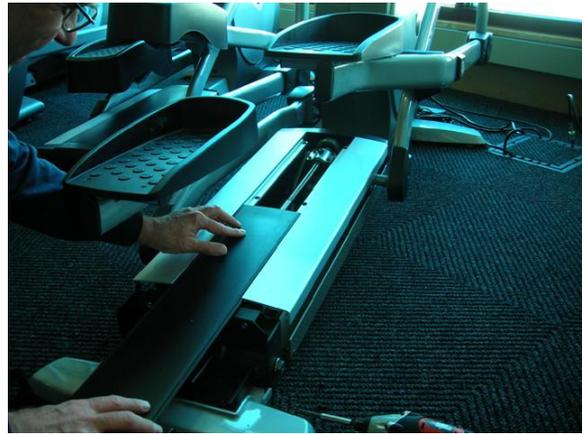
Figure 19



Figure 20



**Figure 21**



**Figure 22**

## **Elliptical Yearly Maintenance**

- 1) Remove the front round covers and check the belts for damage, alignment, and proper tension. Replace if needed.

## **EXERCISE BIKES**

### **Exercise Bikes Daily Maintenance**

- 1) Clean the entire machine including the foot pedals using water and mild detergent such as “Simple Green”, or other Matrix approved solutions (cleaning agents should be alcohol and ammonia free).

### **Exercise Bikes Monthly Maintenance**

- 1) Vacuum the floor beneath the unit to prevent dust or dirt building up which can affect the performance.
- 2) Check the pedal straps for damage. Replace as needed.

### **Exercise Bikes Quarterly Maintenance**

- 1) Check that pedal and crank assembly are tight, with no free play or wobble in them.
- 2) Check the condition of the seat upholstery; make sure that the seat adjustment mechanism is operating smoothly.

### **Exercise Bikes Yearly Maintenance**

- 1) Open the front covers and check the belts for wear and tension, replace if needed.

# **STRENGTH EQUIPMENT**

## **Strength Daily Maintenance**

- 1) Clean the entire machine using water and mild detergent such as “Simple Green”, or other Matrix approved solutions (cleaning agents should be alcohol and ammonia free). For weight stack shields use glass cleaner such as “Windex”.

## **Strength Weekly Maintenance**

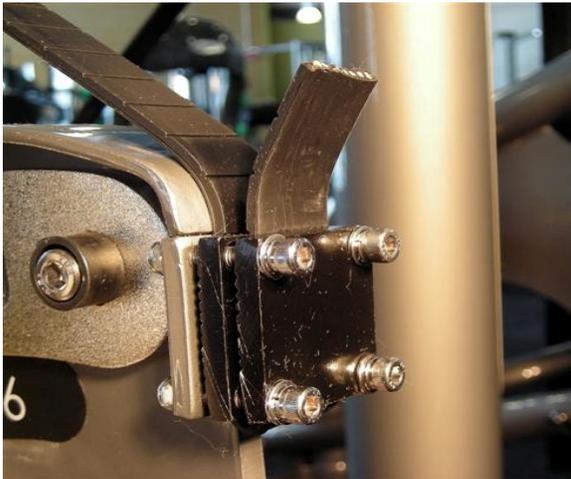
- 1) Visibly inspect the belt and cable assemblies for signs of wear – tearing, frayed edges, cracked or missing jacketing. Immediately replace any belt or cable with any apparent damage to it. Any belt replacement must be done using the torque specifications below.

### **For belting with the “fold over” type clamp (Figure 23), use this specification:**

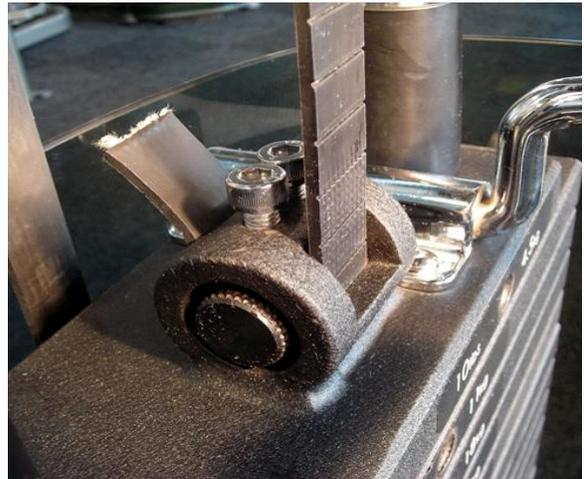
The bolts (with blue Loc-tite – this is important as it acts as a lubricant and is related to the torque spec) should be tightened to 40 inch pounds using a torque wrench. The bolts should be tightened in a uniform pattern.

### **For belting with the “barrel” type clamp (Figure 24), use this specification:**

The bolts (with blue Loc-tite – this is important as it acts as a lubricant and is related to the torque spec) should be tightened to 25 foot pounds using a torque wrench. The bolts should be tightened in a uniform pattern.



**Figure 23**



**Figure 24**

## **Strength Monthly Maintenance**

- 1) Clean and lubricate the weight stack guide rods. Use a Teflon based spray lube such as “Super Lube Multi-Purpose”, or any other Matrix approved lubricant.
- 2) Check any adjustable seat/pad mechanism for proper locking pin operation, and lubricate the sliding mechanism.

## **Strength Quarterly Maintenance**

- 1) Check the hardware to insure that all accessible fastener items are secured snugly on the equipment.



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**PREVENTATIVE MAINTENANCE CHECKLIST**

**Facility:** \_\_\_\_\_

<b>Make:</b>	<b>Model:</b>	<b>S/N</b>
<b>Location:</b>	<b>Technician:</b>	<b>Date:</b>

- |                                |                                    |                                |
|--------------------------------|------------------------------------|--------------------------------|
| Inspect power cords _____      | Check resistance system _____      | Clean/lube guide rods _____    |
| Check E-stop cord/button _____ | Lubricate pivot points _____       | Inspect belt/cable assy. _____ |
| Vacuum/clean under cover _____ | Check connecting joints _____      | Check locking pins _____       |
| Check motor drive belt _____   | Remove covers, check belts _____   | Check pulleys _____            |
| Check running belt _____       | Check pedal & crank _____          | Inspect upholstery _____       |
| Flip/replace deck _____        | Check/lube seat adjustment _____   | Check/tighten hardware _____   |
| De-wax rollers _____           | Verify electronics operation _____ | Lubricate Acme screw _____     |

Notes/comments \_\_\_\_\_  
 \_\_\_\_\_

<b>Make:</b>	<b>Model:</b>	<b>S/N</b>
<b>Location:</b>	<b>Technician:</b>	<b>Date:</b>

- |                                |                                    |                                |
|--------------------------------|------------------------------------|--------------------------------|
| Inspect power cords _____      | Check resistance system _____      | Clean/lube guide rods _____    |
| Check E-stop cord/button _____ | Lubricate pivot points _____       | Inspect belt/cable assy. _____ |
| Vacuum/clean under cover _____ | Check connecting joints _____      | Check locking pins _____       |
| Check motor drive belt _____   | Remove covers, check belts _____   | Check pulleys _____            |
| Check running belt _____       | Check pedal & crank _____          | Inspect upholstery _____       |
| Flip/replace deck _____        | Check/lube seat adjustment _____   | Check/tighten hardware _____   |
| De-wax rollers _____           | Verify electronics operation _____ | Lubricate Acme screw _____     |

Notes/comments \_\_\_\_\_  
 \_\_\_\_\_

\*MAKE ADDITIONAL COPIES AS NEEDED\*



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**PREVENTATIVE MAINTENANCE CHECKLIST**

**Facility:** \_\_\_\_\_

<b>Make:</b>	<b>Model:</b>	<b>S/N</b>
<b>Location:</b>	<b>Technician:</b>	<b>Date:</b>
Inspect power cords _____	Check resistance system _____	Clean/lube guide rods _____
Check E-stop cord/button _____	Lubricate pivot points _____	Inspect belt/cable assy. _____
Vacuum/clean under cover _____	Check connecting joints _____	Check locking pins _____
Check motor drive belt _____	Remove covers, check belts _____	Check pulleys _____
Check running belt _____	Check pedal & crank _____	Inspect upholstery _____
Flip/replace deck _____	Check/lube seat adjustment _____	Check/tighten hardware _____
De-wax rollers _____	Verify electronics operation _____	Lubricate Acme screw _____
Notes/comments _____		
_____		

<b>Make:</b>	<b>Model:</b>	<b>S/N</b>
<b>Location:</b>	<b>Technician:</b>	<b>Date:</b>
Inspect power cords _____	Check resistance system _____	Clean/lube guide rods _____
Check E-stop cord/button _____	Lubricate pivot points _____	Inspect belt/cable assy. _____
Vacuum/clean under cover _____	Check connecting joints _____	Check locking pins _____
Check motor drive belt _____	Remove covers, check belts _____	Check pulleys _____
Check running belt _____	Check pedal & crank _____	Inspect upholstery _____
Flip/replace deck _____	Check/lube seat adjustment _____	Check/tighten hardware _____
De-wax rollers _____	Verify electronics operation _____	Lubricate Acme screw _____
Notes/comments _____		
_____		

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