



**LIFE FITNESS**

FAMILY OF BRANDS



*For additional Life Fitness  
service information, our  
Contact Center is available*

*at*

**1-888-PLANET5**

**(888-752-6385),**

[planetfitness@lifelife.com](mailto:planetfitness@lifelife.com)

*or the PF Microsite at*

[pf.lifelife.com](http://pf.lifelife.com)

*Username: planetfitness*

*Password: pfnolunks*



**LIFE FITNESS**

FAMILY OF BRANDS



# Technical Reference Handbook

*Life Fitness*

**HAMMER  
STRENGTH**

**SCYBEX**



TEAM ICG

**SCIFIT**

Global Technical Training Organization

Please reference the **PF Microsite** for additional Life Fitness service information or for information on training courses and class scheduling.

[pf.lifefitness.com](http://pf.lifefitness.com)

**Username: planetfitness**

**Password: pfnolunks**



### Diagnostic Nav. Key Combinations

KEY COMBINATIONS	DIAGNOSTICS NAVIGATION EFFECT
Weight, Weight, Weight, Weight, Weight, Stop	Displays software version #. Press Go button within timeout window to return to Attract.
R-Up, R-Down, R-Up, R-Down, Time	Starts a software update ( lfupd or ulmage file ) - Updates WiFi network if WiFi config file is found
R-Up, R-Down, R-Up, R-Down, Units	Installs firmware updates from USB stick (duplo_app.bin)
Stop, Stop, Stop, R-Down, R-Down, R-Down	Immobilize the console (repeat to un-Immobilize)
Time, Time, Time, Time, Time, Stop	Opens sound/beeps on/off menu. Press R-Up & R-Down to Navigate. Press Go button within timeout window to accept changes. Use the R-Up or R-Down to toggle to ON   OFF.
R-Up, R-Up, R-Down, R-Down, Time, Stop	Activates Marathon Mode for one workout, or until the STOP key is pressed, whichever happens first
Time x 4, Weight, Time x 4, Units, Stop	Prompts the user to reset to factory defaults. Must press GO within 5 seconds of prompt to confirm.
Stop, Stop, Stop, R-Up, R-Up, R-Up	Disables End-Of-Workout Homing and incline-related errors. This will allow technicians to use incline in-workout on a unit with a malfunctioning home switch.
R-Up, R-Down, R-Up, R-Down, Weight	Downloads logs to USB stick
R-Up, R-Down, R-Up, R-Down, R-Up, R-Down, Weight, Stop	Displays status for WiFi. OFF means the WiFi Enabled setting is disabled. CONN means that the console is connected to the LFC push server.



## Software Upgrading Process

### Firmware Updating Process

*If there are no LEDs after your software update, you will need to manually load the firmware files.*

1. Contact our Contact Center at 1-888-PLANET5 to acquire the *duplo\_app.bin* file.
2. Format a different USB flash drive using the instructions provided above.
3. Copy and Paste the *duplo\_app.bin* file into your newly formatted USB flash drive using the instructions provided in this Job Aid and “Eject” as instructed.
4. Insert your USB flash drive into the console and press R-Up, R-Down, R-Up, R-Down, Units.
5. When complete the console with flash back to the LF logo.
6. Remove your USB flash drive from the console



## Technical Reference

June 2020

Global Technical Training Organization



Contains frequently used service information for quick on-the-job usage



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## Software Upgrading Process Copy & Pasting Software into your USB Stick

1. Locate the folder containing your recently downloaded Integrity C Console software. Open the file window containing the download, but do not click on the downloaded software file yet.
2. Locate your USB flash drive in File Explorer & open that window.
3. You should now have 2 open window on your computer.
4. Right-click on the downloaded software file icon and select "Copy" from the drop-down menu.
5. Right-click anywhere within your USB flash drive blank window and select "Paste" from the drop-down menu. Doing so will copy all of the software into your USB flash drive.
6. Right-click on your USB flash drive icon and select "Eject" from the drop-down menu.
7. Your USB flash drive is now ready to update your console's software
8. As stated in your "7 Step Software Updating Checklist", insert your USB flash drive into the console.
9. Press: R-Up > R-Down > R-Up > R-Down > Time
10. Wait for a check mark to appear on the console
11. Remove your USB stick from the console



Time  
Weight  
Units





## Software Upgrading Process



### Formatting your USB Flash Drive

1. Connect your USB flash drive to your computer by inserting it into one of your PC's USB ports
2. Locate your USB flash drive in File Explorer
3. Right-click on your USB flash drive's icon and select "Format" from the drop-down menu. Doing so will open the Format window.
4. Within the file system pull-down tab, make sure the setting is "FAT32". This should be the default setting.
5. Within the format options section, check the Quick Format box if available. This will speed up the process.
6. Click Start and then click OK to format and erase all data on your USB flash drive. Doing this will cause Windows to begin formatting your flash drive for you
7. Click OK when prompted that the format is complete. Your flash drive has been successfully formatted.

[Job Aid Link](#)  
[Console Software & Firmware](#)  
[Updating Process](#)



QR Code



## Personal Protection Equipment (PPE)

*Equipment worn to minimize exposure to hazards that cause serious workplace injuries or illnesses.*



## Checklist – Technician’s Basic Tools

- Face Masks
- Face Shields or Eye Protection Goggles
- Disposable vinyl, rubber or silicone gloves
- Eye Protection Goggles
- Tape Measure
- Masking Tape
- Portable Vacuum Cleaner
- Multimeter with Test Leads
- Anti-Static Grounding Wrist Strap
- Microfiber Cloths
- E-Ring Tool
- Calibrated Torque Wrench
- Rubber Mallet / Dead Blow
- Adjustable Wrench
- Ratchet Wrench
- 15mm Crow’s Foot
- Full Metric Socket Set
- Full SAE/Imperial Socket Set
- Full Torx Set
- Full Metric Ball Tipped Allen/Hex Wrench Set
- Full Imperial Ball Tipped Allen/Hex Wrench Set
- Full Metric Open-End Wrench Set
- Full Imperial Open-End Wrench Set
- Full Set of Standard & Phillips Screwdrivers
- Internal/External Retaining Ring Pliers
- Needle Nose Pliers
- Diagonal (Wire Cutting) Pliers
- Bike Crank Arm Removal / Puller Tool
- 15mm Pedal Wrench



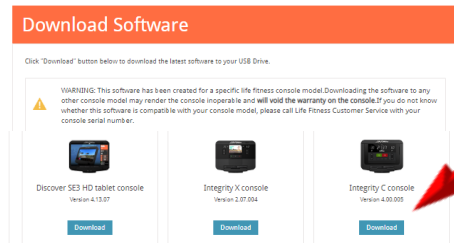
## Software Upgrading Process

### 7 Step Software Updating Checklist

- Locate your Integrity C Console software using the [Halo Software Download Link](#), click the Download button under your console’s image and download the software to your computer**
- Format your USB flash drive using instructions provided in this Job Aid**
- Copy and paste the downloaded software file icon to your USB stick**
- Insert your USB flash drive into the console**
- Press R-Up, R-Down, R-Up, R-Down, Time**
- Wait for a check mark to appear on the console**
- Remove your USB stick**



[Halo Software Download Page Link & Address  
https://www.halo.fitness/web/softwareDownload.html](https://www.halo.fitness/web/softwareDownload.html)

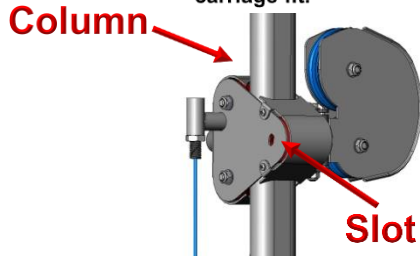




## Strength Cautions

### CM/MJ Carriage Pull Pin Adjustment

The carriage's front roller hole is slotted and allows the roller to adjust in conjunction with the column to provide a secure carriage fit.



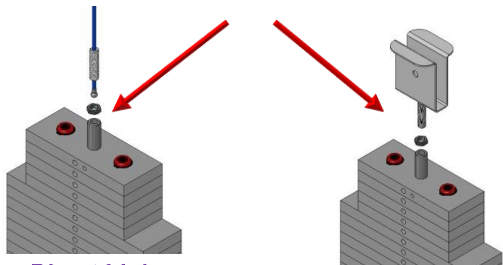
If the carriage is loose or wobbles, adjust bolt within slot (bolt removed for view).

### Threaded Cable Terminations

All Cable terminals or ends that are threaded into a weight stack or frame must be seated by at least 1/2" for secure safe operation.

This applies to all direct link weight stacks, floating pulley style weight stacks as well as direct frame terminations.

**1/2" Minimum**



Direct Link

Floating Pulley



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## Checklist – Lubricants & Thread Lockers

- 242/243 Blue Thread Locker
- 2701 Green High Strength Thread Locker
- 30W Non-Detergent Motor Oil
- Multi-Purpose Oil
- Wheel Bearing Grease
- White Lithium Grease
- Clear Silicone Grease

**Caution:**  
Only use these product types on the materials stated within the Life Fitness instruction documents. Failure to use these products as instructed, can damage equipment, material, parts and void warranty.



Multi-Purpose Oil

30W Non-Detergent Motor Oil

White Lithium Grease



242/243 Blue Thread Locker



Wheel Bearing Grease

**These are only examples of product options**



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# Calibrated Torque Wrench

**Recommended:  
Dial & Click Torque Wrench**



**“Dial & Click” type torque wrenches:**  
Torque Wrench, 10-75 ft. lbs., 3/8 or 1/2 inch Drive. Manual adjustment type with micrometer-type scales stamped into housing show torque settings in both English and metric units.  
Accuracy: +/- 4%.

**All structural joints on any unit must be tightened to the recommended torque specification shown in the service documentation.**

**How to use a Torque Wrench**

The large center beam bends as you apply torque, while the unbending pointer beam lets you read the torque directly. If it goes out of calibration, simply bend the pointer back to zero with a pair of pliers.

This pro-grade tool is preset to the correct torque and will click tactilely and audibly when it reaches the correct torque. It's highly repeatable and accurate, but should be returned to zero after every use.

- Click Wrenches typically emit a loud audible "click" when the set torque is reached.
- Most click type wrenches break about 3 degrees after set torque is reached and then become positive.
- This positive action can cause over-torque conditions.
- Proper use and maintaining is required so that operators stop putting the moment the click sound is heard or felt.

**Controls**

Head Knob, Torque Wrench, Lock Knob

**Torque x Length x Weight**  
Includes (small) Job Aid Pick-Up (pick beam)

Turn the Lock Knob at bottom of the handle counter-clockwise until it clicks.

For additional instructions, please reference the “How to use a Torque Wrench” Job Aid.



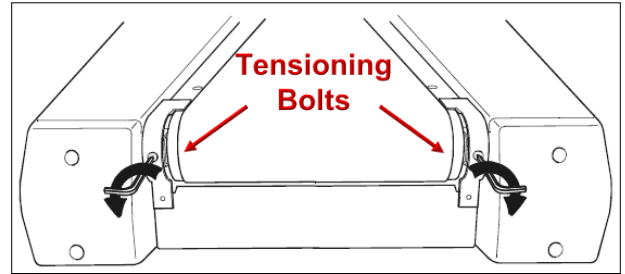
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[Job Aid & Video Link](#)  
[How to use a Torque Wrench](#)

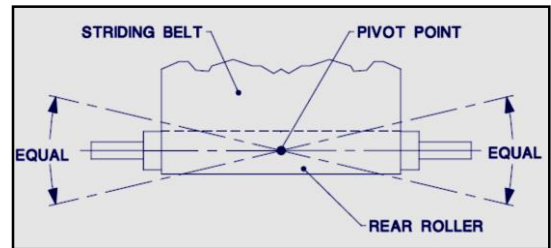


# Treadmill Belt Tensioning & Alignment

## Striding Belt Alignment Process



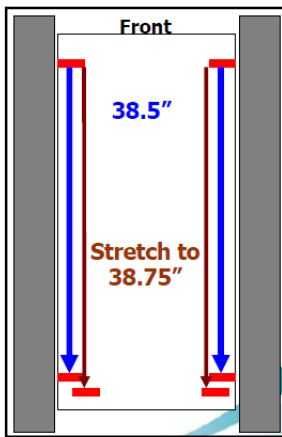
1. Ensure that the treadmill is correctly leveled.
2. With the belt running, note its tracking (centering).
3. If the belt moves or has moved to the right, turn the right **Tensioning Bolt** 1/4 turn counterclockwise and then the left **Tensioning Bolt** 1/4 turn clockwise to bring the belt back to center.
4. Turning both bolts equally in the opposite directions will prevent additional tensioning while still aligning.
5. If the belt has moves or has moved to the left, simply reverse this process.





## Treadmill Belt Tensioning & Alignment

### Striding Belt Tensioning Process



1. Position the belt seam on the underside of the treadmill and not visible.
2. Place two (2) pieces of tape on the left and right side of the belt near the front roller.
3. On each side, place another piece of tape exactly 38.5" from the first piece of tape.
4. Counting wrench rotations, stretch the Belt so that the marks are now at 38.75" on both sides.

### Testing After The Tensioning Process



#### **“Stomp Test”**

Run unit at about 2.5 mph then stomp your foot to check if the striding belt slips. If slippage occurs, make minor adjustments to the tension by equal 1/4 turns on both tensioning bolts. Repeat the Stomp Test after each adjustment.

## Cleaning and Disinfecting

Refer back to Planet Fitness Corporate for recommendations on cleaning and disinfecting recommendations

Link, Address & QR Code to the Instructional Video:

[Global Cleaning & Disinfecting Video Link](https://youtu.be/O-EMcwqKJfU)

<https://youtu.be/O-EMcwqKJfU>



### 6 Step Cleaning Checklist

- Use the appropriate Personal Protection Equipment (PPE) when cleaning and disinfecting your equipment
- Reference the cleaning product manufacturer's label instructions prior to cleaning and disinfecting your equipment
- Apply the cleaner to a microfiber cloth first and then use the cloth to wipe down your equipment
- Avoid spraying any cleaner directly on the equipment, this could cause corrosion or damage to electronic components
- Give special attention to all equipment touchpoints, pads & accessories
- Wipe the unit from one side to the other vs. in a circle

## Cleaning and Disinfecting

Refer back to Planet Fitness Corporate for recommendations on cleaning and disinfecting recommendations

### Recommendations

- *Life Fitness recommends cleaning and disinfecting your equipment before and after each use.*
- *All Life Fitness customers are recommended to establishing a comprehensive preventative maintenance and cleaning schedule dependent upon facility traffic.*
- *Life Fitness recommends a non-corrosive product for use on Life Fitness Equipment. We encourage our customers not to use bleach, acid-based or abrasive products on their equipment.*
- *Follow the guidelines offered by the [Centers for Disease Control and Prevention \(CDC\)](#) or the [World Health Organization \(WHO\)](#) to ensure that you're doing what you can to eliminate coronavirus and other harmful germs in common areas.*

*Life Fitness recommends removing each unit's shrouds and vacuuming all dust and debris from inside on a regular schedule based upon facility traffic.*

### [Job Aid Link](#) [Cleaning and Disinfecting](#)



QR Code



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## Additional Links to Maintenance Videos for Current Products



### INTEGRITY II TREADMILL

WATCH VIDEO

<https://www.youtube.com/watch?v=zSWDTza4srM>

QR Code



### INTEGRITY II CROSS TRAINER

WATCH VIDEO

<https://www.youtube.com/watch?v=OAWPmSyg5xg>

QR Code



### INTEGRITY II RECUMBENT BIKE

WATCH VIDEO

<https://www.youtube.com/watch?v=sdKNcxY120I>

QR Code



### INTEGRITY II UPRIGHT BIKE

WATCH VIDEO

<https://www.youtube.com/watch?v=FJLh4Q9Gpo>

QR Code



## Console Troubleshooting

### 6 Step

### Console Troubleshooting Process

1. **Update Software**
2. **Check that the main wiring harness is properly seated in the base and in the console (Check Continuity if Necessary)**
3. **Check that all wiring connectors are seated on each of the internal console circuit boards.**
4. **Perform a Hard-boot vs Soft-boot**
5. **Reset the console to factory defaults**
6. **Swap console**



Please reference the "Integrity C Console Troubleshooting" Job Aid.



QR Code

[Job Aid Link](#)

[Int C Console Diagnostics Nav with Troubleshooting](#)

## Cleaning and Disinfecting

Refer back to Planet Fitness Corporate for recommendations on cleaning and disinfecting recommendations

**Touchpoint = A point of contact or interaction. Areas that are "touched" during usage of the unit.**

Touchpoint Examples = Knobs, Handles & Pads



Touchpoint Examples = Keypads, Handrails & Heartrate Sensors



**Caution:**  
Life Fitness does not recommend tipping the treadmill. Please contact Planet Fitness corporate for further recommendations on club operations.

# Preventative Maintenance

## Site Survey Checklist Process

Link & QR Code to your Planet Fitness Preventative Maintenance Site Survey Checklist Document:

[Job Aid Link](#)  
[Planet Fitness PM Site Survey Checklist](#)



QR Code

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### Preventative Maintenance & Site Survey Checklist

A Preventive Maintenance (PM) is a complete diagnostic inspection with all necessary adjustments and lubrication of the equipment. A Site Survey is an inspection of an area to identify issues and gather information for an estimate or report to complete identified tasks.

**ALL UNITS MUST BE USED & ALL FEATURES FULLY TESTED FOR THIS SITE SURVEY**  
(Strength with a minimal amount of weight & cardio at both the lowest and the highest speed or resistance)

Please select and inspect only the areas and products that apply for each location

TREADMILLS	ELLIPTICALS	STATIONARY BIKES	ROWERS
<input type="checkbox"/> Full Cosmetic Inspection for Damage & Rust <input type="checkbox"/> Console Leveling <input type="checkbox"/> Responsive Jack Functionality (if needed) <input type="checkbox"/> Noise Inspection Process <input type="checkbox"/> Drive Magnet Inspection <input type="checkbox"/> Flywheel Resistance & Functionality <input type="checkbox"/> All Buttons Response & Functionality <input type="checkbox"/> Incline Adjustment Inspection <input type="checkbox"/> Belt & Deck Inspection <input type="checkbox"/> Full Incline Functionality <input type="checkbox"/> Full Speed Functionality <input type="checkbox"/> Full Console & Incline Change & Inspection <input type="checkbox"/> Belt & Screw Inspection - Rust, Loose or Damaged <input type="checkbox"/> All Motor Lubrication (where bearing grease)	<input type="checkbox"/> Full Cosmetic Inspection for Damage & Rust <input type="checkbox"/> Belt & Sprocket Inspection - Rust, Loose or Damaged <input type="checkbox"/> Strive & Console Inspection <input type="checkbox"/> Handgrip Jack Functionality (if needed) <input type="checkbox"/> Console Adjustment Process <input type="checkbox"/> Roll-Back, Braking & Roll Inspection <input type="checkbox"/> Noise Inspection Process <input type="checkbox"/> Power Inspection <input type="checkbox"/> All Buttons Response & Functionality <input type="checkbox"/> Incline Functionality <input type="checkbox"/> Full Incline Functionality <input type="checkbox"/> Full Speed Functionality <input type="checkbox"/> Full Console & Incline Change & Inspection <input type="checkbox"/> Belt Functionality <input type="checkbox"/> Preventative Maintenance (See Video & Job Aid)	<input type="checkbox"/> Full Cosmetic Inspection for Damage & Rust <input type="checkbox"/> Noise Inspection Process <input type="checkbox"/> Handle Link Movement Test (When-Over Play) <input type="checkbox"/> Handgrip Jack Functionality <input type="checkbox"/> Full Incline Functionality <input type="checkbox"/> Power & Battery Inspection <input type="checkbox"/> All Buttons Response & Functionality <input type="checkbox"/> Incline Functionality <input type="checkbox"/> Full Resistance Functionality <input type="checkbox"/> Full Resistance Functionality <input type="checkbox"/> Full Resistance Functionality <input type="checkbox"/> Cable Tensioner Calibration & Function <input type="checkbox"/> All Motor Lubrication (where bearing grease)	<input type="checkbox"/> Full Cosmetic Inspection for Damage & Rust <input type="checkbox"/> Console Leveling <input type="checkbox"/> Responsive Jack Functionality (if needed) <input type="checkbox"/> Noise Inspection Process <input type="checkbox"/> Drive Magnet Inspection <input type="checkbox"/> Flywheel Resistance & Functionality <input type="checkbox"/> All Buttons Response & Functionality <input type="checkbox"/> Incline Adjustment Inspection <input type="checkbox"/> Belt & Deck Inspection <input type="checkbox"/> Full Incline Functionality <input type="checkbox"/> Full Speed Functionality <input type="checkbox"/> Full Console & Incline Change & Inspection <input type="checkbox"/> Belt & Screw Inspection - Rust, Loose or Damaged <input type="checkbox"/> All Motor Lubrication (where bearing grease)

For additional information, parts or service, our Contact Center is available at 1-800-PLANETS (888-752-6283) or planetfitness@lifefitness.com



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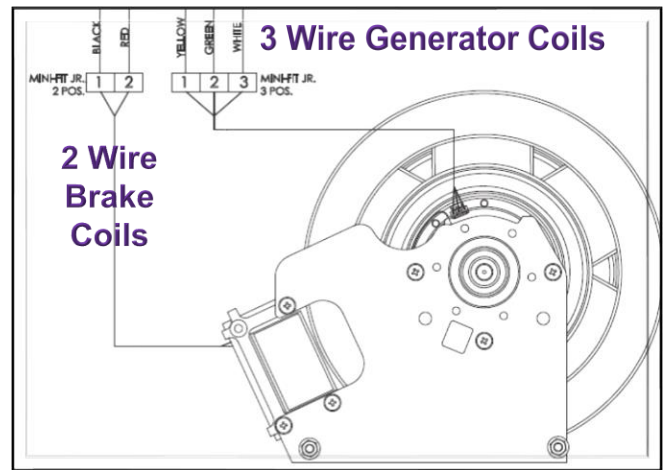


# Generator Testing Process

The test will verify any commercial Generator's proper electrical operation.

- Measure OHMS between each of the 3 wires (Generator Coils) with flywheel stable.
- Measure OHMS between the two wires of the Brake coil.

	Generator Coils	Break Coils
Life Fitness	69.5 ohms +/- 10%	12.1 ohms +/- 10%
SCIFIT Rotary	50 ohms +/- 10%	10.0 Ohms +/- 10%
Cyberx	28.5 ohms +/- 10%	2.5 ohms +/- 10%
SCIFIT Latitude	26.0 ohms +/- 10%	10.0 Ohms +/- 10%

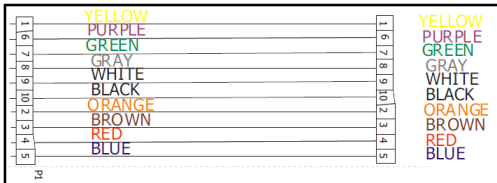


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## Cable & Generator Testing (Multimeter Use)

### Continuity

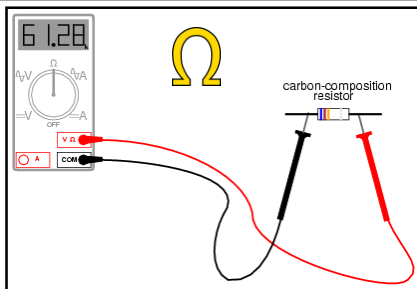


The placement of the selector switch should point to a tone symbol. If correctly setup, the meter will beep when the meter leads touch together. This test is to determine if a wire if “broken” or shorted to another wire.

Disconnect cable ends & perform the 3 test process.

- 1) Pin to Pin = Ex. Red to Red (Should Produce A Beep)
- 2) Pin to All Other Pins = Ex. Red to (Not Red) Blue, Brown, Black, etc.... (Should Not Produce A Beep)
- 3) Pin to Frame = Frame to be used as a Ground/Reference (Should Not Produce A Beep)

### Resistance (Ohm [Ω])



Note the placement of the selector switch, it points to the "horseshoe" resistance (Ohms) symbol.  
This process is used for Generator testing only.



## Preventative Maintenance Optional Reporting Recommendation Only

### Common Parts:

- Integrity C Console 5A / 12VDC (60W) Power Supply  
Part Number = 1001517-0002
- 12VDC Battery (Arc Trainer Only)  
Part Number = EC-18267
- 6VDC Battery  
Part Number = 0017-00003-0685



To be used in  
accordance  
with your  
Planet Fitness  
ticketing  
system.



QR Code

[Job Aid Link](#)  
[Planet Fitness Site Survey](#)  
[Report Sample](#)





## Preventative Maintenance PowerMill Process Sprocket and Chain Alignment Process

Before beginning the PowerMill Preventative Maintenance Process, each unit must be assessed for the 4 Key Chain Misalignment Indicators. If any of these 4 Key Indicators are present, the chain alignment process must be performed before the PowerMill Preventative Maintenance. This document is to be used in conjunction with The PowerMill Preventative Maintenance Job Aid & [The PowerMill Preventative Maintenance Video](#).

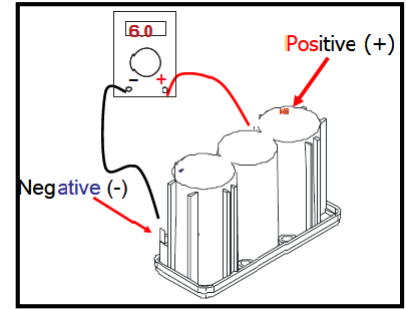
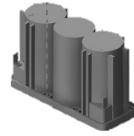
### 4 Key Indicators for an Alignment

1. Steps not centered in the body of the PowerMill
2. Metal shavings visible near the rear of the unit and coating the chains, sprockets and wear bars
3. Chains not centered on the sprockets
4. Noisy



## Multimeter Use - Battery Maintenance

DC  
Voltage

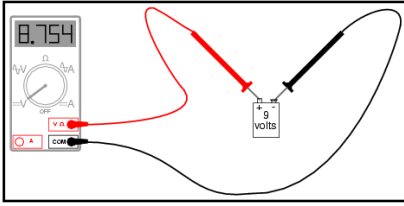


1. Do not store in high temperature conditions (such as inside a vehicle).
2. Do not use batteries if Open Circuit Voltage is less than 6.0Vdc.
3. Open Circuit Voltage (OCV) is measured after battery has sat without charging or discharging for more than 24 hours.
4. Voltage of 5.7-6.0Vdc might be enough to start up a console, but the battery life has been compromised and might not accept a charge.
5. Make sure that batteries are being properly charged in our applications. This means an average workout (above 50RPM's) time of at least 15 minutes.



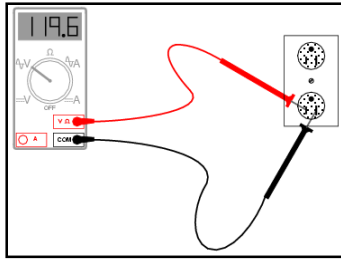
## Multimeter Use - Measuring Voltage

### DC Voltage



Note that the two test leads are plugged into the appropriate sockets on the meter for voltage, and the selector switch has been set for DC "V", indicated by a straight line & dashed straight line

### AC Voltage



Note the placement of the selector switch, it is now turned to AC "V" and indicated by a wavy line.

### CAUTION:

**DO NOT CONTACT THE PROBE WHILE IT IS CONTACTING A POINT IN THE SOCKET A POSSIBILITY OF ELECTRIC SHOCK EXISTS.**



## Preventative Maintenance PowerMill Process Sprocket and Chain Alignment Process

### "The Job Aid"

The Job Aid is Essential to Perform the Sprocket and Chain Alignment Process

LIFE FITNESS FAMILY OF BRANDS  Recommended PowerMill Sprocket and Chain Alignment Process	
<b>4 Key Indicators for an Alignment</b> 1. Steps not centered in the body of the PowerMill 2. Metal shavings visible near the rear of the unit and coating the chains, sprockets and wear bars 3. Chains not centered on the sprockets 4. Noisy <small>Note: If any of the 4 Key Indicators are present, the Chain alignment process should be performed before the PowerMill Preventative Maintenance. This document is to be used in conjunction with The PowerMill Preventative Maintenance Job Aid &amp; The PowerMill Preventative Maintenance Video.</small>	<b>Verifying Drive Chain Deflection Steps</b> 1. Place masking tape on the frame behind the center of the drive chain. 2. Using the chain as a center of reference on the tape, place a mark at 3/16" distance from each side of the drive chain. (See Yellow Bars below) 3. Push the chain slack with your thumb to each 3/16" mark to verify drive chain deflection. 4. If the chain slack exceeds the 3/16" mark on either side, adjust the chain tension until the side to side verification aligns with the tape markings.
<b>4 Step Alignment Checklist</b> <input checked="" type="checkbox"/> Remove Covers <input type="checkbox"/> Inspect for Key Indicators (Above) <input type="checkbox"/> Verify Drive Chain Deflection <input type="checkbox"/> Verify Axle to Axle Measurement <input type="checkbox"/> Perform Sprocket and Chain Alignment Process <input type="checkbox"/> Perform PowerMill Preventative Maintenance (PM) (See PowerMill Job Aid & Video for this Process)	<b>Chain Deflection Adjustment Steps</b> 1. Adjust drive chain tension by loosening the bolt in the center of the tensioning sprocket. (See Bolt 1) 2. Use tensioning bolt to adjust drive chain tension to your 3/16th marks. (See Bolt 2)

Planet Fitness LIFE FITNESS FAMILY OF BRANDS For additional information, parts or service, our Contact Center is available at 1-888-PLANETS (888-752-4385) or planetfitness@liffitness.com

## Chain Alignment Process Job Aid Link



### Printing Instructions

QR Code

- Print on 8.5 x 11 paper
- Print in "Landscape" orientation
- Print on both sides of the paper



# Preventative Maintenance PowerMill Process

## The Sprocket and Chain Alignment Job Aid

### Follow the 4 Step Alignment Checklist

**LIFE FITNESS** **planet fitness** Recommended PowerMill Sprocket and Chain Alignment Process

#### 4 Key Indicators for an Alignment

- Steps not centered in the body of the PowerMill
- Metal shavings visible near the rear of the unit and coating the chains, sprockets and wear bars
- Chains not centered on the sprockets
- Noisy

*Note: If any of the 4 Key Indicators are present, the chain alignment process should be performed before the PowerMill Preventative Maintenance. This document is to be used in conjunction with The PowerMill Preventative Maintenance Job Aid & The PowerMill Preventative Maintenance Video.*

#### 4 Step Alignment Checklist

- Remove Covers
- Inspect for Key Indicators (Above)
- Verify Drive Chain Deflection
- Verify Axle to Axle Measurement
- Perform Sprocket and Chain Alignment Process
- Perform PowerMill Preventative Maintenance (PM) (See PowerMill Job Aid & Video for this Process)

#### Verifying Drive Chain Deflection Steps

- Place masking tape on the frame behind the center of the drive chain.
- Using the chain as a center of reference on the tape, place a mark at 3/16" distance from each side of the drive chain. (See Yellow Bars below)
- Push the chain slack with your thumb to each 3/16" mark to verify drive chain deflection.
- If the chain slack exceeds the 3/16" mark on either side, adjust the chain tension until the side to side verification aligns with the tape markings.

#### Chain Deflection Adjustment Steps

- Adjust drive chain tension by loosening the bolt in the center of the tensioning sprocket. (See Bolt 1)
- Use tensioning bolt to adjust drive chain tension to your 3/16th marks. (See Bolt 2)

For additional information, parts or service, our Contact Center is available at 1-888-PLANETS (688-752-6355) or planetfitness@lifefitness.com

#### Verifying Axle to Axle Measurement

- Measure the upper axial center of shaft to the lower axial center of shaft, this measurement should not exceed 37.25 inches.
- Both center axels on the Rt & Lt sides of the unit must be equal

#### Sprocket and Chain Alignment Process

- Loosen bolts 1 & 2 (do not remove) on the upper axle pillow block bearing only.
- Using alignment bolt 3, make axle center to center measurement equal to the other side, but not exceeding 37.25 inches.

<b>Tools Required</b> for the procedures on this Job Aid. 	<b>Total Time Required</b> for the procedures on this Job Aid. 	<b>Total People Required</b> for the procedures on this Job Aid. 
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Life Fitness recommends that only factory trained technicians perform the procedures on this Job Aid.

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## Multimeter Familiarization and Use

**Min/Max:** Beeps when a new min/max observed while calculating running average

**AC Voltage Shift:** Frequency Counter

**DC Current Shift:** Frequency Counter

**AC Current Shift:** Frequency Counter

**Shift Key:** Use to access the yellow labeled features

**Screen Backlight:** Auto-off in 40 sec.

**DC Voltage**

**Millivolts for AC Shift:** Millivolts for DC

**Ohmmeter Setting**

**Continuity Beeper**

**Diode Test Shift:** Capacitometer

**Ammeter Terminal**    **Common Ground (COM)**    **Everything but Ammeter Terminal**

~	AC Voltage	⏏	Ground
—	DC Voltage	⏏	Capacitor
Hz	Hertz	μF	MicroFarad
+	Positive	μ	Micro
-	Negative	m	Milli
Ω	Ohms	M	Mega
⎓	Diode	K	Kilo
• )))	Audible Continuity	OL	Overload

These symbols are often found on multimeter and schematics. They are designed to symbolize components and reference values.



## Electrostatic Discharge (ESD) Principles

To prevent ESD damage in Electronics, we need to decrease the potential difference between our body and the electronics we are contacting. For this, we can use protecting tools, such as...

- ◆ Grounded strap to wrist
- ◆ Special grounded floor surface
- ◆ ESD/Anti-Static bags



- Always close and stick down the Anti-Static/ESD bag. If the bag is open, it then only provides about 70% protection from ESD. Store parts in bag until properly grounded and ready for use.
- Do not touch the electronic components on the PCB directly



## Preventative Maintenance PowerMill Process

The Job Aid and Video are  
Essential to Perform the  
PowerMill Preventative  
Maintenance Process

[Job Aid Link](#)  
[PowerMill PM Process](#)



QR Code



### Printing Instructions

- Print on 11 x 17 paper
- Print on both sides of the paper
- Fold in half to make a book



# Preventative Maintenance PowerMill Process "The Job Aid" Follow the Pages & Follow the Steps

**LIFEFITNESS** Technical Training Department  
Job Aid: PowerMill Preventative Maintenance

Link to the video of the process:  
[PowerMill Preventative Maintenance Video](#)  
Website to the video of the process:  
<http://www.planetfitness.com/fitness/department/technical-training>

**Tools, Oils, Greases & Lubricants**

Breakfree CLP  
3M Finest PTFE Dry PTFE Spray  
Non-Detergent Motor Oil 30W  
#2 Phillips Screwdriver  
3M 1 OIL  
White Lithium Grease

### Step 1

**IMPORTANT**  
Turn Off & Unplug the PowerMill Prior to Performing ANY Maintenance

- Inspect all the steps for cracks or soft spots and test all the features noting any failures or noise issues.
- TURN OFF & UNPLUG the unit
- Remove the struts in the proper sequence

### Step 2

- Unlock the brake by moving the lever to the "DOWN" position
- Oil the single large "Drive" chain and the two "Step" chains using ONLY the 30W Non-Detergent Motor Oil

2 Step Chains on both sides of the unit

### Step 3

- Grease the inside of the "Wear" bars on both sides of the unit that guide the step chain bearings using the White Lithium Grease
- Add some additional grease and check for "spin" on the step chain bearings

### Step 4

- Inspect the inside of the unit for damage and clean the unit of any excess dust or debris.
- Add a single drop of Breakfree CLP or 3M 1 OIL to each inside "Step Rod" holes to clean, lubricate and prevent corrosion of the Step Rods.
- Be sure to thoroughly clean and wash each step to remove any excess oil to prevent possible slipping during use.
- Remove the main "metal" motor cover to access the brake belt for preparation of Step 5.

### Step 5

Inspect Brake & Drive Belts for ANY wear or cracking

Brake Belt  
Drive Belt

Note: If the belt between the motor and the brake is removed for any reason it must be replaced with a new one.

Beet Wear (Motor's Loop) - If material loss is occurring an arrow above the belt should be replaced.

Belt Cracking - If cracks appear 2 cm or less apart, then 50% of the belt life is gone and the belt should be replaced.

Engage brake, reinstall the struts, power up the unit and do the final testing for functionality.

**Preventive Maintenance Schedule**

Item	Frequency	Notes
Oil Chains	Monthly	Use 30W Non-Detergent Motor Oil
Grease Bearings	Monthly	Use White Lithium Grease
Inspect Belts	Monthly	Check for wear and cracking
Clean Unit	Monthly	Remove dust and debris
Lubricate Rods	Monthly	Use Breakfree CLP or 3M 1 OIL
Test Features	Monthly	Check for cracks and noise

**IMPORTANT**  
Turn Off & Unplug the PowerMill Prior to Performing ANY Maintenance



# Preventative Maintenance PowerMill Process "The Video" Review your Video Prior to Performing the PowerMill Preventative Maintenance Process



[PowerMill Preventative Maintenance Video Link](#)



QR Code

