



INTRODUCTION TECHNICAL CERTIFICATION TRAINING

Field Engineering | 2011

LifeFitness
WHAT WE LIVE FOR

Welcome

- » **Schedule**
 - ◆ **Breaks**
 - ◆ **Lunch**
- » **Facility**
 - ◆ **Restrooms**
 - ◆ **Coffee**
- » **Life Fitness Rules**
 - ◆ **Healthy Environment**



Agenda

- » Trainers and Trainees Self Introduction
- » Some History
- » Life Fitness - Video
- » Training Structure
- » Training Agenda
- » Rules and Expectations
- » Sources of Information and Support
- » Tool Requirements
- » Cleaning

Trainers and Trainees

» Trainers – self introduction:

- ♦ Bart Bizon
- ♦ Greg Joseph
- ♦ Bill Hughes
- ♦ Jamarr Buchanan
- ♦ Willy Racela

» Trainees - self introduction

Some History

- » In 1968 Dr. Dimick, invented the legendary Lifecycle exercise bike.
- » The story of Life Fitness began when Ray Wilson and Augie Nieto, saw the promise of Dr. Dimick's invention and bought the rights to the Lifecycle bike, perfected it, and sold it out of a motor home to health clubs across America.



Life Fitness Today

- » Employs more than 1,700 people at 12 international subsidiaries and manufacturing facilities;
- » Has 186 dealers and distributors in more than 120 countries;
- » Offers more than 300 different cardio and strength-training products.



Life Fitness Brands - Commercial

» Cardiovascular Product Lines

- ◆ Treadmills
- ◆ Elliptical Cross-Trainers
- ◆ Lifecycle Exercise Bikes
- ◆ Stairclimbers
- ◆ Summit Trainers



» Strength Product Lines

- ◆ Cable Motion
- ◆ Signature Series
- ◆ Circuit Series
- ◆ Pro2 Series
- ◆ Fit Series
- ◆ Core Training

» Hammer Strength Product Lines

- ◆ Plate-Loaded
- ◆ Motion Technology Selectorized
- ◆ Heavy-Duty Racks
- ◆ Benches and Racks



Life Fitness Brands - Consumer

» Cardiovascular Product Lines

- ◆ Treadmills
- ◆ Elliptical Cross-Trainers
- ◆ Lifecycle Exercise Bikes
- ◆ Stairclimbers



» Strength Product Lines

- ◆ Home Gyms



Training Structure

» **Modular, system based theoretical training:**

- ◆ Mechanical Subsystems
- ◆ Electrical Subsystems
- ◆ Control Consoles
- ◆ Software and Update Processes
- ◆ Entertainment TV

» **Machine and system based “Hands-on” training:**

- ◆ Hands-on training will be performed on production units
- ◆ Different Subsystems will be pointed and reviewed on multiple machines
- ◆ Some subsystems might be touched upon multiple times

Modular training - Benefits

» Pros:

- ◆ Gives ability to understand the systems operation
- ◆ Allow better visibility of the modules interaction
- ◆ It is not model specific
- ◆ Helps to understand the principles of troubleshooting
- ◆ Provides high level overview of the systems design

» Cons:

- ◆ Requires continuous undivided attention!

WARNING

WE NEED YOUR

**UNDIVIDED
ATTENTION**

DURING THE TRAINING

Training Agenda - Tuesday

<i>Tuesday</i>			
<u>Start Time</u>	<u>End Time</u>	<u>Topic</u>	<u>Presenter</u>
7:50	8:00	Opening	
8:00	8:30	Introduction	John Hiestand
8:30	9:00	Cardio Mechanics	Jamarr Buchanan
9:00	10:00	Electrical Theory	Greg Joseph
10:00	10:10	Break	
10:10	11:10	Alternator System and ACB	Greg Joseph
11:10	12:10	Strength Mechanics	Jamarr Buchanan
12:10	12:55	Lunch	
12:55		Hands On M: Dual Stage Pulley System	Jamarr Buchanan
		Hands On M: CLU, CLR	Wilfredo Racela
	14:10	Hands On E: CLU, CLR	Greg Joseph
14:10	14:35	Consoles & Console Diagnostics - Overview	Bart Bizon
14:35	14:45	Break	
14:45	15:05	LED Console Electronics	Bart Bizon
15:05	15:25	LED Console Diagnostics	Bart Bizon
15:25	15:35	Hands On C: CLST	Bart Bizon
15:35	15:55	CSAFE Protocol	Bart Bizon
15:55	16:10	Software Update with a PC - Flash Programmer	Bart Bizon
16:10	16:25	Hands On S: CLST	Bart Bizon
16:25	16:55	Entertainment TV	Greg Joseph
16:55	17:00	Wrap Up - Q & A	Field Engineering

Training Agenda - Wednesday

<i>Wednesday</i>			
<u>Start Time</u>	<u>End Time</u>	<u>Topic</u>	<u>Presenter</u>
7:50	8:00	Opening	
8:00	9:00	Generator/Brake System and GBC	Greg Joseph
9:00		Hands On M: Single Stage Pulley System	Jamarr Buchanan
		Hands On M: Seat mechanisms	Jamarr Buchanan
		Hands On M: 95C, 95R, LeMond	Wilfredo Racela
		Hands On M: R3	Wilfredo Racela
	10:15	Hands On E: 95C	Greg Joseph
10:15	10:25	Break	
10:25		Hands On M: Pedal System	Jamarr Buchanan
		Hands On M: Linkage System	Jamarr Buchanan
	11:25	Hands On M: 95S, 95L	Wilfredo Racela
11:25	12:10	Lunch	
12:10		Hands On M: Timing Drive System	Jamarr Buchanan
	13:10	Hands On M: 95X, CLSX	Wilfredo Racela
13:10	13:55	LCD Console Electronics	Bart Bizon
13:55	14:15	LCD Console Diagnostics	Bart Bizon
14:15	14:35	Hands On C: 95Te, 95T, 95X	Bart Bizon
14:35	14:45	Break	
14:45	15:20	Heart Rate Systems	Bart Bizon
15:20	15:35	Hands On E: 95T	Bart Bizon
15:35	15:50	Software Update with an USB Flash Memory	Bart Bizon
15:50	16:05	Hands On S: 95T	Bart Bizon
16:05	16:20	Etched LCD Console Electronics	Bart Bizon
16:20	16:50	Etched LCD Console Diagnostics	Bart Bizon
16:50	17:00	Hands On C: Basic and Advanced consoles	Bart Bizon
17:00	17:05	Wrap Up – Q & A	Field Engineering

Training Agenda - Thursday

<i>Thursday</i>			
<u>Start Time</u>	<u>End Time</u>	<u>Topic</u>	<u>Presenter</u>
7:50	8:00	Opening	
8:00	8:20	Eddy Current System and Control Board	Greg Joseph
8:20	8:40	Electronic Stride Adjustment System	Greg Joseph
8:40	8:50	Break	
8:50		Hands On M: Stride Adjustment Systems	Jamarr Buchanan
		Hands On M: X5, X7	Wilfredo Racela
	10:05	Hands On E: X7	Greg Joseph
10:05	11:35	Treadmill Base Electronics - AC Motor	Greg Joseph
11:35	12:20	Lunch	
		Hands On M: Lifting System	Jamarr Buchanan
		Hands On M: CLT, 95T	Wilfredo Racela
	13:35	Hands On E: 95T	Greg Joseph
13:35	14:05	Treadmill Base Electronics - DC Motor	Greg Joseph
14:05		Hands On M: T5.0, F3	Wilfredo Racela
	14:45	Hands On E: T5.0	Greg Joseph
14:45	14:55	Break	
14:55	16:45	Theoretical Test	Field Engineering
16:45	16:50	Wrap Up – Q & A	Field Engineering

Rules & Expectations

» Attention

- ♦ Pay attention to the trainer
- ♦ Cell phones allowed during breaks **ONLY!**

» Best Practices

- ♦ Do not make comments during the training sessions
- ♦ Questions are welcome

» Participation

- ♦ Participate in the “Hands On” sessions at least once daily

» Test results:

- ♦ Minimum required pass score to get a Certificate - 60%

FIELD ENGINEERING CERTIFICATE OF COMPLETION

This certificate is granted to

Student Technician

As an employee of Atlas Fitness
for successfully completing the
Life Fitness Technical Service Training Class.

Alex Menektchiev
Field Engineering Manager
May 15, 2009

This certification is valid until May 14, 2011.

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WHAT WE LIVE FOR

Sources of Information and Support

» Customer Support Services (CSS)

- ♦ Phone number: 1-800-351-3737
- ♦ Email: CustomerSupport@LifeFitness.com
- ♦ Address:

**5100 N. River Rd.
Schiller Park, IL. 60176
M-F 8am – 5pm**

» Local Life Fitness Technical Specialist

» Field Engineering

- ♦ Will be contacted by CSS when necessary

» Technical Support Website

- ♦ www.lftechsupport.com

Contacting CSS

» Items Needed When Contacting CSS

- ◆ Facility Name and Location
- ◆ Contact Name and Phone Number
- ◆ Serial Number of Product

» Problem Reporting Questions

- ◆ What is the problem?
- ◆ When is the problem occurring?
- ◆ Where is the problem occurring?
- ◆ How can the problem be reproduced?

Serial Numbers

» **Most product revisions have dedicated serial number ranges with a three letter alpha code:**

» **95Ti-XXXX-02**

♦ Treadmills Ti - LED Console **TTJ**100000

» **95Ti-XXXX-07**

♦ Treadmills Ti - LED Console **TSS**100000

» **95T-XXXXXX-01**

♦ Treadmill – Elevation with LED or LCD Console **TWT**100000

» **CLSR-XXXXXX-01**

♦ Treadmill – Classic with LED Console **CLR**100000

Product Code

95X-ALLXX-02
CLSR-ALLXX-01
95Ti-XXXX-07

MODEL/TYPE

95Si / 95Se - Stepper
95Xi / 95Xe - Cross Trainer
95Ci / 95Ce - Cycle Upright
95Ri / 95Re - Recumbent
95LI / 95Le - Summit
CLSC - Classic Lifecycle
CLSX - Classic Crosstrainer

...

CONFIGURATION

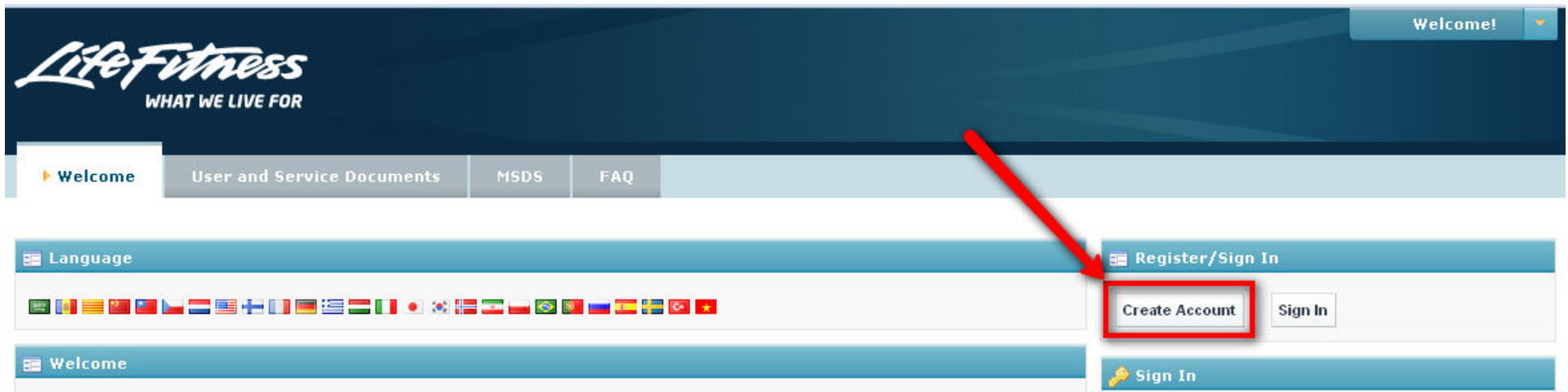
Overlay Language
Software Application
Voltage
Line Cords
Units (English or Metric)
TV tuner supported standard

VERSION

Added Features
Frame stability
Color schema

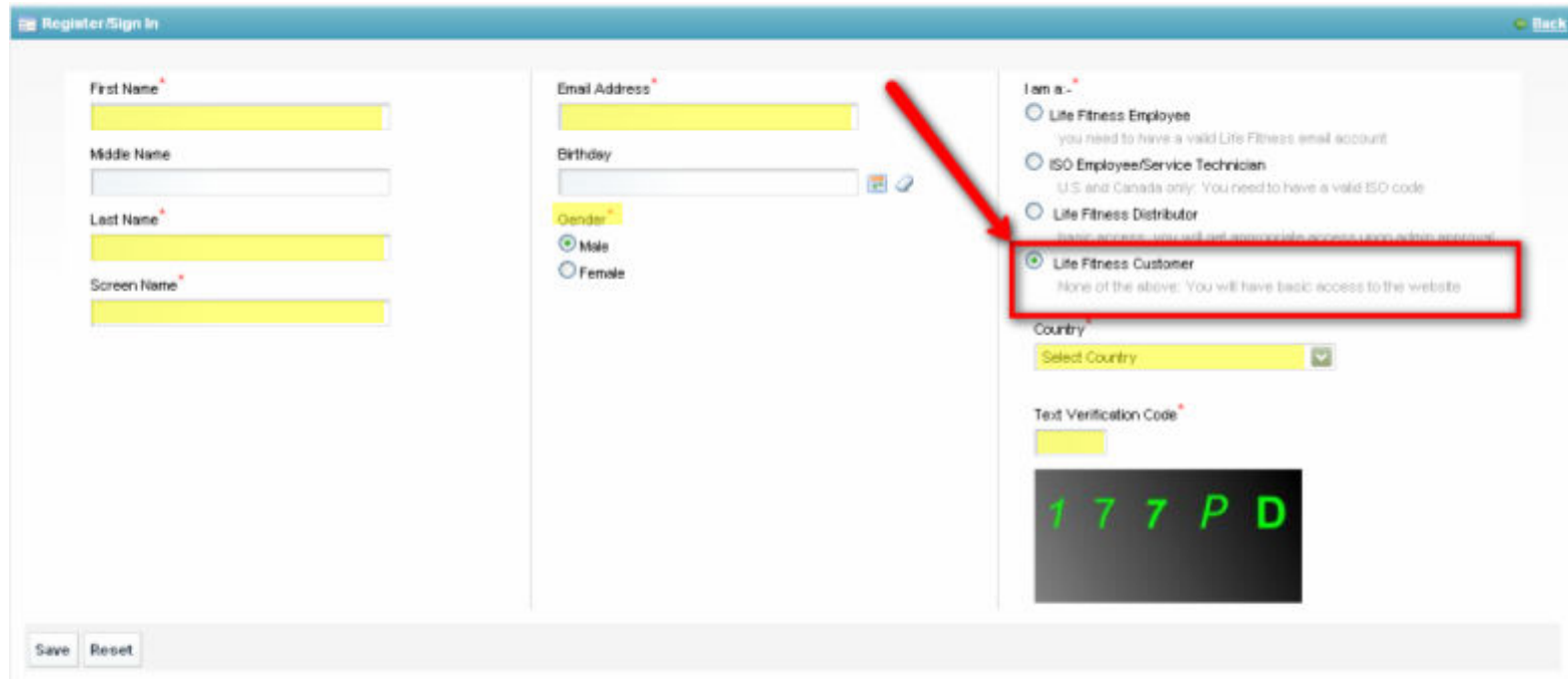
Technical Support Website

- » To access service documents please visit:
<https://www.lftechsupport.com>
- » For access to Service manuals, bulletins and software, please register on the website. Follow the steps below:



Create Account – non ISO

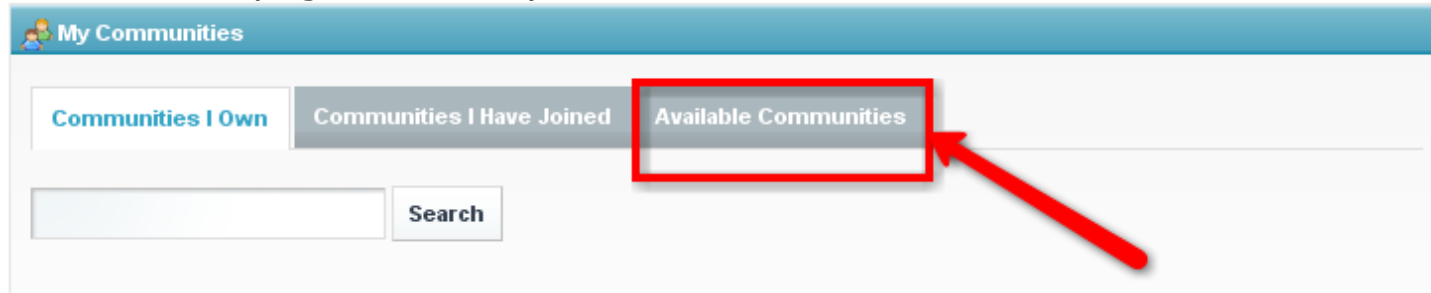
- » If you are not an ISO (ISP) register by selecting the option “Life Fitness Customer”. After registering you will receive a conformation email with your password. To get appropriate level of access, log in and under My Communities, Available communities, Request Membership.



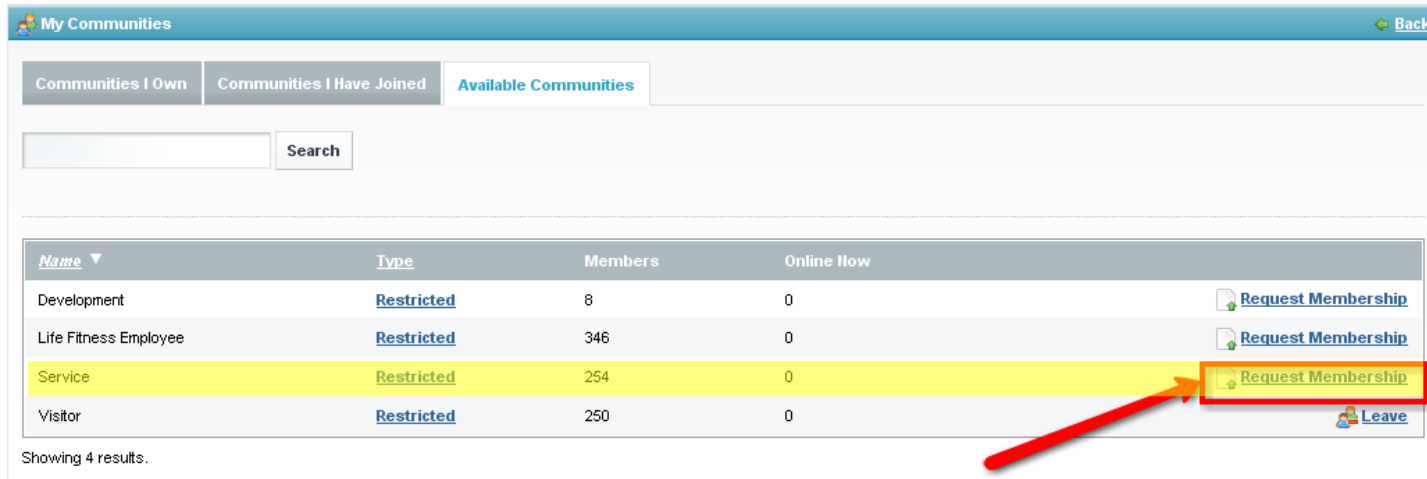
The screenshot shows the 'Register/Sign In' page of the Life Fitness website. The form is divided into three main sections. The left section contains input fields for 'First Name', 'Middle Name', 'Last Name', and 'Screen Name'. The middle section contains fields for 'Email Address', 'Birthday', and 'Gender' (with radio buttons for 'Male' and 'Female'). The right section, titled 'I am a:', contains four radio button options: 'Life Fitness Employee', 'ISO Employee/Service Technician', 'Life Fitness Distributor', and 'Life Fitness Customer'. The 'Life Fitness Customer' option is selected and highlighted with a red rectangle. A red arrow points to this option from the 'Email Address' field. Below the radio buttons are fields for 'Country' (a dropdown menu) and 'Text Verification Code' (a text input field). A CAPTCHA image showing the characters '1 7 7 P D' is displayed below the verification code field. At the bottom left of the form are 'Save' and 'Reset' buttons. A 'Back' link is located at the top right of the form.

Request Access – non ISO

- » You will receive an email with a password. Login to the website. On the Welcome page, under My Communities, select Available Communities:



- » Find "Service" and click on "Request Membership"



- » In the comment window, describe your company name, your position and your company's relationship to Life Fitness.

Create Account – ISO

- » If you are an ISO (ISP), provide all required information, including your company name from the list and your assigned by Life Fitness Tech ID. After registering you will receive a conformation email with your password and appropriate level of access

Register/Sign In Back

First Name*

Middle Name

Last Name*

Screen Name*

Email Address*

Birthday

Gender*
☒ Male
☐ Female

I am a -*
☐ Life Fitness Employee
you need to have a valid Life Fitness email account
☒ ISO Employee/Service Technician
U.S. and Canada only. You need to have a valid ISO code.
☐ Life Fitness Distributor
basic access, you will get appropriate access upon admin approval
☐ Life Fitness Customer
None of the above: You will have basic access to the website

Country* Company Name*

ISO Code*

5 characters ISO code.
Format XXyyy - X-Alphabet y-
Number

Text Verification Code*

177PD

Save Reset

Document Library

☐ Assembly Instructions
☐ Installer Alerts
☐ Operation Manual
☐ Parts Manual
☒ Service Bulletins
☐ Service Manuals
☐ Software

You searched for: **generator**

Search Results (5)

Items per page: 20
Page 1 of 1

Display Name / Filename	Last Modified Date
Service Bulletins, 95C Elevation SB LC LC101209R00 Subject Elevation Series Upright and Recumbent Bikes – Belt Alignment English.pdf	6 Jun 2011
Service Bulletins, 95C Elevation SB LC LC09072201N Tension Spring Replacement English.pdf	6 Jun 2011
Service Bulletins, Common SB CT EC09042401R4 Elevation Series Resistance Related Issues English.pdf	20 Sep 2010
Service Bulletins, 95C Elevation SB LC LC10031201R5 Elevation Series Bikes Performance Improvement English.pdf	6 Jun 2011
Service Bulletins, Engage - 15in LCD SB CN EC08090201N_No_Power_or_High_Resistance.pdf	24 Apr 2009

Frequently Searched (20)

Frequently Downloaded (5)

Recently Updated (5)

Recently Added (5)

Related Tag (22)

95c 95r 95x ann anp dat dba dca dct dla dlb dlc dlt dmb dmc dmt dnb dnt dtm dtn itn itp

Search Results

4.

**EC09042001R2 Elevation Series
Resistance Related Issues**



**/Commercial/Cardio/Cross Trainer/95X/95X-
ALLXX-0X_XTM100000/Bulletin/**

Service Bulletin

Date September 10, 2009 ☐ original ☒ revised	Software Version/Release N / A	Warranty ☐ Parts ☐ Labor ☒ Normal Warranty	Pages 15	Author Bart Bizon Alex Menektchiev
Document No.:	EC09042401R2			
Subject:	Elevation Series: Resistance Related Issues			
Time Required:	☐ 15 min ☐ 30 min ☒ 45 min ☐ 1 hr+			
Distribute To:	☒ Internal ☒ Dealer ☒ ISO ☒ Installer			

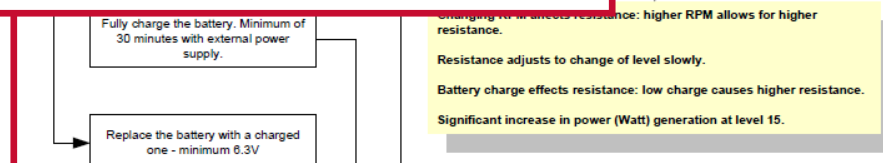
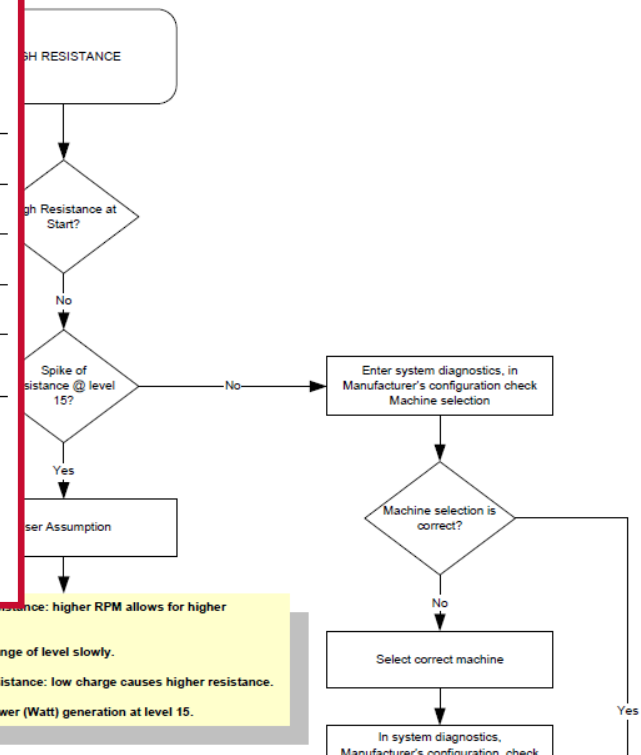
Life Fitness proprietary and confidential information. For the use of the intended recipient only. Do not reproduce or distribute. Warranty information applies to North American units only. Outside North America, contact the local Life Fitness representative.

DESCRIPTION

Introduction

This document describes the theory of operation and the most common issues related to the Generator Brake System.

Flowchart: High Resistance at Start?



Technical Documentation

» Life Fitness creates and provides following documentation to all its customers:

- Operation / Owner's Manual
- Assembly Instructions
- Parts List / Manual

» Field Engineering creates and provides the following documentation to the technical support and field repair staff.

- Service Manuals
- Service Bulletins
- Software and Hardware Upgrade Instructions

Tool List

- » Screwdrivers: Standard, Phillips
- » Open End Wrenches: 3/8", 7/16", 1/2", 9/16", 3/4", 11/4"
- » Open End Wrenches: metric set – 6mm, 8mm, 10mm, 13mm, 15mm, 17mm, 19mm
- » Allen Head Wrenches: 5/64", 3/32", 5/32", 7/32", 3/16", 5/16", 1/8", 3/8", 1/4"
- » Allen Head Metric: 2.5mm, 3mm, 4mm, 4.5mm, 5mm, 6mm, 7mm, 8mm
- » Torx Bits and Driver: T8, T9, T10, T15, T20, T25, T27, T40, T45, T50, T55
- » Ratchet Wrenches: 1/4", 3/8", 1/2"
- » Torque Wrenches: 1/4", 3/8"
- » 6 Point Deep Sockets: 1/4", 3/8", 1/2", 9/16", 5/32", 3/4"
- » Nut Driver (1/4" Drive Socket Set):
 - ♦ 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 7/16", 1/2"

Tool List (continued)

- » Needle-Nose Pliers
- » Internal / External Retaining Ring Pliers
- » Diagonal Cutters, Small and Medium
- » Strap Wrench
- » Small Flashlight
- » Scribe
- » Straight Edge
- » Tape Measure
- » Light Lubricating Oil (i.e. 3-IN-1)
- » TF-1000 Grease (White Lithium)
- » Grease Gun
- » 242 Loctite® (Blue)
- » Break Free®
- » Center Punch
- » Grab Tool
- » **Calibrated Torque Wrench**
- » Rubber Mallet / Dead Blow
- » Drill and Extractor Bits
- » Dremel ®
- » E-Ring Tool 1/2" , 1"
- » Soft Cloth
- » **Laptop Computer**
- » **Multimeter with Test Leads**
- » **Current Meter**
- » **Anti-Static Strap**
- » **Disposable vinyl, rubber or silicone gloves**
- » **Temperature and humidity meter**
- » **Outlet Tester**
- »

Tool List - Specialty Tools

» Life Fitness Tools

- ◆ Offset Crank Arm Wrench P/N: 0K18-01235-0001
- ◆ Bearing Removal Tool Kit P/N: BEARINGTOOLKIT

» LeMond Tools

- ◆ Bottom Bracket Socket (1/2") P/N: LEM11186
- ◆ Crank Arm Puller P/N: LEMCCP4
- ◆ Puller Flywheel Pulley P/N: LEM11225
- ◆ Lock Ring Remover P/N: LEMHCW5

» Software Tools for Update thru the CSAFE Port

- ◆ Reprogramming software:
 - > Flash Programmer (version 1.0.4, build 10.1.7.1, K87B-12601-0000);
- ◆ Reprogramming hardware:
 - > DB9-to-RJ45 adapter – P/N: AK58-00122-0000;
 - > USB-to-serial converter – P/N: 0017-00021-3153;
 - > Network cable.

» CSAFE Loopback test cable

Cleaning

- » Do not spray directly on to the equipment. Chaining the cleaning bottles to the wall, or using pre-moistened cleaning wipes instead, would help.
- » Use a 100% cotton cloth, lightly moistened with water and mild liquid detergent, to clean the product.
- » Other fabrics, including paper towels, may scratch the surface.
- » **Do NOT use ammonia, chlorine, alcohol or acid-based cleaners.**
- » Suggested cleaning agents, available for purchase from Life Fitness:
 - ◆ Pure Green 24;
 - > Using Pure Green 24 with a micro-fiber cloth on club equipment will both clean and disinfect without the toxic chemical residue. You also have the benefit of 24 hour residual protection.
 - ◆ XL cleaning wipes.

Summary

- » What was the first Life Fitness exercise machine?
- » What is the main benefit of the modular training?
- » What is the main source of technical information for Life Fitness equipment?
- » What electrical tools are required for servicing Life Fitness equipment?
- » What chemicals are not acceptable as ingredients for cleaners used on Life Fitness equipment?

Questions





THANK YOU!

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