Cleaning and performing Preventative Maintenance will not only help extend the life of your equipment but will increase member loyalty by keeping your equipment clean and safe!
Cleaning Your Matrix Equipment

In order to maximize life span, and minimize down time, all MATR IX equipment requires regularly scheduled cleaning. Below are recommendations to when to clean your equipment and what to clean it with.

Recommended Cleaners and Supplies: *(pictures on page 3)*
- Mild dish soap and water mixture in spray bottle (10:1 water to soap)
- Vinegar and water mixture in spray bottle (20:1 water to vinegar)
- Super Lube Multi Purpose Synthetic Lubricant with Syncolon® (PTFE) Aerosol
- WD-40 for Indoor Cycles ONLY
- PW-3 Pedal Wrench - Part#: ZMS4001254
- Corrosion Block (for iPod connectors) See page 4-5
- Monster Screen Cleaner (7xi & 7xe touch screen console screens)
- Lint free 100% cotton cleaning cloths or Microfiber cleaning cloths
- Vacuum/Shop-vac with extendable hose and soft brush attachment

Other recommended lubricants: Tri-Flow with PTFE and Slick 50 with PTFE (see pictures on next page)

Gym Wipes are okay for customers to use as they will not leave over spray on your product yet will clean/disinfect.

The soap/water and vinegar/water solutions recommended above are okay to leave on your floor for customer to use.

**Note:** Vinegar is a natural and safe disinfectant that will not cause corrosion.

**CAUTION**

**DO NOT USE ANY PRODUCT CONTAINING:**

- Petroleum, Hydrogen Peroxide, Ammonia, Bleach and/or Alcohol

We recommend that you do NOT allow customers to use spray bottles with chemical solutions to clean the equipment. If the cleaner is sprayed directly on the equipment or overspray is present, it may cause your equipment to rust and/or cause damage to console overlays.
10:1 water to mild soap mixture

20:1 water to vinegar mixture

Part #: ZMS4001373

Part#: ZMS4001372

Part#: ZMS4001374

Other brands with “PTFE” (Teflon)

Monster Screen Cleaner
iPod Cable – Evaluation Guidelines

This guide is to help identify where the corrosion usually occurs and how to prevent future occurrences. Please note that in cases of Light & Heavy corrosion, the cable will have to be replaced before beginning the preventive maintenance routine.

Severe

No Corrosion

6-12 Months

2-6 Months

1-4 Weeks

Occurrence

(On newly installed machine or iPod Cable)

No Action Required

No Action Required

No Action Required

Continue to Monitor

Continue to Monitor

Continue to Monitor

No Corrosion

Replace as Needed

Replace as Needed

Replace as Needed

Apply Corrosion Inhibitor Quarterly

Apply Corrosion Inhibitor Monthly

Apply Corrosion Inhibitor Bi-Weekly

Quarterly Preventive Maintenance

Monthly Preventive Maintenance

Weekly Preventive Maintenance

Heavy Corrosion

Light Corrosion

Pins of a New iPod Cable

Two Adjacent Pins Corroded @ Two or More Distinct Locations

Multiple Adjacent Pins Corroded

PM.v7.9.2014
iPod Cable – Preventive Maintenance Guidelines

Message for Equipment Users

A message to instruct users to return cable to its proper location may also be required. See below for two possible examples using a label maker.

**STEP 1:** Use Air Duster to blow and dry away any moisture on the iPod connector pins.

**STEP 2:** Use rubbing alcohol swabsticks to clean the metallic connector housing and pins. Repeat **STEP 1** to dry excess alcohol.

**STEP 3:** Spray an even coat of Corrosion Inhibitor over the connector’s metallic housing and pins. Follow instructions on spray can for adequate drying.
Treadmills

Spray the recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

Weekly Preventative Maintenance:
1. Check the unit for stability and adjust leveling feet if necessary
2. Inspect the following for damage:
   a. Power cord
   b. Hand grip area
   c. Emergency Stop button and safety cord
3. T5 & T7 units only: Check to ensure the power cord retaining bracket is securely fastened and not damaged. (Figure 1)

Weekly Cleaning:
1. With a clean dry 100% lint free cloth, wipe any dust and dirt from the sides of the running deck between the running belt and side rails. (Figure 2)
2. With a clean dry 100% lint free cloth, wipe the dust from the top of the motor cover. (Figure 3)
3. With a clean dry 100% lint free cloth and recommended cleaning solution, wipe down the entire console area including the hand grips and hand rails.
   a. 7xi & 7xe “touch screen” consoles – we recommend using Monster Screen Cleaner and a microfiber cloth on the screen only

Monthly Preventative Maintenance:
1. Check the alignment of the running belt. It should be centered on the running deck.
   a. To center the belt, set the treadmill speed to 6 mph. Turn the left rear roller bolt clockwise to move the belt right or the right rear roller bolt clockwise to move the belt left. Make adjustments ½ turn at a time and wait for at least 1 minute between adjustments for the belt to walk in either direction. Repeat until belt is centered keeping in mind every turn clockwise is also tightening the belt and every turn counter clockwise is loosening the belt. (Figure 4)
2. Check the tension of the running belt.
   a. To check the tension of the belt, set the treadmill speed at 3 mph. While walking in the center of the belt, stomp down hard with one foot. You should be able to make the belt hesitate slightly.
      i. If you cannot make it hesitate while performing a “stomp test”, it is too tight. Loosen the rear roller bolts by turning them counter clockwise ¼ or ½ turn at a time on each side. Redo the stomp test and continue to loosen if necessary.
      ii. If the belt stops while performing a stomp test, the belt is too loose. Tighten the rear roller bolts by turning them clockwise ¼ to ½ turn at a time on each side. Redo the stomp test and continue to tight if necessary.

PLEASE NOTE: If there is any damage to the running deck or belt, replace with new. If you have a new deck or a new side of the deck (you flip it), you also need a new belt.
Monthly Cleaning:
1. Vacuum under and around the treadmill. If you need to move the unit, unplug it first.
2. Vacuum the air vent on the front of the unit. *(Figure 5)*
3. Units with console iPod connectors (7xi, 7xe, 7x & 5x): apply Corrosion Block to the metal part of the cable *(Figure 6)*

Quarterly Preventative Maintenance:
1. All 7XE Consoles should have the touch screens calibrated.
   a. Enter 3001 Enter > Test > Touch Calibration
2. With the unit unplugged, remove the motor cover and vacuum the entire inside area of the machine. Be careful not to bump any wires or connections loose.
3. While the motor cover is off, inspect the drive belt for visible wear. The drive belt should be replaced if there are any signs of damage.
4. While the motor cover is off, plug the unit in and raise the elevation to maximum height. Turn the power switch off once it has reached this point. This will keep the machine elevated while eliminating the chance of it lowering on you. While the unit is in the elevated position, perform the following steps:
   a. Clean and lubricate the ACME screw on the elevation motor using Super Lube with PTFE tube grease. *(Figure 8 and 8a)*
   b. Clean and lubricate the pins and surface are the pins where the elevation motor and elevation rack connect. *(Figure 9)*
   c. Clean and lubricate (Super Lube aerosol works best) the pivot joints on both sides of the elevation rack.

Quarterly Cleaning:
1. Unplug the unit. Remove the motor cover. Using a vacuum/shop vac with a soft brush extension, vacuum out the dust and dirt from the motor, MCB, fan and surrounding areas. Be careful not to hit any of the wire connections.

Bi-Annual Preventative Maintenance: *(If regular maintenance and cleaning is performed, this step may not be necessary. Additional charges may apply if this step is necessary.)*
1. Inspect the front and rear belt rollers for wax build up. If there is excess build up, you will be able to visually see and/or feel bumps on the rollers. *If necessary,* remove the front and rear roller and scrap clean using a plastic putty knife. DO NOT use any metal objects to scrape the rollers as this will cause damage to the roller surface. *(Figure 7)*
2. Inspect the underside of the running belt for damage i.e. glazing, burning (dark brown in color), cracking, etc.

**Video Instruction**

1. 5 & 7 series treadmill running deck and belt replacement
Elliptical & Ascent Trainers

Spray the recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

Weekly Preventative Maintenance:
1. Check the unit for stability and adjust leveling feet if necessary

Weekly Cleaning:
1. Ellipticals with roller wheel track: With a clean dry 100% lint free cloth, wipe any dust and dirt from out of the wheel track. (Figure 1)
2. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire frame so it is free of dust, dirt and sweat.
3. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire console area including the hand grips and hand rails.
   a. 7xi & 7xe “touch screen” consoles – we recommend using Monster Screen Cleaner and a microfiber cloth on the screen only

Monthly Preventative Maintenance:
1. Check all connecting joint areas for tightness of bolt assemblies.

Monthly Cleaning:
1. Vacuum under and around the Elliptical/Ascent Trainer. If you need to move it, unplug it first.
2. Vacuum debris out of the foot pedals. Remove the rubber foot pads and clean under them if applicable. (Figure 2)
3. Units with console IPOd connectors (7xi, 7xe, 7x & 5x): apply Corrosion Block to the metal part of the cable (Figure 3)

Quarterly Preventative Maintenance:
1. All 7XE Consoles should have the touch screens calibrated.
   a. Enter 3001 Enter > Test > Touch Calibration
2. Remove plastic covers, and lubricate the ball joint where the Link Arm and Handlebar join together. Use your finger to apply grease to the ball bearing. Matrix recommends using Super Lube brand grease with PTFE (Teflon) additive. (Figure 4)
3. (Ascent Trainer only) Remove the covers, and lubricate the Acme screw on the incline motor (Matrix recommends using Super Lube brand grease with PTFE (Teflon) additive).
4. Remove the front round covers and check the belts for damage, alignment, and proper tension. Replace the belt if there is any sign of damage
Elliptical & Ascent Trainer Pictures

Figure 1

Figure 2

Figure 3

Figure 4
Upright, Recumbent & Hybrid Bikes

Spray the recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

Weekly Preventative Maintenance:
1. Check the unit for stability and adjust leveling feet if necessary
2. Check the pedal straps for damage.
3. Adjust the leveling feet if equipment rocks or wobbles.

Weekly Cleaning:
1. *Recumbent bikes only* - 100% lint free cloth, wipe any dust and dirt from out of the seat wheel track. *(Figure 1)*
2. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire frame so it is free of dust, dirt and sweat.
3. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire console area including the hand grips.
   a. 7xi & 7xe “touch screen” consoles – we recommend using Monster Screen Cleaner and a microfiber cloth on the screen only

Monthly Preventative Maintenance:
1. Inspect the console, seat, pedals, and shrouds for damage.
2. Tighten the pedals onto their respective cranks using a PW-3 pedal wrench. *(Figure 4)*
3. Check the seat for looseness. Tighten the seat rollers if needed.

Monthly Cleaning:
1. Vacuum under and around the bike. If you need to move it, unplug it first.
2. *Hybrid bikes only* – using Super Lube aerosol, spray on a clean 100% cotton cloth and wipe down the rods that the seat slide up and down on. *(Figure 2)*
3. Units with console IPod connectors (7xi, 7xe, 7x & 5x): apply Corrosion Block to the metal part of the cable *(Figure 3)*

Quarterly Preventative Maintenance:
1. All 7XE Consoles should have the touch screens calibrated.
   a. Enter 3001 Enter > Test > Touch Calibration
2. Remove the front shrouds and check the belt for damage, alignment, and proper tension.
ClimbMill

Spray a recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

As Needed:
1. If the unit has a Control Zone beneath the stairs, empty the dust tray. If you need to move it, unplug it first. *(Figure 1)*

Weekly Preventative Maintenance:
2. Check the unit for stability and adjust leveling feet if necessary *(Figure 2)*

Weekly Cleaning:
1. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire frame including the stairs so it is free of dust, dirt and sweat.
2. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire console area including the hand grips and hand rails.
   a. 7xi & 7xe “touch screen” consoles – we recommend using Monster Screen Cleaner and a microfiber cloth on the screen only

Monthly Preventative Maintenance:
1. Check all connecting joint areas for tightness of bolt assemblies.
2. Remove the maintenance cover (user right side) and check the fans on the drive system for function.
3. Remove the maintenance cover (user right & left side) and check the chain for damage, alignment and proper tension.
4. On units with a Control Zone (CZ), check to ensure the CZ is working properly by walking on the unit then stepping on the CZ. The unit should “Pause” similar to an emergency stop on a treadmill.

Monthly Cleaning:
1. Vacuum under and around the unit. If you need to move it, unplug it first. Make sure to reset the casters after moving back into position to stabilize the unit. *(Figure 3)*
2. Units with console iPod connectors (7xi, 7xe, 7x & 5x): apply Corrosion Block to the metal part of the cable *(Figure 4)*

Quarterly Preventative Maintenance:
1. All 7XE Consoles should have the touch screens calibrated.
   a. Enter 3001 Enter > Test > Touch Calibration
2. Clean and grease (if needed) the drive chains using synthetic motorcycle chain grease. Super Lube tube grease will also work fine. *(Figure 5)*

Quarterly Cleaning:
1. Remove side access panels and vacuum out the inside of the unit. *(Figure 6)*
ClimbMill Pictures

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6
Stepper

Spray a recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

**Weekly Preventative Maintenance:**
1. Check the unit for stability and adjust leveling feet if necessary
2. Check the pedals for damage.

**Weekly Cleaning:**
1. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire frame including the pedals so it is free of dust, dirt and sweat.
2. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire console area including the hand grips and hand rails.
   b. 7xi & 7xe “touch screen” consoles – we recommend using Monster Screen Cleaner and a microfiber cloth on the screen only

**Monthly Preventative Maintenance:**
1. Inspect the console, pedals, handlebars, and shrouds for damage.

**Monthly Cleaning:**
1. Vacuum under and around the unit. If you need to move it, unplug it first.
2. Units with console IPod connectors (7xi, 7xe, 7x & 5x): apply Corrosion Block to the metal part of the cable *(Figure 1)*

**Quarterly Preventative Maintenance:**
1. All 7XE Consoles should have the touch screens calibrated.
   a. Enter 3001 Enter > Test > Touch Calibration
2. Remove the front shrouds and remove the 3 belt pulleys from each side. Clean and lubricate the pulley axle with Super Lube PTFE. Then re-assemble the unit. *(Figure 2 and 3)*
3. While the shrouds are off check the belts and springs for damage and the belt tension. Replace the belt/s if there are any signs of damage.
Stepper Pictures

Figure 1

Figure 2

Figure 3
Rower

Spray a recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

**Weekly Preventative Maintenance:**
1. Inspect handlebar and rope for damage. *(Figure 1)*
2. Check to make sure unit is level and adjust leveling feet if needed.

**Weekly Cleaning:**
1. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire frame including the seat and seat track so it is free of dust, dirt and sweat. *(Figure 2)*
2. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire console

**Monthly Preventative Maintenance:**
1. Inspect the console, foot pedals, rope, handlebar and shrouds for damage.
2. Use the machine and listen and feel for proper performance.

**Monthly Cleaning:**
1. Vacuum under and around the unit.
2. Vacuum off the flywheel so they are free of dust *(Figure 3)*

**Quarterly Preventative Maintenance:**
1. Using a flashlight, inspect inside the flywheel shrouds for dust build up. Remove shrouds and vacuum if needed. *(Figure 3)*
Rower Pictures

Figure 1

Figure 2

Figure 3
E-Series (IC2), S-Series (IC3) Indoor Cycles

Weekly Preventative Maintenance:
1. Check unit to ensure it is level. If not level, adjust the 4 leveling feet under the unit until level.
2. Using an 8mm Allen socket, check/tighten the crank arm bolts as tight as possible. If they are coming loose, remove the bolt, apply blue loc-tite to the bolt threads and retighten. (Figure 1)
3. Using a PW-3 pedal wrench, check/tighten both pedals as tight as possible. If you are able to get any movement on the pedal, you must remove the pedal, reapply blue loctite and install the pedal. (Figure 2)
4. Check the brake pad for lubrication. If it is dry, soak the pad in WD-40. This can be done by either; removing the pad and placing it in a dish of WD-40 or spraying WD-40 directly on the brake pad. You know the brake pad is completely soaked by applying the brake or applying tension and seeing the pad darken in color. (Figure 6)
5. If applicable: on 2012 and older product - check computers and sensor to ensure they are getting accurate RPM readings. If not, check the placement of the magnet on the flywheel, check to ensure the dip switch on both the computer and sensor match and/or replace the batteries in the computer and sensor.
   a. To reset the computer, remove the batteries and hold down the “sun” and “wave” buttons at the same time for 10 seconds. Reinstall the batteries and test.

Weekly Cleaning:
1. With a clean dry 100% lint free cloth and WD-40, wipe down the entire frame including the handlebar posts and seat posts so it is free of dust, dirt and sweat. Make sure to clean the flywheel as well.

Bi-weekly Preventative Maintenance:
1. Check the positioning of the seat and handlebar slide mechanism handles. If they are not in the correct position, while in the locked position, remove the bolt on the top of the handle using a 4mm ball-ended allen wrench. Remove handle and position properly according to diagram on the slide and reinstall the bolt. (Figure 3)

Bi-weekly Cleaning:
1. Loosen the seat post and handlebar sliding mechanism. With a clean dry 100% lint free cloth wipe the slide mechanism area clean of dirt. Once clean, spray the area with WD-40 and wipe the excess with a lint free cloth. (Figure 4)
2. Loosen the all the adjustment knobs. With a clean dry 100% lint free cloth and WD-40, pull the knob to expose the threads and spray with WD-40. (Figure 5)
3. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the seat and handlebars.

Monthly Preventative Maintenance:
1. Remove the seat and handle bar posts. Wipe clean and apply a light spray of Super Lube on a cloth then wipe on the seat and handlebar posts.

Monthly Cleaning:
1. Vacuum under and around the bike.
Video Instruction
1. Brake pad lubrication
   http://www.youtube.com/watch?v=ozVnxWmPCfQ&feature=youtu.be
2. Pedal installation
   http://www.youtube.com/watch?v=rGlYzYfHdw&feature=youtu.be
3. Computer set up
   https://www.youtube.com/watch?v=RHtlxUx4Fg

Indoor Cycle Pictures

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6
IC7 and IC5 Indoor Cycles

Please only use the acid- and solvent-free maintenance and care agent (e.g. Diluted Simple Green for a cleaner and Super Lube as a lubricant). Always use a soft cloth. Spray the cloth and not directly on the unit.

**Daily Preventative Maintenance:**
1. Make sure that the Indoor Cycle is level and does not rock

**Daily Cleaning:**
1. The Indoor Cycle must be regularly cleaned after each use for reasons of hygiene.
   Ensure that there are sufficient soft cloths or paper towels and maintenance and disinfection agent available. First disinfect the saddle and handlebars with a suitable agent and then wipe all bodily residues off the entire Indoor Cycle.

**Weekly Preventative Maintenance:**
1. Using an 8mm Allen socket, check/tighten the crank arm bolts as tight as possible. If they are coming loose, remove the bolt, apply blue loc-tite to the bolt threads and retighten.
2. Using a PW-3 pedal wrench, check/tighten both pedals as tight as possible. If you are able to get any movement on the pedal, you must remove the pedal, reapply blue loctite and install the pedal.
3. On the IC7 Indoor Cycles - check consoles and sensor to ensure they are getting accurate RPM readings. Perform a brake and offset calibration if necessary.

**Weekly Cleaning:**
1. Depending on how often the Indoor Cycle is used, it must be extensively cleaned once a week. To do this, spray a maintenance spray onto a soft cloth and clean all plastic parts, the entire flywheel, exposed framework parts including stabilizers and the plastic casing.
   a. Never spray the maintenance spray directly onto the flywheel, as this could cause the drive belt to slip through (belt slip).

**Bi-Weekly Preventative Maintenance:**
1. **Emergency brake:** To ensure operating safety, the emergency brake must be regularly checked to make sure it is functioning properly. To do this, press down the red emergency brake handle whilst pedaling. When functioning optimally, it should produce an immediate braking effect and bring the flywheel to a complete standstill. The flywheel is only released again by the emergency braking function after coming to a complete standstill and when the pressure is removed from the pedals.

2. **Saddle adjustments:** To maintain the easy adjustment, the vertical and horizontal saddle posts must be regularly cleaned and lubricated. To do this, position the vertical saddle post in the uppermost position, spray with maintenance spray and rub down the entire exterior surfaces including the horizontal post with a soft cloth. Clean sweat residues off the contact surfaces of the horizontal saddle post beforehand and if necessary apply a small amount of lithium/silicone grease. Also apply some lithium/silicone grease as required to the clamp mechanism of the clamping lever of the horizontal post.

3. **Handlebars:** To maintain the easy adjustment of the handlebar posts, the vertical and horizontal handlebar posts must be regularly cleaned and lubricated. To do this, position the handlebars in the uppermost position, spray the handlebar posts with maintenance spray and rub down the entire
exterior surfaces including the horizontal post with a soft cloth. Clean sweat residues off the contact surfaces of the horizontal handlebar post beforehand and if necessary apply a small amount of lithium/silicone grease. Also apply some lithium/silicone grease as required to the clamp mechanism of the flip lever of the horizontal post.

Monthly Preventative Maintenance:
1. **Connecting elements:** During the course of regular maintenance and care procedures, all bolts, nuts etc. on the Indoor Cycle must be checked for firm seating and function, and parts showing wear or damage (saddle, pedal teeth, pedals, SPD system) replaced.

2. **Vertically adjusting the handlebars and saddle:** To ensure the easy adjustment of the vertical handlebar and saddle posts, it is recommended that you check the clamping mechanism and if necessary apply a small amount of lithium/silicone grease to the vertical clamping mechanism of the handlebar posts and saddle posts.

**Video Instruction**
1. IC7/IC5 Indoor Cycle Horizontal Seat Post Adjustment
   http://youtu.be/Wlwly8y0PpTg

2. IC7/IC5 Indoor Cycle Horizontal Handlebar Adjustment
   http://youtu.be/ufGHgE8PSzo

3. IC7/IC5 Vertical Handlebar Adjustment
   http://youtu.be/POzb0jQecJ4

4. Console Calibration
   http://youtu.be/Kh8r9RqF8q8
MyRide

Spray a recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

Weekly Cleaning:
1. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire frame so it is free of dust, dirt and sweat.
2. Power down the unit. We recommend using Monster Screen Cleaner and a microfiber cloth, wipe down the touch screen monitor.

Monthly Preventative Maintenance: (MyRide VX ONLY)
1. If unit is NOT plugged into a live Ethernet port (must be connected to the internet), please connect and recycle the power. This will automatically search for and download any software versions.
Krank Cycles

Spray a recommended cleaning solution onto the cloth. NEVER spray directly onto the equipment. Make sure to wipe surfaces dry.

Weekly Preventative Maintenance:
1. Check normal functions of resistance and pivot points.

Weekly Cleaning:
1. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the entire frame and base so it is free of dust, dirt and sweat.
2. With a clean dry 100% lint free cloth and a recommended cleaning solution, wipe down the seat.

Monthly Preventative Maintenance:
1. Check brake pad for wear and lubrication.
   a. Remove the lower inside plastic cover by removing 6 socket head cap screws with a 3mm allen key wrench surrounding the flywheel to access the leather brake pad. *(Figure 1)*
   b. Check brake pad for signs of wear and the presence of lubrication. If the pad requires lubrication, adjust the resistance knob so the pad is slightly touching the flywheel. Then slowly rotate the flywheel with one hand while applying a small amount of 3 in 1 oil on the flywheel just behind (A) the brake pad. *(Figure 2)*
2. Check and tighten the screws on the crank arms, adjustment knobs and levers, water bottle holder and plastic covers

Monthly Cleaning:
1. Vacuum under and around the cycle.

Semi-Annually Preventative Maintenance:
1. Lubricate the drive chains.
   a. Remove the right crank arm by removing 5 socket head cap screws with a 4mm allen key wrench. Then remove the upper outside plastic cover by removing 5 socket head cap screws with a 3mm allen key wrench. The removed both of the lower plastic covers by removing 9 socket head cap screws with a 3mm and 5mm allen key wrench. *(Figure 3)*
   b. Thoroughly wipe down around all internal components and look for signs of wear or damage.
   c. Lubricate both the upper and lower drive chains with lithium chain grease.
   d. Reinstall the covers and crank arm
   e. Test
Krank Cycle Pictures

Figure 1

Figure 2

Figure 3