GO™ CONSOLE

GC-000X-0104, GC-020X-0104, GC-040X-0104, GCT-000X-0103,
GC-000X-0105, GC-020X-0105, GC-040X-0105,
GCT-020X-0103, GCT-040X-0103,
GCT5-000X-0103, GCT5-020X-0103

SERVICE MANUAL

10.01.14

LifeFitness
WHAT WE LIVE FOR

Table of Contents

Introduction

Warranty Information

Model	3 Years	1 Year
Go Console	Electrical Parts & Mechanical Parts ***Note:*** *Excludes 3V batteries*	Labor

What is covered:

This Life Fitness consumer product (“Product”) is warranted to be free of all defects in material and workmanship.

Who is covered:

The original purchaser or any person receiving a newly purchased Product as a gift from the original purchaser.

Warranty will be voided on subsequent transfers.

How long is it covered:

Residential: All electrical and mechanical components and labor are covered, after the date of purchase, as listed on the chart above.

Non-Residential: Warranty void (this Product is intended for residential use only).

Who pays Shipping & Insurance for Service:

If the Product or any warranted part must be returned to a service facility for repairs, Life Fitness will pay all shipping and insurance charges during the warranty period (within the United States only). The purchaser is responsible for shipping and insurance charges after the warranty has expired.

What we will do to correct covered Defects:

We will ship to you any new or rebuilt replacement part or component, or, at our option, replace the Product. Such replacement parts are warranted for the remaining portion of the original warranty period.

What is not covered:

Any failures or damage caused by unauthorized service, misuse, accident, negligence, improper assembly or installation, debris resulting from any construction activities in the Product’s environment, rust or corrosion as a result of the Product’s location, alterations or modifications without our written authorization or by failure on your part to use, operate and maintain the Product as set out in your User Manual (“Manual”). All terms of this warranty are void if this Product is moved beyond the continental borders of the United States of America (excluding Alaska, Hawaii and Canada) and are then subject to the terms provided by that country’s local authorized Life Fitness Representative.

What you must do:

Retain proof of purchase. Use, operate and maintain the Product as specified in the Manual; notify the place of purchase of any defect within 10 days after discovery of the defect; if instructed, return any defective part for replacement or, if necessary, the entire Product for repair. Life Fitness reserves the right to decide whether or not a product is to be returned for repair.

User Manual:

It is VERY IMPORTANT THAT YOU READ THE MANUAL before operating the Product. Remember to perform the periodic maintenance requirements specified in the Manual to assure proper operation and your continued satisfaction.

Product Registration:

Register online at www.lifefitness.com/home/product-registration.html. Our receipt assures that your name, address and date of purchase are on file as a registered owner of the Product. Being a registered owner assures coverage in the event you lose your proof of purchase. Please retain your proof of purchase, such as your bill of sale or receipt.

How to get Parts & Service:

Refer to page one of this manual for your local service contact information. Reference your name, address and the serial number of your Product (consoles and frames may have separate serial numbers). They will tell you how to get a replacement part, or, if necessary, arrange for service where your Product is located.

Exclusive Warranty:

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES OF ANY KIND EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER OBLIGATIONS OR LIABILITIES ON OUR PART. We neither assume nor authorize any person to assure for us any other obligation or liability concerning the sale of this Product. Under no circumstances shall we be liable under this warranty, or otherwise, of any damage to any person or property, including any lost profits or lost savings, for any special, indirect, secondary, incidental or consequential damages of any nature arising out of the use of or inability to use this Product. Some states do not allow the exclusion or limitation of implied warranties or of liability for incidental or consequential damages, so the above limitations or exclusions may not apply to you. Warranties may vary outside the U.S. Contact Life Fitness for details.

Changes in Warranty not authorized:

No one is authorized to change, modify or extend the terms of this limited warranty.

Effect of U.S. State Laws:

This warranty gives you specific legal rights and you may have other rights which vary from state to state.

Using This Manual

This service manual is applicable to the Go Console. Information in the manual represents a typical configuration and may differ slightly from actual equipment. The manual provides recommendations for safe and efficient approaches to service situations.

This manual contains information regarding Errors displayed on the console, troubleshooting the console and how to replace parts on the console. See the *Go Console Compatibility Matrix* section for a list of exercise machines that are compatible with the Go Console. Please note that the heart rate board for the F3 and T3 treadmills is located in the console bridge and not in the console assembly.

Descriptions using the words “left” and “right” refer to the orientation from the perspective of the user using the exercise machine, i.e.: sitting on the bicycle seat, standing on the treadmill’s striding belt, facing the console. “Front” is the area of unit with the console, the “rear” of the treadmill is behind the user.

This manual is arranged in following sections:

Introduction

This section includes a Serial Number Locator guide for the Go Console, a *Go Console Compatibility Matrix* that lists the Treadmill and non-Treadmill (Bike and Cross-Trainer) console with compatible exercise machine bases, and *Contact Information*.

Theory of Operation

This section describes the working principles of the Go Console.

Diagnostics

This section is used to determine the causes of symptoms, mitigations for problems, and provide possible solutions to issues.

Troubleshooting

Troubleshooting Tables and Flow Diagrams are provided on several malfunctions including non-responsive keypads, non-responsive touch screens, and improper working of console features.

Settings Menu

This section describes which default settings are possible to change through the console.

How To’s

This section provides instructions on replacing console components including option panel, overlays, bezel assemblies, and analog tuners.

Introduction

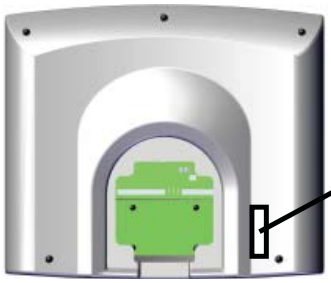
Go Console with Cross-Trainers /Bikes (GC-0X0X-0105)

Front

Back

Go Console with Cross-Trainers / Bikes (GC-XXXX-0104)

Front



Back

Go Console with Treadmills (GCT-000X-0103)

Front

Back

Serial Number Location

When contacting Customer Service

To speed Life Fitness Customer Support Service's response, please be prepared to provide the following information:

- Model number
- Serial number (starts with a 3 or 4-letter product code followed by 12 numbers)
- Symptom of problem
- How to reproduce the problem, if possible.

Go Console Compatibility Matrix

The following table lists the exercise machine bases that are compatible with the Go series consoles.

Base Machine		Go Consoles			
Model	Description	GC-0X0X-0105	GC-0X0X-0104	GCT-0X0X-0103	GCT5-0X0X-0103
C1-XXXX-0104	C1 Lifecycle Exercise Bike	X	X		
C3-XXXX-0104	C3 Lifecycle Bike	X	X		
F3-XXXX-0103	F3 Consumer Treadmill			X	
R1-XXXX-0104	R1 Consumer Exercise Bike	X	X		
R3-XXXX-0104	R3 Consumer Exercise Bike	X	X		
RS1-XXXX-0105	RS1 Consumer Exercise Bike	X			
RS3-XXXX-0105	RS3 Consumer Exercise Bike	X			
T3-XXXX-0103	T3 Consumer Treadmill			X	
X1-XXXX-0104	X1 Consumer Cross-Trainer	X	X		
X3-XXXX-0104	X3 Consumer Cross-Trainer	X	X		
X5-XXXX-0104	X5 Consumer Cross-Trainer	X	X		
X8-XXXX-0104	X8 Consumer Cross-Trainer	X	X		
E1-XXXX-0105	E1 Consumer Cross-Trainer	X			
E3-XXXX-0105	E3 Consumer Cross-Trainer	X			
E5-XXXX-0105	E5 Consumer Cross-Trainer	X			
T5-XXXX-0103	T5 Consumer Treadmill				X

CORPORATE HEADQUARTERS

Columbia Centre III, 9525 West Bryn Mawr Avenue, Rosemont, Illinois 60018 • U.S.A.
847.288.3300 • FAX: 847.288.3703
Service phone number: 800.351.3737 (toll-free within U.S.A., Canada)
Global Website: ***www.lifefitness.com***

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Service Website: *www.lifefitness.com/parts*
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Store Operating Hours:
9:00 -20:00 (BRT) (Monday-Friday)
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info.iberia@lifefitness.com
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8.30h-15.00h (Friday)

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Shibuya-Ku, Tokyo
Japan 151-0051
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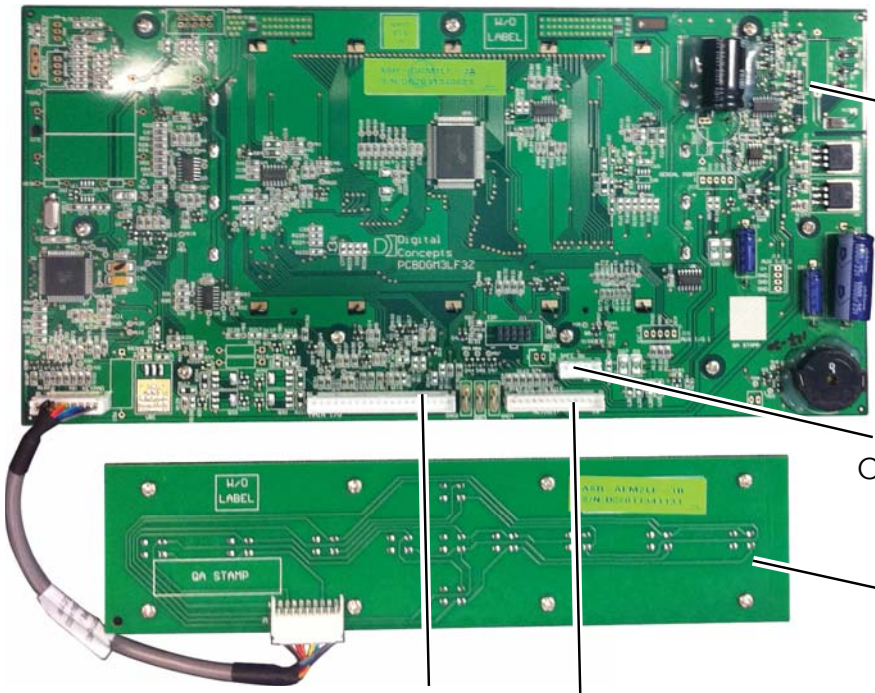
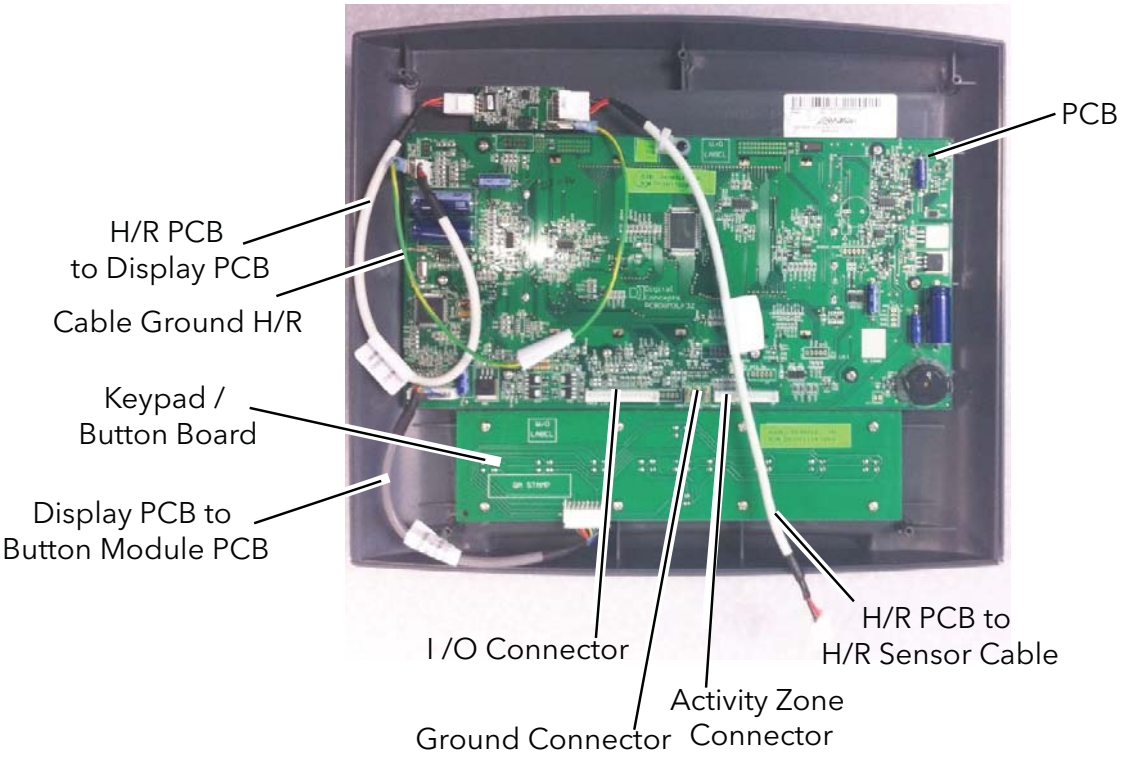
* Also check www.lifefitness.com for local representation or distributor/dealer

Theory of Operation

Go Console with Treadmills (GCT-000X-0103)

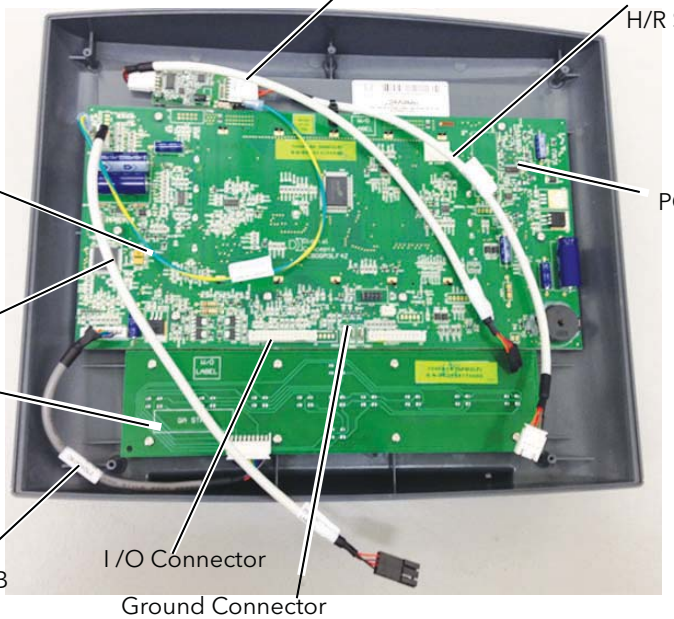


Bikes / Cross-Trainers (GC-XXXX-0104)

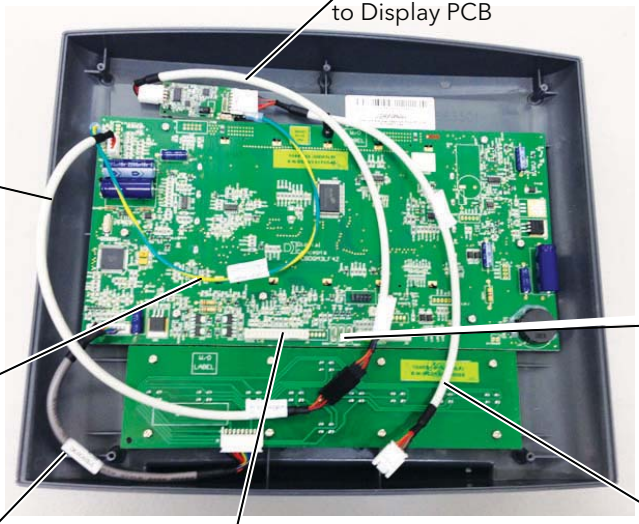


Bikes / Cross-Trainers (GC-0X0X-0105)

E3 & E5 Pig Tail Not Connected

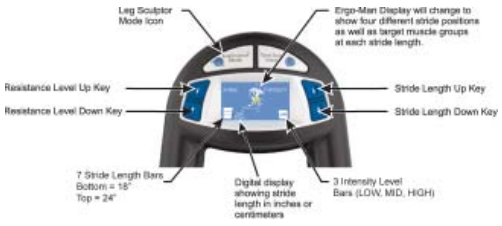


RS1, RS3, & E1



Treadmill Activity Zone

E5 Activity Zone



E3/X3/X5 Coach Zone

Go Console
The console provides the primary interface for the user. The consoles have keys by which the user can select various exercise programs and resistance settings (levels). The display shows speed, heart rate, resistance level and other information. There is a specific Go console for the Bike/Cross Trainer products and a second Go console specifically for treadmills. For more details on the product bases please refer to their respective base service manuals.

Consoles have five (Bike/ Cross-Trainer) or four (Treadmill) connectors that attach to the product base. Different configurations of base products use different connectors as described below.

Bike/Cross-Trainer Console Specific Connector Descriptions

- Activity Zone Connector - allows remote keys on the Activity Zone to be read by the console (X3/X5 and X8 only).
- I/O Connector - brings speed, resistance control and 9VDC power signals into the Console.
- Contact Heart Rate Connector - brings signals from the hand sensors to the contact heart rate board in the console. The E3 and E5 have the Heart Rate board in the Activity Zone.
- Ground Connector - grounds the console board to the base product.
- Auxiliary Power Connector – delivers supplemental power to the console from the power supply on the C3 & R3 bikes.

Treadmill Console Connector Descriptions

- Activity Zone Connector - brings key press information for the activity zone membrane switch plus signals from the heart rate board that is located in the console bridge to the console.
- I/O Connector - brings communication information plus power for the console from the motor control board.
- Ground Connector - grounds the console board to the base product.
- Safety Switch Cable Connect - connects the E-Stop reed switch board found in the console bridge to the console (Treadmills Only)

Consoles have two (Treadmill) or three (Bike/Cross Trainer) circuit boards inside the plastic housing.

- Programmed Console Board – This is the heart of the console. It contains the back lit LCD panel, ErP functions as well as the programmed processor.
- Keypad/Button Board – The buttons/keys on the console are a combination of hard capped or silicone buttons. The buttons press against tactile switches that are mounted to the keypad board. The silicone button forms a water resistant seal between the console plastic and the keypad board. The keypad board communicates to the programmed console board via a cable inside the console.
- Heart Rate Board – found on Bike/Cross-Trainer consoles only; on Treadmills the Heart Rate Board is located in the bridge. This is a combination board that contains both telemetry and contact.

Activity Zone (Treadmill)

The Activity Zone supports a membrane switch that allows the user to quickly change common workout parameters such as speed and incline. The membrane switch connects to a small interconnect board located within the console bridge assembly. A separate cable runs from the interconnect board to the console that carries the signal from both the membrane switch and also the heart rate board. Also attached to the interconnect board is the output cable from the heart rate board that is mounted inside the bridge assembly.

Activity Zone (X3/X5 & E3/E5 Cross-Trainers)

The Activity Zone supports a keypad interface to allow the user to quickly control the products resistance level as well as two program selections. There is a small microprocessor in the Activity Zone that runs the programs shown on the Activity Zone. The programs in the Activity Zone do not interact with the main console. The Activity Zone also incorporates a three digit, seven segment LED time display and individual LED indicators for program selection and muscle group illumination.

Glossary

Term	Definition
Connectors	Electrical plugs used to connect wiring into electrical component.
Console	The electronic component used for making direct input settings and monitoring the output messages displayed in the digital readout display. Also known as ‘console PC board’ and ‘display console board’
CHR	Contact Heart Rate - component which measures heart rate by sensing electrical impulses in the user’s hands.
EEPROM	Electrically Erasable Programmable Read-Only Memory.
EEROM	Electrically Erasable Read-Only Memory.
ErP	Energy related products - A standard in European countries that requires a product to enter a low energy state when the product is not in use.
Heart Rate (HR) Board	Device that receives both the telemetry and contact signals. It filters these signals and transmits them to the main console board.
LED	Light Emitting Diode
Lens	This is the screen printed plastic component that covers the LCD.
LCD	Liquid Crystal Display
PCB	Printed Circuit Board
RPM	Rotation Per Minute
Telemetry Heart Rate	A device directly in front of the operator that monitors heart rate via radio frequencies transmitted by the chest strap.
USB	Universal Serial Bus - connector used to save workouts and program the Track console.
VDC	Volts Direct Current
Vsys	System Voltage, the voltage at which the unit’s electrical components operate.

Diagnostics

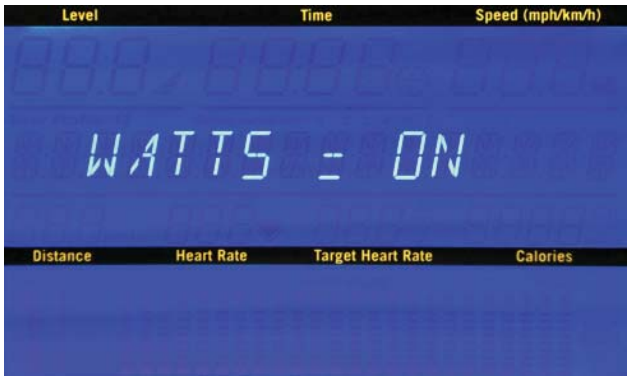
Access to Diagnostics
Diagnostics can be accessed only from the Idle mode.
When the console is powered up, a “PLEASE WAIT” message is displayed on the screen. Once the “PLEASE WAIT” message disappears, press and hold the PAUSE key until the word “DIAGNOSTICS” appears.
These topics can be viewed or tested in Diagnostics:

- Watts (Bikes and Cross-Trainers only)
- Software verions
- Display test
- Keypad test
- Calibration (C3/R3 and F3/T3)
- Hardware test
- Heart rate test
- Unit statistics
- Photo shoot
- Watchdog test
- Error log

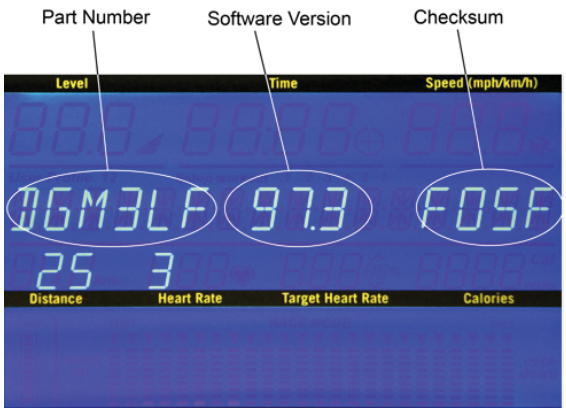
Press the UP arrow to advance to the WATTS option.
Press RESET to return to the DIAGNOSTICS screen.
Press RESET again to exit DIAGNOSTICS.

Watts (Bikes and Cross-Trainers only)

Access to turn the watts display in the calorie window *On* or *Off*.
While in the Watts option the message center will display as shown at right:
Options: ON or OFF
Default value is OFF
Press the UP arrow to scroll through the options (ON or OFF).
Press ENTER to save the selected option which will also advance to SOFTWARE VERSION screen.
Press RESET to exit and return to the WATTS screen.
Press RESET again to return to the DIAGNOSTIC screen.

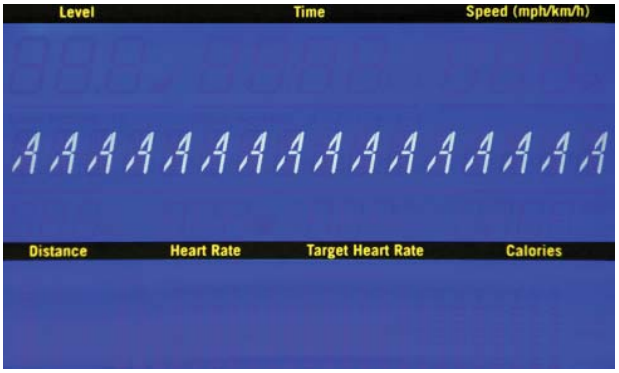


Software Version
Displays current console software version.
Press ENTER to display the software versions as shown at right.
Press RESET to return to the SOFTWARE VERSION screen.
Press the UP arrow to advance to the DISPLAY TEST option.
Press RESET again to return to the DIAGNOSTIC screen.



Display Test
Tests if all display segments are functioning properly.
Press ENTER. The Display Test will run automatically.
While the test is in progress, the user can interrupt and progress through the test manually by using the RIGHT or LEFT ARROW.
Press ENTER to resume automatic testing, which will loop continuously after initial completion.
Press RESET to exit at any time.
Press the UP arrow to advance to the KEY TEST option.
Press RESET to return to the DISPLAY TEST screen or
Press RESET (again) to return to the DIAGNOSTIC screen.

Key Test



Tests if all display segments on the main console and activity zone are functioning properly.

Press ENTER to start the Key Test. Pressing any key will display a letter as shown at right.
The chart below lists the keys and the corresponding displayed letter. When a key is pressed, a letter should be displayed followed by a beep.
Press RESET to exit and return to the DISPLAY TEST screen.
Press the UP arrow to advance to the CALIBRATION option, or
Press RESET to return to the DIAGNOSTIC screen.

Key	Displayed Letter/ Number	Key	Displayed Letter/Number
User Settings	A	Go System Speed - Walk (treadmill) or Lower Body (cross-trainer)	O
User Profiles	B	Speed Down (treadmill)	Q
Pause	C	Incline Up (treadmill)	R
Arrow Up	D	Incline Down (treadmill)	S
Arrow Down	E	Go System Speed - Jog (treadmill)	U
Arrow Left	F	Go System Incline - Low (treadmill	W
Arrow Right	G	Go System Incline - High (treadmill)	Y
Enter	H	Start (treadmill)	Z
Race Mode	I	Stop (treadmill)	1
Goal Workouts	K	Leg sculptor (X8 only)	No Response
Go System Incline - Mid (treadmill) or Resistance Up Arrow (cross-trainer)	L	Stride up (X8 only)	No Response
Speed Up (treadmill) or Resistance Down Arrow (cross-trainer)	M	Stride down (X8 only)	No Response
Go System Speed - Run (treadmill) or Total Body (cross-trainer)	N		

Calibration - C3, R3, & RS3

This is used to set the scaling factor applied against the control voltage for the generator brake resistance.
The diagnostics test menu item **CALIBRATION** will be displayed in the message center.
Press ENTER.
The profile window will display “CAL” as shown (C).
The level window will show the brake resistance value (A).
Default is 1. Range is 1-20.
The up and down arrows are used to change the *brake resistance* level (A).
The message center displays the scaling factor (B)
applied against the voltage output to the brake. The left arrow increases the scaling factor (B). The right arrow decreases the scaling factor (B).

- Default scaling factor = 1.00
- Range = .50 - 1.50 to window will display the PWM value for the drive motor
- Increment = .01

Note: Changing the scaling factor will change the resistance at every level of the workout by that level.
Changes to the scaling factor are saved when calibration is exited.

Automatic Calibration - F3/T3

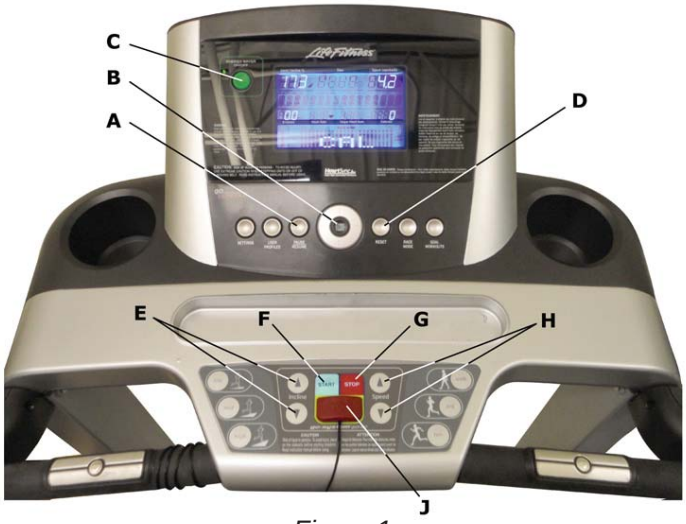


Figure 1

1. Press the *On/Off* button (C, Fig. 1) to turn the treadmill on, or if on press the *Reset* (D, Fig. 1) key.

The console will display *PLEASE WAIT* or *WAIT.*

2. When *PLEASE WAIT* or *WAIT* disappears and the screen is blank, press and hold the *Pause* key (A, Fig.1) until *DIAGNOSTICS* appears.
3. Use the arrow keys (B, Fig.1) to scroll through the diagnostics menu to *CALIBRATION* (Fig. 2).
4. Press *Enter* (B, Fig. 1) to bring up the CAL display (K, Fig.3).

Figure 2

Important: For the following step, stand on the floor next to the treadmill. Do not stand on the treadmill.

5. Press *Start* (F, Fig. 1) to begin Automatic Calibration.

Your treadmill will now automatically cycle through a series of tests including speed and incline in order to complete calibration.
Note: Pressing *Stop* (G, Fig. 1) will pause calibration. The time window will display PAUSE which will flash on and off. Pressing *Start* (G, Fig. 1) will resume calibration.
Note: Pulling the *safety stop* key (J, Fig. 1) will stop calibration. Replacing the safety key will reboot the console and return to *Select Workout*.

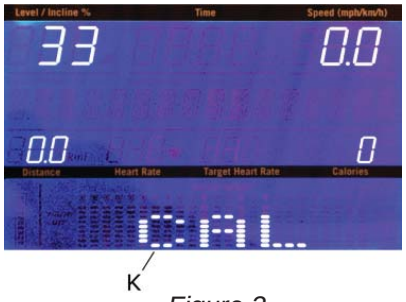


Figure 3

After calibration is completed, the time window will display PASS or FAIL (Fig. 4). If calibration fails, the reason code will be displayed in the time window. See *Treadmill Calibration 'Fail' Messages* section (see page 25) for more information.

Figure 4

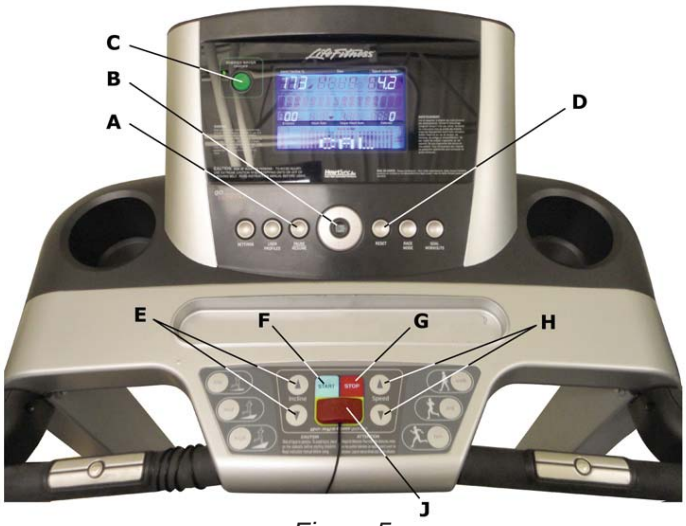


Figure 5

Note: For most cases the *Automatic Calibration* procedure is sufficient.

1. Press the *On/Off* button (C, Fig. 5) to turn the treadmill on, or if on press the *Reset* (D, Fig. 5) key.

The console will display *PLEASE WAIT* or *WAIT.*

2. When *PLEASE WAIT* or *WAIT* disappears and the screen is blank, press and hold the Pause key (A, Fig. 5) until *DIAGNOSTICS* appears.
3. Use the arrow keys (B, Fig. 5) to scroll through the diagnostics menu to *CALIBRATION* (Fig. 6).
4. Press *Enter* (B, Fig. 5) to bring up the CAL display (Fig. 7).

Figure 6

Important: For the following steps, stand on the floor next to the treadmill. **Do not stand on the treadmill while it is in motion!**

5. Press Enter to begin Manual Calibration (B, Fig. 5).

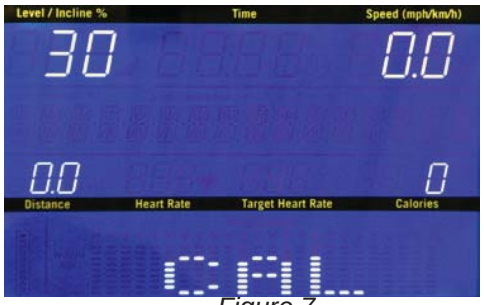


Figure 7

Note: Pressing the up and down arrows (B, Fig. 5) will successively display calibration parameters listed in the order shown below.

- Minimum elevation - displayed as ELV MIN
- Maximum elevation - displayed as ELV MAX
- Minimum PWM - displayed as MIN PWM
- Half maximum PWM - displayed as HF MAX PWM
- Maximum PWM - displayed as Max PWM

6. Press the *up arrow* (B, Fig. 5) which will display ELV MIN - Minimum Elevation (Fig. 8).
7. Press the up or down *Incline arrow* (E, Fig. 5) to set the *current value* (B, Fig. 8).
8. Press the *Start key* (F, Fig. 5) which will display the value at (A, Fig. 8) and save it into the EEPROM. This sets the new current value.

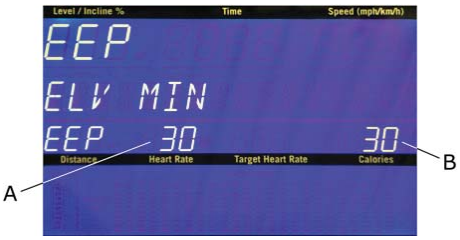


Figure 8

Note: You can at any time...

- Press *Reset* (D, Fig. 5) to exit manual calibration which will return to the Diagnostic KEY TEST screen.
- Press the RESET key repeatedly to exit Diagnostics.
- Press the UP arrow key (B, Fig. 5) while CAL is displayed on the screen which will advance to the Diagnostic HW TEST screen.

9. Press the *up arrow* (B, Fig. 5) which will display ELV MAX - Maximum Elevation (Fig. 9).
10. Press the up or down I*ncline arrow* (E, Fig. 5) to set the *current value* (B, Fig. 9).
11. Press the *Start* key (F, Fig. 5) which will display the value at (A, Fig. 9) and save it into the EEPROM. This sets the new current value.

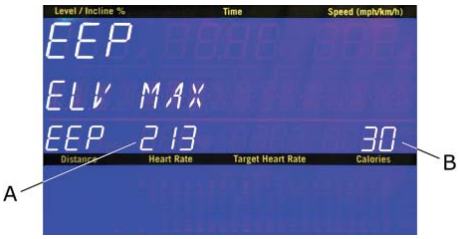


Figure 9

12. Press the *up arrow* (B, Fig. 5) which will display MIN PWM - Minimum PWM.
13. Press the up or down *Speed arrow* (H, Fig. 5) to set the *current value* (B, Fig. 10).
14. Press the *Start* key (F, Fig. 5) which will display the value at (A, Fig. 10) and save it into the EEPROM. This sets the new current value.

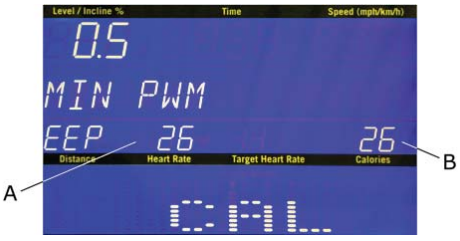


Figure 10

15. Press the *up arrow* (B, Fig. 5) which will display HFMX PWM - Half maximum PWM (Fig. 11).
16. Press the up or down *Speed arrow* (H, Fig. 5) to set the *current value* (B, Fig. 11).
17. Press the *Start* key (F, Fig. 5) which will display the value at (A, Fig. 11) and save it into the EEPROM. This sets the new current value.

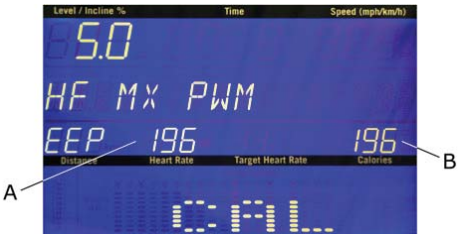


Figure 11

18. Press the *up arrow* (B, Fig. 5) which will display MAX PWM - Maximum PWM (Fig. 12).
19. Press the up or down *Speed* arrow (H, Fig. 5) to set the *current value* (B, Fig. 12).
20. Press the *Start* key (F, Fig. 5) which will display the value at (A, Fig. 12) and save it into the EEPROM. This sets the new current value.

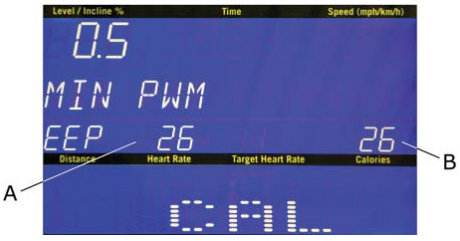
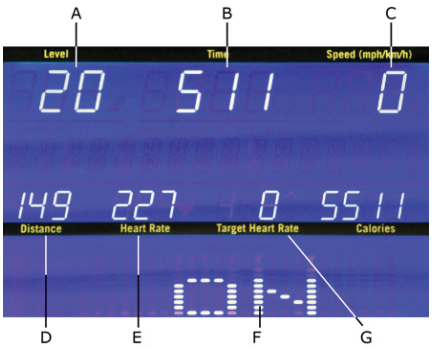


Figure 12

Hardware Test
Press ENTER to display the screen at right, then refer to Bikes/Cross-Trainers or Treadmills for display explanations.



Bikes/Cross-Trainers

A - Servo Motor resistance

- for C1, R1, and RS1 (Eddy Current Products) - the left and right arrow keys adjusts the Servo Motor resistance; display (A) changes with movement
- for C3, R3, and RS3 (Generator Products) - display (A) always 0; left and right arrow keys are non-functional

B - Generator Resistance

- for C3, R3, and RS3 (Generator Products) - up and down arrow keys adjust generator resistance; values 0-511 (higher values = greater resistance)
- for C1, R1, and RS1 (Eddy Current Products) - up and down arrow keys are non-functional

C - Speed in RPM

D - Power Input Value - value range 140-165

E - Cable ID Value

- for C1, R1, and RS1 - value range 220-235
- for C3, R3, and RS3 - value range 80-100
- for X1, X3, X5, E1, E3, and E5 - value > 10

F - n/a

G - n/a

Press RESET to exit and return to the HARDWARE TEST screeen.
Press the UP arrow to advance to the HR TEST (Heart Rate) option.
Press RESET again to return to the DIAGNOSTIC screen.

Treadmill

A - Incline

- left and right arrow keys adjusts the elevation motor (incline) displayed in (A)

B - Motor Speed

- up and down arrow keys (or speed UP/DOWN keys) adjust generator resistance
- value range 0-511 (higher values = greater motor speed)
- Max pwm should trigger the controller to stop the motor

C - PWM

- increased value indicated increased speed

D - not used

E - Cable ID Value

- for F3 - value < 220
- for T3 - value > 10
- for X1, X3, X5 - value > 10

F - Motor Relay Status

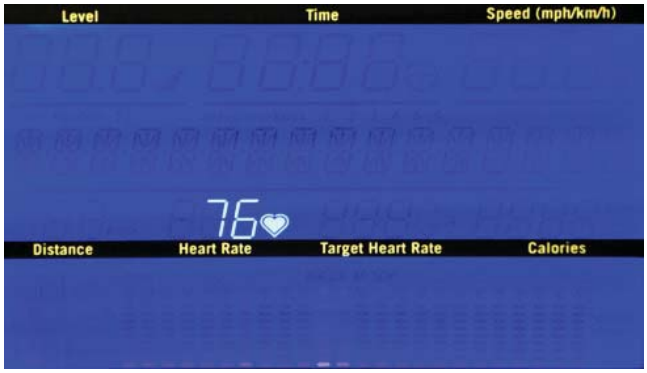
- Stop key toggles motor relay ON or OFF

G - Tilt Sensor

- for F3 - value > 25 for deck folded up
- for F3 < 200 for deck folded down
- for T3 - value should be around 125

Press RESET to exit and return to the HARDWARE TEST screen.
Press the UP arrow to advance to the HR TEST (Heart Rate) option.
Press RESET again to return to the DIAGNOSTIC screen.

HR (Heart Rate) Test

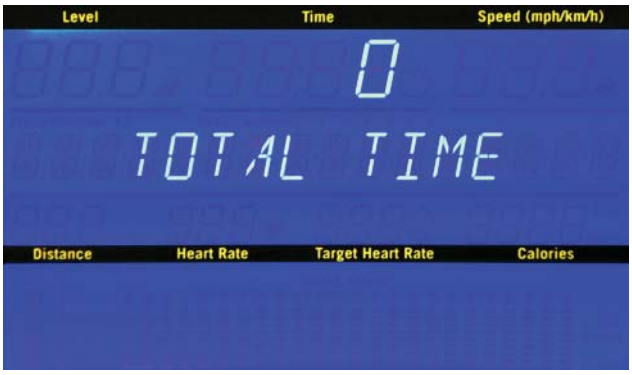


Tests the heart rate system. If a telemetry signal is detected, it will be displayed. Telemetry can be turned off in the Settings menu.

Press ENTER - a heart will appear in the Heart Rate window as shown at right.
Hold the contact sensors.
User's heart rate will appear to the left of the heart.

Note: Contact HR takes priority in this test mode. If both contact and telemetry are detected, contact will be displayed.

Press RESET to exit and return to the HEART RATE screen.
Press the UP arrow to advance to the STATISTICS option.
Press RESET again to return to the DIAGNOSTIC screen.



Statistics

For Treadmill - displays the total accumulated lift time in hours.
For Bikes and Cross-Trainers - displays Total Distance

Press ENTER to display the Total Time screen. Total hours are shown in the time window. Resolution is 1 hour.
Max displayed time is 9999 hours. The message center will display (shown at right):

TOTAL TIME

Pressing the UP ARROW will display the *Total Distance* screen. Pressing the DOWN ARROW returns to the Total Time screen.
Total Distance is shown in the time window. Resolution is 1 mile. Max displayed distance is 9999 miles. The message center will display:

TOTAL DISTANCE

Pressing the up arrow from the *Total Distance* screen brings up a message to use the down arrow to clear statistics. The message center will (repeatedly) alternately display:

PRESS DOWN ARROW

followed by

TO CLEAR STATISTICS

Pressing the down arrow clears only the distance statistics. The message center will display the following until the user presses reset or the console goes into energy saver:

UNIT STATS CLEAR

Press RESET to exit and return to the STATISTICS screen.
Press the UP arrow to advance to the PHOTO SHOOT option.
Press RESET again to return to the DIAGNOSTIC screen.

Photo Shoot

Non-functional data, displays a screen created for photographs. This screen is used primarily for marketing. It does not change.

Pressing ENTER will display image shown at right for *bikes* and *cross-trainers*. Image for *treadmills* is similar.

Press RESET to exit and return to the PHOTO SHOOT screen.
Press the UP arrow to advance to the WATCHDOG TEST option.
Press RESET (again) to return to the DIAGNOSTIC screen.

Watchdog Test

Perform this test only if instructed to do so by Life Fitness.
Note: When this test is performed, upon completion the console will exit out of the Diagnostics mode.

Error Log

Press ENTER to display any errors the unit has experienced.

Pressing the UP arrow to return to the first Diagnostic option - WATTS (Bikes and Cross-Trainers) or SOFTWARE VERION (Treadmills).
Press RESET to return to the ERROR CODE screen.
Press RESET (again) to return to the DIAGNOSTIC screen.

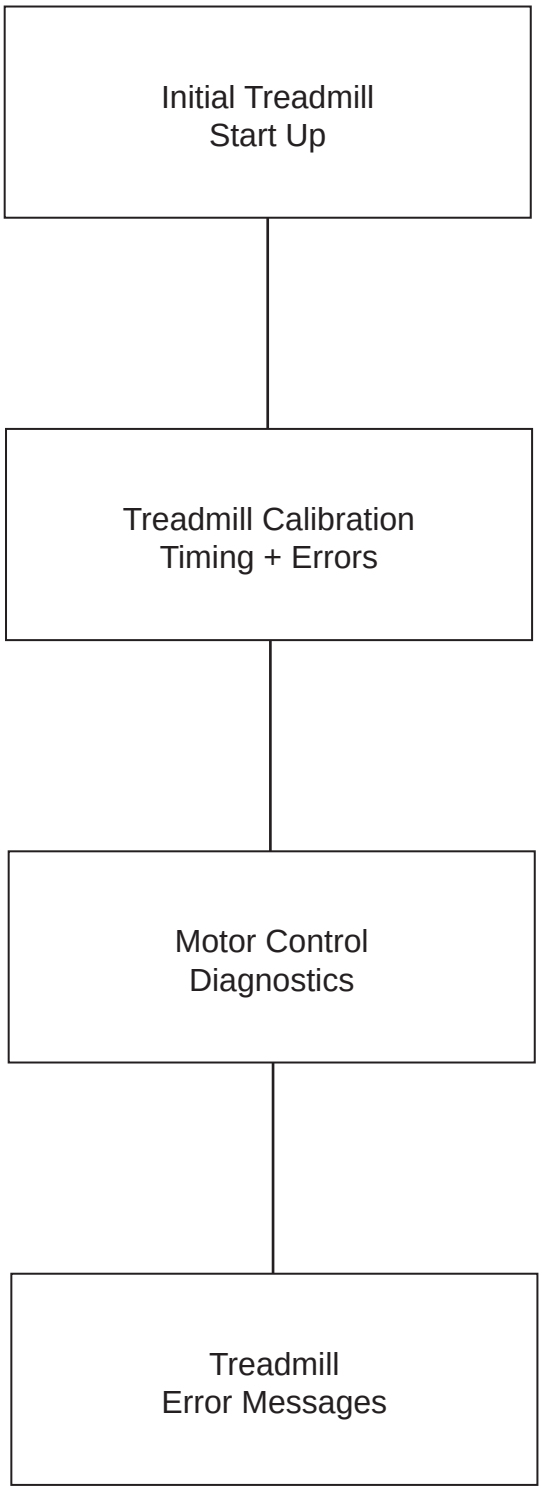
Troubleshooting Guide

Symptom	Probable Cause	Corrective Action
No Power	On/Off Switch (F3/T3/X8/E5 Only)	Power cycle the product and ensure switch is in the “on position”
	Insufficient power source (F3/T3/X8/E5 Only)	Plug the treadmill or cross-trainer into an operating outlet.
	Damaged line cord or power supply	Replace the line cord or power supply.
	Line cord improperly seated in socket	Inspect the power connection for proper contact at the electrical outlet, power supply and at the machine.
	Product may be in Energy Saver Mode	Press the Energy Saver button or power cycle the unit.
	Cable damaged or incorrectly plugged in during installation.	Verify that all customer assembly connections are working properly. Unplug and re-plug each connection to verify. Look to see if any cables were pinched during assembly.
Unit resets randomly [or] pauses [or] console buttons do not respond when pressed	Insufficient power source	Plug the treadmill or X8 or E5 into an operating outlet.
	Line cord improperly seated in electrical outlet	Inspect the power connection for proper contact at the electrical outlet and at the machine.
	Loose or damaged cable connections at display console or motor controller	Disconnect and reconnect the cable at the motor controller and the console. Replace the cable if necessary.
	Open ground path	Using a multimeter, check all points for continuity: console mounting screws, handlebar screws, and upright post screws to the frame with respect to ground. Ground must be non-painted surface.
	Console has entered “Energy Saver” mode	Press the Energy Saver button or power cycle the unit to exit Energy Saver. You can turn Energy Saver off in the settings menu.
Console display looks strange or has an error message and is not functioning	May be a problem with the product or the console processor may simply need to be reset.	Power cycle the unit by either using the On/Off switch or unplugging the power supply. This resets the console. If another error message appears after power reset and the product running refer to the error list below.
“OVER SPEED ERROR” message on console (Treadmills Only)	Belt Speed is higher than expected	Refer to the Treadmill Error Message section of this manual.
“RUN AWAY ERROR” message on console (Treadmills Only)	Belt speed increases more than expected.	Refer to the Treadmill Error Message section of this manual.
“ELEV REV DIR” error message on the console (Treadmills Only)	The elevation motor is running in the opposite direction of command.	Refer to the Treadmill Error Message section of this manual.
“SPEED STALL” error message on the console (Treadmills Only)	Drive motor not running when expected or damage OPTO on motor	Refer to the Treadmill Error Message section of this manual.
“SPEED RANGE” error message on the console (Treadmills Only)	Belt speed is outside of normal expected operating range.	Refer to the Treadmill Error Message section of this manual.
“OFF” Displayed in Incline window (Treadmills Only)	This is an error of the elevation system.	Refer to the Treadmill Error Message section of this manual.

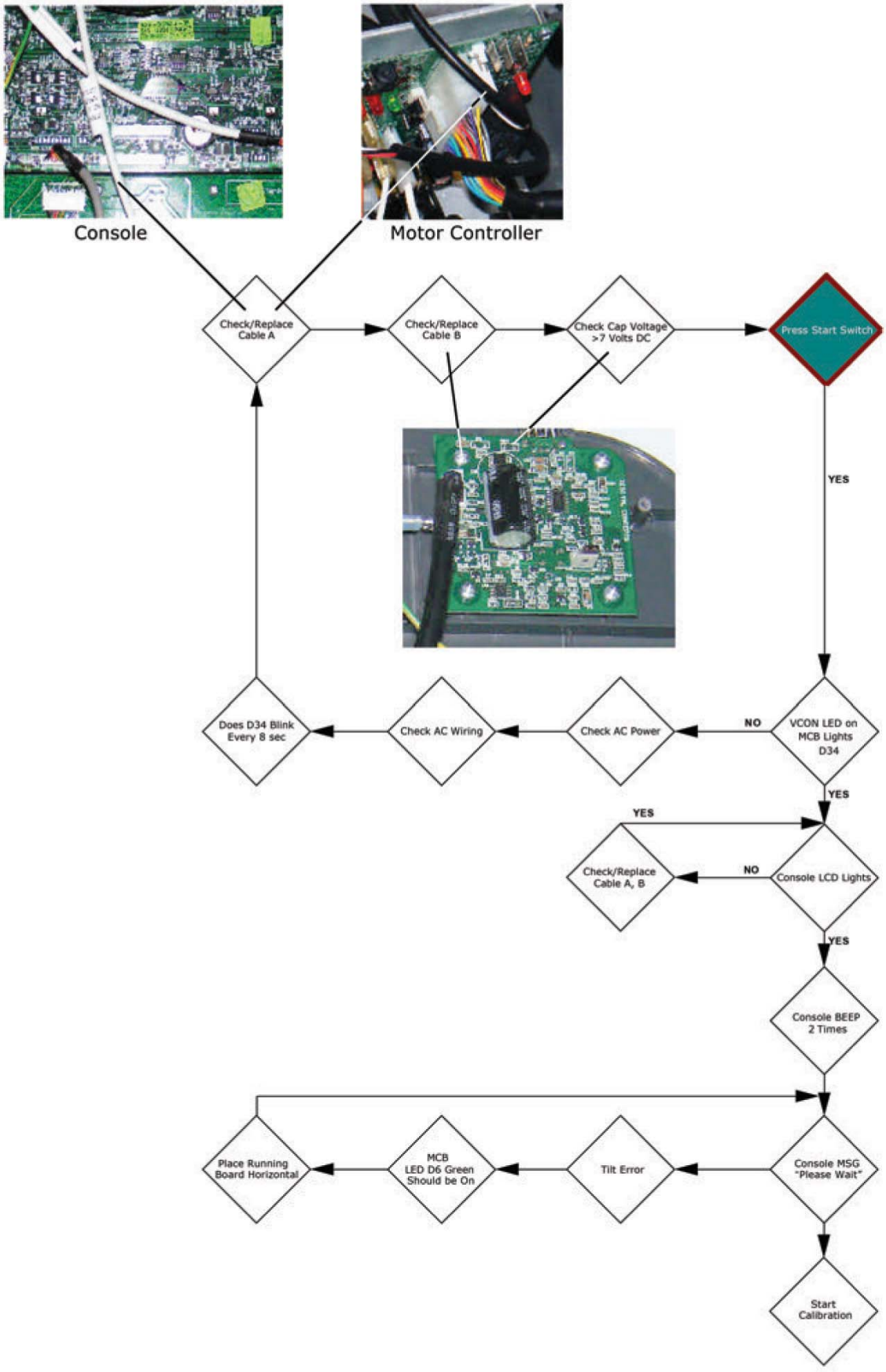
Symptom	Probable Cause	Corrective Action
“OFF” Displayed in Level window (Bikes and Cross-Trainers)	This is a communication error between the servo motor that adjusts the resistance level and the console.	Refer to the Bike/Cross-Trainer Error Message section of this manual.
“STUCK KEY” error displayed on the console.	There is a stuck key detected on the console or activity zone.	Refer to either the Bike/Cross-Trainer Error Message section or Treadmill Error Message section depending on the product with the problem.
“FOLDED” displayed (Treadmills Only)	This is the message that appears when the F3 is folded up.	Refer to the F3 service manual for more information on this message.
“IMMOBILIZED” displayed (Treadmills Only)	This is a state on the treadmills where the keys have been locked out via a key press combination.	To exit “IMMOBILIZED” press the “Speed Down” and “Stop” keys at the same time.
“REPLACE SWITCH” displayed (Treadmills Only)	This is the message displayed when the safety switch is not properly positioned on the activity zone.	Properly place the switch. For further information on this message, please refer to the treadmill service guides.
No heart rate signal from hand sensors	No heart rate reading	Faulty cable connection. Verify heart-rate cable is properly connected to both the product base and to the heart rate board. Using an ohmmeter, verify continuity at the main console cable.
	Faulty hand sensors or heart rate cable	Test the heart rate cable for continuity. Enter HR Test mode (See diagnostics section) to see if the contact heart board is functioning. No heart rate reading indicates a lack of communication between the hand sensors and the display console or a faulty heart rate board. Replace the heart rate cable or the hand sensors as necessary.
	Contact Heart Rater Value appears after holding the sensors for 15-20 seconds	It is normal for it to take this long to get a contact heart rate value on the console. The console and heart rate board are working together to get a consistent heart rate reading prior to displaying the value.
The contact heart rate sensors are not reading my heart rate correctly.	Poor contact between the user’s hands and the contact heart rate sensors	Clean hand sensors with a mild dishwashing liquid and water.
		Be sure to grasp the sensors firmly and keep hands still. If heart rate seems substantially higher or lower than expected, remove hands from sensors until heart rate disappears.
		Tips for contact heart rate: 1. Dry hands to prevent slipping on the sensors. 2. Apply hands to all four sensors (two in each hand). 3. Grasp sensors firmly. 4. Apply constant pressure to the sensors. May need to wait longer for heart rate to display.
		Contact Heart rate does not perform well for some users. Recommend using telemetry heart rate as a better alternative.

Symptom	Probable Cause	Corrective Action
Display shows a continuous heart rate or heart rate disappears after functioning normally	RF interference	Use of personal electronic devices, such as cell phones and portable mp3 players causes external noise interference. Equipment is in close proximity to other sources of noise such as audio/video equipment, fans, two way radios, and high voltage/high current power line. Remove the source of noise or reposition the exercise equipment.
Telemetry Heart Rate is not working	Chest Strap sensors making poor contact with the body of the user	Adjust the chest strap location and moisten the sensors to make better contact with the skin. To aid in diagnosis of telemetry heart rate issues go to HR test mode in Diagnostics. That way you can test the board without being in an actual workout program. For more information on HR Test, refer tot he HR Test section in the manual.
	User out of monitoring range	Move within 3 feet (1 meter) of the heart rate board. Signal distance can be reduced due to RF interference or low battery.
	Loose cable connection between heart rate board and console board.	Go into HR Test mode in Diagnostics. Check to see if you can get either a contact or telemetry heart rate value. If you can get either, there is not a cable problem.
	Telemetry heart rate turned off in settings.	Turn Telemetry heart rate back on.
	Battery in chest strap needs replacement.	Replace chest strap battery CR2032
“MCBUS” Error (Treadmills Only)	Large drops in line voltage from either the wall (thunder storms) or a bad power relay on the motor controller.	Try a power reset and test the product. Be sure to try an E-Stop. If error repeats and voltage supplied from the wall is consistent, replace the motor controller.

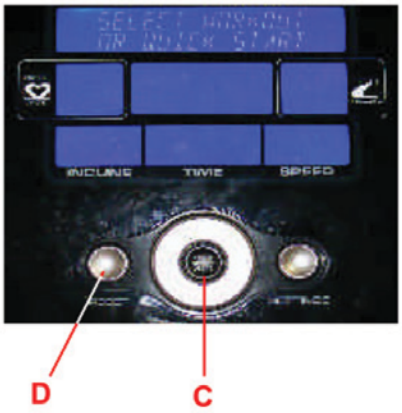
Treadmill Troubleshooting Guide

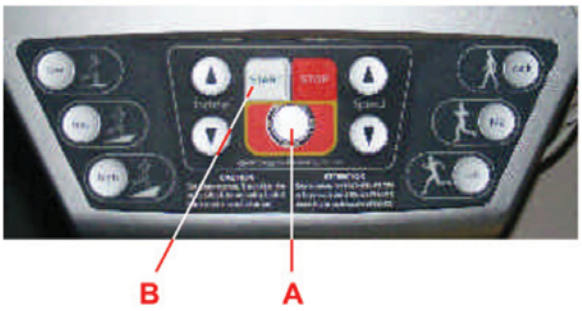


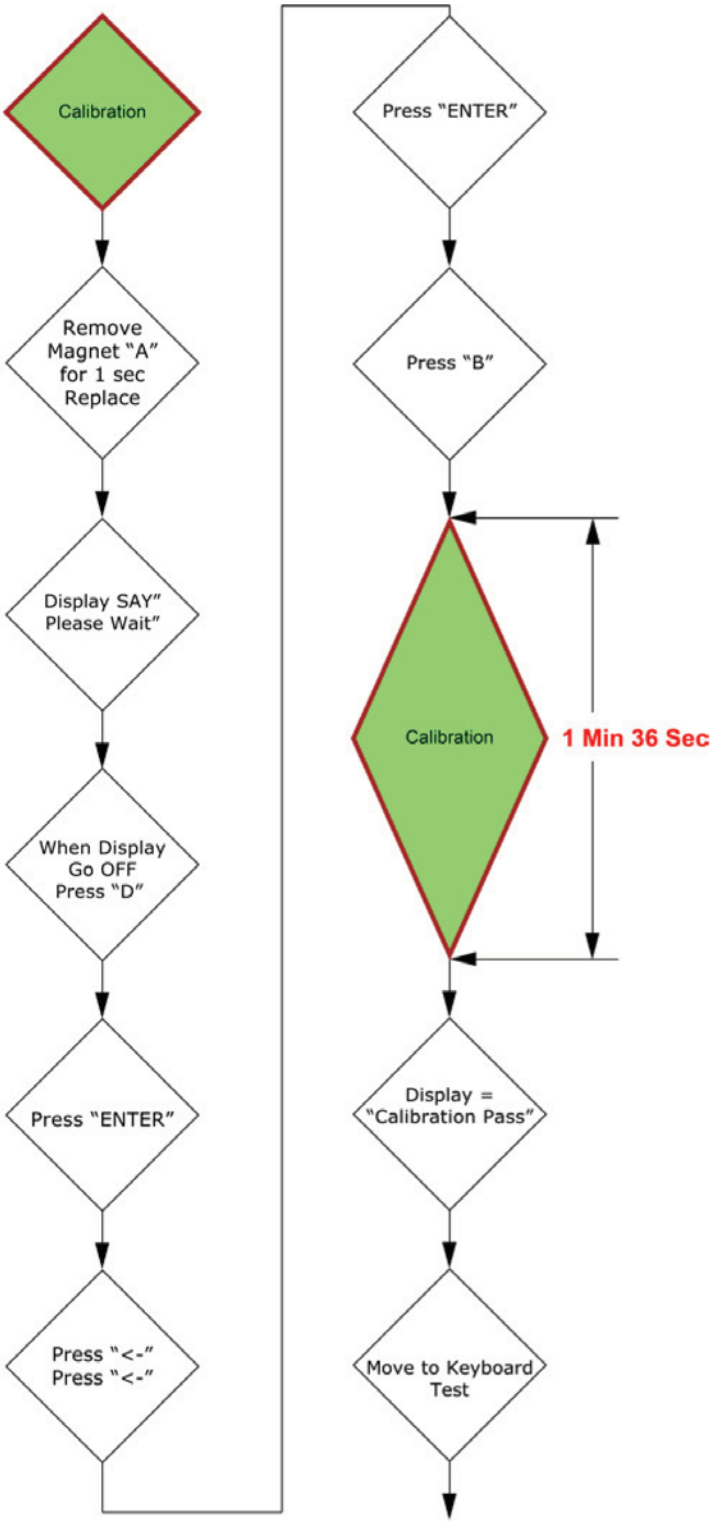
Go/Track Treadmill Initial Startup



Treadmill Calibration Timing and Errors







IMPORTANT: It is very important that the treadmills are calibrated after replacement of any of the following parts: MCB, actuator, motor or console.

Treadmill Calibration ‘Fail’ Messages

Auto-Calibration Failures

Whenever you have a calibration ‘Fail’ please note the error message that is listed and any other information listed anywhere on the console display. Be sure to try calibration a second time prior to proceeding with any diagnosis steps.

The following are the possible messages that can occur related to a fail calibration, the errors definition and also possible solutions.

PWM Errors

MIN PWN TIME
HALF PWM TIME
MAX PWM TIME

Definition:
During the calibration procedure, the console outputs a specific PWM and expects both an “Acceleration to a speed range” as well as a “Time to meet this predefined feedback.” These errors all relate to PWM timing.

Probable Cause / Solution =
Anyone of these three errors is caused by the following problems and/or failures:

1. MIN PWM TIME is always caused by a bad speed sensor, disconnected speed sensor or stalled belt/motor.
2. HALF OWM TIME - MAX PWM TIME is caused by a dirty optical wheel on the speed sensor or some type of subtle loading of the main belt drive system.
3. A pinched, damaged or improperly connected cable between the motor controller and the console.

MIN PWM RANGE
HALF PWM RANGE
MAX PWM RANGE

Definition:
During the calibration procedure, the console outputs a specific PWM and expects “Acceleration to a speed range.” This error denotes that the console required a higher PWM output to get to a specific speed range.

Probable Cause / Solution =

1. The HALF PWM RANGE error is caused by some type of subtle loading of the main belt drive system.
2. The MAX PWM RANGE error is caused by some type of subtle loading of the main belt drive system or a minor difference in motors.
3. A pinched, damaged or improperly connected cable between the motor controller and the console.

Note: If there appears to be no issue with the loading of the main drive belt system, there is a “Max Speed Pot” located on the Motor controller labeled R122.

This can be adjusted CW in 5% increments to increase the overall dynamic speed range. Note that if this adjustment is made and then a different error code is displayed upon re-calibration, then there is likely a subtle loading somewhere within the drive train.

Elevation Errors

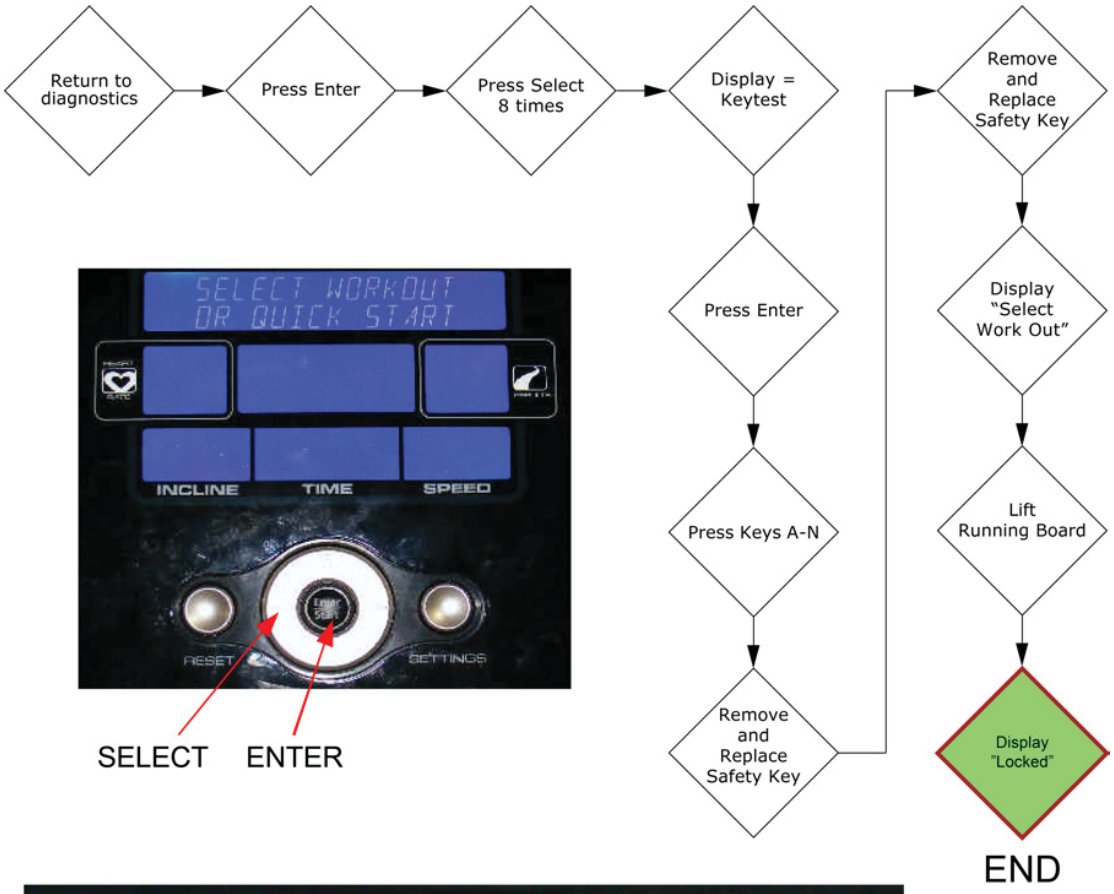
MIN ELEV TIME
MAX ELEV TIME

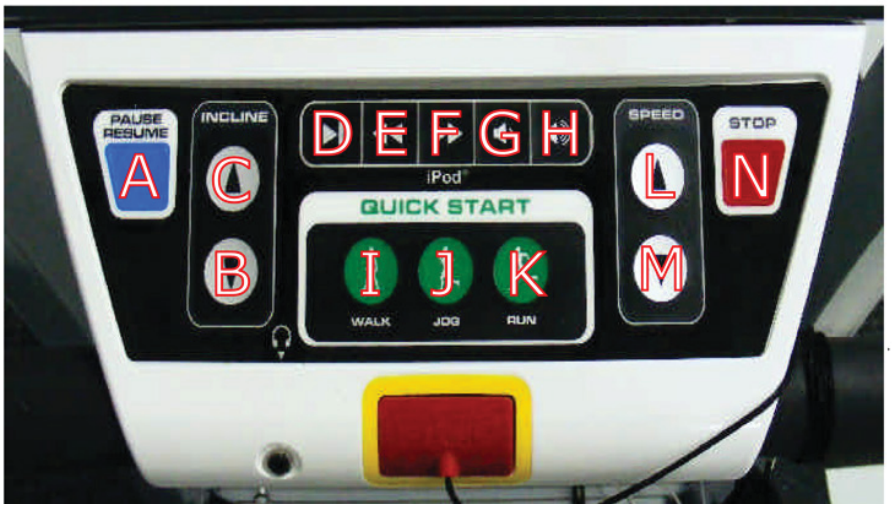
Definition:
During the calibration procedure, the console outputs specific elevation angles and reads the potentiometer on the incline motor. If this communication is not received by the console or if values are different, then this error will occur.

Probable Cause / Solution =

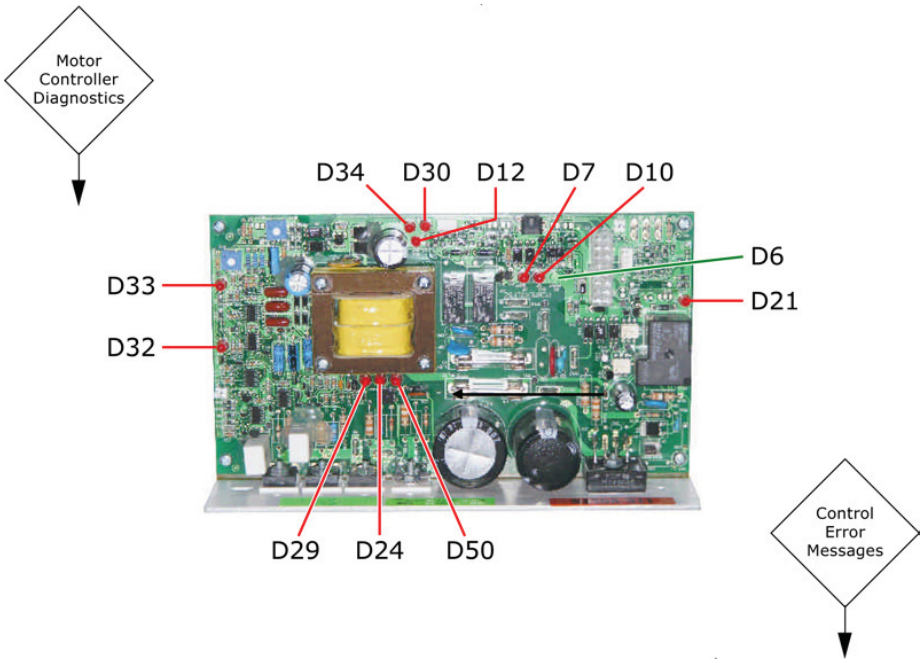
1. A pinched, damaged or improperly connected cable between the motor controller and the console.
2. A disconnected Potentiometer cable on the incline motor.
3. Mechanical binding within the elevation mechanics (life frame).

Console Key Test





Motor Control Diagnostics

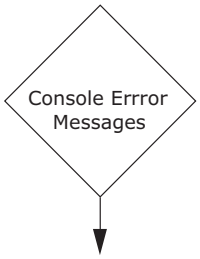


Label on Board	Name	Description
D33	18V	Turns on when the transformer secondary that is attached to power ground outputs power. This indicated that the low voltage transformer is working and implies that the “hot side” control electronics are active.
D50	MTR AC	Motor AV applied to DC Buss (Relay output is activated).
D7	DOWN	Current is flowing in the elevation control circuit to allow for the down relay controlling the elevation motor to activate.
D32	I LIM	Turns on when the current flowing through the motor reaches the circuit set maximum. This indicates that the system is loaded to or beyond its capacity.
D29	MTR SHRT	Turns on when excessive current passes through the FET. This LED implies that there is a short in the motor or motor wing.
D24	MTR VOL	Turns on dimly when power is first applied and becomes brighter as the large capacitor charges. When the LED is bright, this indicates that the motor controller is ready to power the motor.
D12	PWM	Turns on when the incoming PWM signal is logical high with a duty cycle of less than 99%. The LED will seem to become brighter as the incoming PWM approaches 99% because it is flashing at a greater rate than the human eye can see.
D6	READY	This is a green LED. This LED will light when the treadmill is in the horizontal position. When the treadmill is folded the LED will be off.
D21	RELAY	Turns on when the console commands the relay to turn on. This indicates that power is present at the relays to energize them. It implies that the motor controller and the console are communicating.
D30	SPD	Flashes each time the speed sensor is triggered. This indicates that the speed sensor is working and communicating with the motor controller.
D10	UP	Current is flowing in the elevation control circuit to allow for the up relay controlling the elevation motor to activate
D34	VCON	Turns on when the voltage regulator on the transformer secondary attached to Chassis Ground that supplies the console outputs power. This indicates that the low voltage transformer is working and implies that there is enough power to turn the console on and that the “cold” side electronic is active.

Bike/Cross-Trainer Error Messages

The console can display two main error codes that may occur if there is a malfunction on the bike or cross-trainer. The error codes are:

- OFF displayed in Level Window “Resistance motor communication Error”
- Stuck Key Error



The first step to all error codes is to simply reset the power to the product to see if the error will repeat. If the error does repeat, please refer to the following definitions and potential solutions to the problem the error is representing.

OFF displayed in Level Window - Resistance Motor Communication Error
(1) This error is set if the console does not see any movement in the resistance motor after the console has sent a command for it to move.
(2) Power shall be turned off to the resistance motor and the level window shall display “OFF.” The product shall continue to operate but no changes to level shall be possible.
(3) Must cycle power to reset the error.

Probable Cause / Solution
1. Try a power reset for the product. Then check to see if error is still occurring when trying to change resistance.
2. Servo motor incorrectly calibrated. First, try Auto Calibration on the console, then see the Servo motor calibration sections contained within the base products service manuals.
3. Damaged electrical cable somewhere between the console and the servo motor. Check all cable connections to verify continuity from the console to the Servo motor. Replace cables as needed.
4. Damaged/malfunctioning Servo motor - replace Servo motor.
5. Problem within the console - Replace the console or console circuit board.

Stuck Key Error
(1) This error identifies a stuck key on the console (C1, C3, R1, R3, RS1, RS3) or activity zone (X3, X5, X8, E3, E5).
(2) If the console detects a key is actuated for over 45 seconds, the error will display.
(3) The bike or cross-trainer must be power cycled to clear this error.

Probable Cause / Solution
1. When Stuck Key Error is displayed, the console automatically runs through a continual cycle to determine which keys are stuck. In the HEART RATE window, a value will cycle between 0 and 5. At the same time, a value will be shown in the RESULTS window. Note, when the value in the results window is not ‘0000’ and also the corresponding value in the HEART RATE window. With this information, refer to the chart on the following page to determine if the problem is a key on the main console board or the activity zone:

Go Bike/Cross-Trainer Console

Console Board			Activity Zone Membrane Switch		
Key	**Value in HR Window (Row)**	**Value in Results Window (Column)**	**Key**	**Value in HR Window (Row)**	**Value in Results Window (Column)**
Pause	0	0010			
Enter	0	0020	Level Down	0	0008
Arrow Left	0	0040	Total Body	1	0004
Race Mode	0	0080	Level Up	2	0004
Arrow Up	1	0010			
Arrow Right	1	0020			
Arrow Down	1	0040			
Goal WO	1	0080			
Reset	2	0010			
User Profiles	2	0020			
Settings	2	0040			

Exceptions:

a. If the Energy Saver key is stuck, no error message will result. The product will continue to function normally if the Energy Saver key is stuck. However, the product will not enter Energy Saver mode.

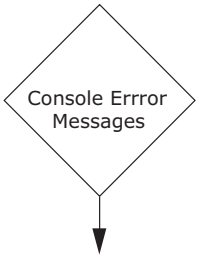
If two or more keys are stuck simultaneously, the value in the results window will show all columns logically or added together if the keys are on the same row. For example, if the RUN, START and STOP keys are all stuck, the value displayed would be 0070 (0010 + 0020 + 0040).

1. Try to work the stuck key free if it is located on the console. It may simply be hung up on the plastic shroud. You need to cycle power to clear the error and determine if the key is still stuck.
2. If this does work, replace the board that the stuck key is located on (console board keypad or activity zone membrane switch).
3. The problem may also be a loose or damaged cable between the keypads and the main console circuit board.

Treadmill Error Messages

The console can display eight main error codes that may occur if there is a malfunction on the treadmill. The error codes are:

- Elevation Direction Error
- OFF displayed in Incline Window *'an elevation error'*
- Over-Speed Error
- Run-Away Error
- Speed Stall
- Speed Range Error
- Stuck Key Error

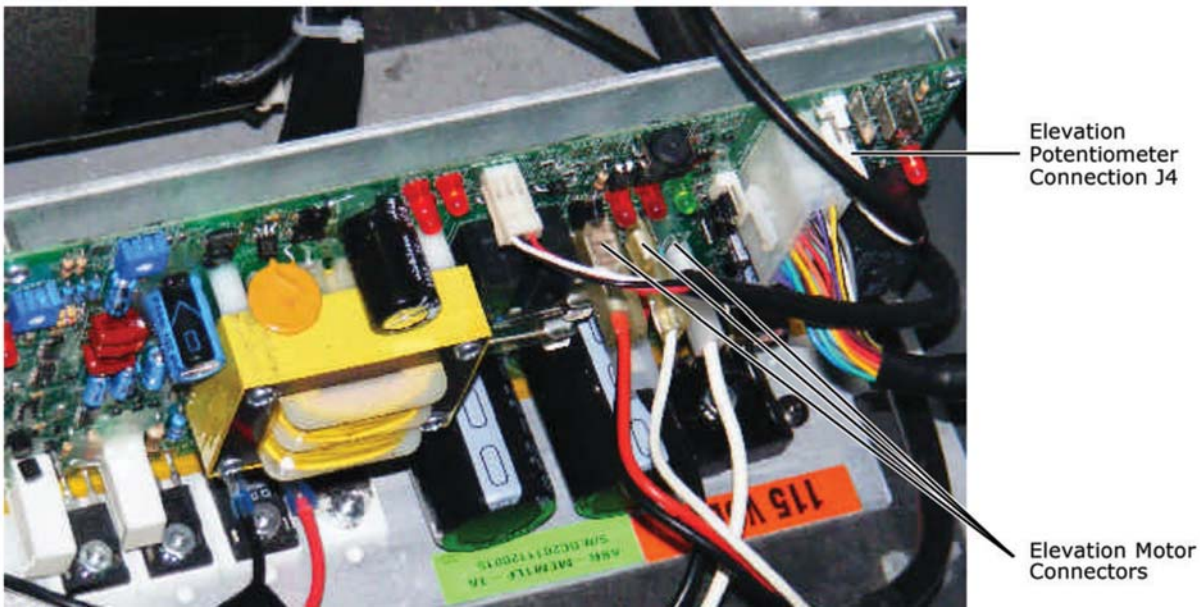


The first step to all error codes is to simply reset the power to the product to see if the error will repeat. If the error does repeat, please refer to the follow definitions and potential solutions to the problem the error is representing.

Elevation Direction Error
(1) This error is intended to detect if the elevation motor is moving in the opposite direction commanded by the console
(2) Error is set upon calibration after a replacement of the Motor Controller or elevation motor.
(3) Must cycle power to reset the error.

Probable Cause / Solution

1. The replaced elevation motor is incorrectly wired at either the J4 connection or the BLK/WHT/RED motor wires on the motor control board.
2. The BLK/RED elevation motor wires have been reversed on the motor control board.



OFF Displayed in Incline Window - Elevation Error

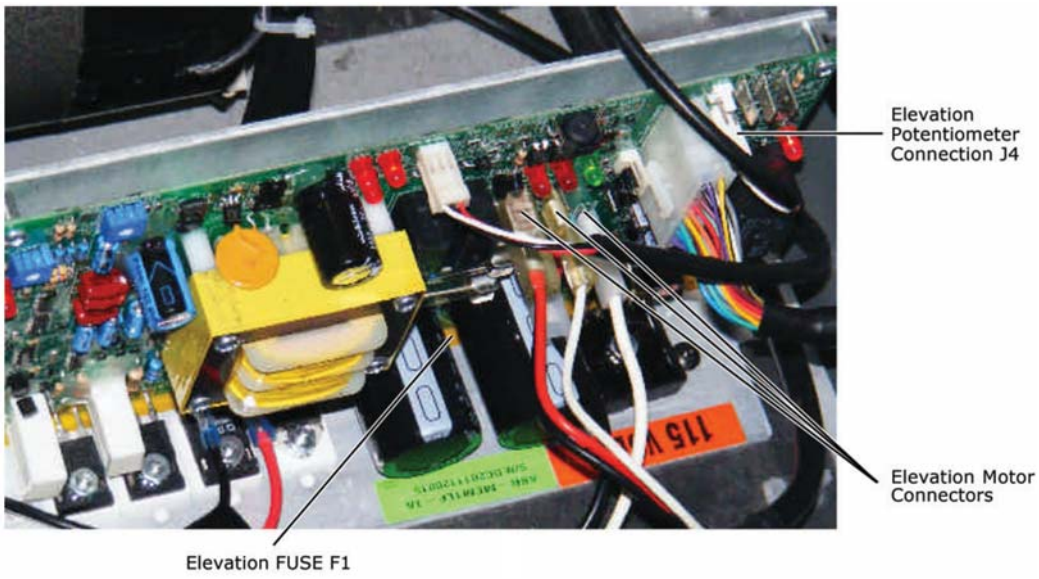
(1) This error is set if the elevation motor has been commanded to move but the position feedback signal is not showing movement. The error can occur if the incline motor is moving and the console does not receive a signal from the moving incline motor or if the incline motor is not moving at all.

(2) Power shall be turned off to the incline motor and the incline window shall display “OFF”. The treadmill shall continue to operate but no changes in incline shall be possible.

(3) Must cycle power to rest the error.

Probable Cause / Solution

1. Faulty or disconnected J4 located on the Motor Controller Board.
2. Fault Fuse F1 on motor control board= 1.4 amp Slow Blo.
3. Elevation Motor Connectors - Elva Comm, UP DN may have come disconnected.



4. Incline function has been used on the treadmill excessively and the actuator tripped its internal thermal protector. Allow product to cool and perform a power reset.
5. Follow the procedure below:

Determine which item from Definition (1) above is occurring:

1.) Enter DIAGNOSTICS and get to INCLINE MOTOR TEST.

2.) Press and hold the UP or DOWN incline key to move the actuator while watching the number in the incline window. The number in the incline window represents the value the console is receiving from the Potentiometer on the incline motor. The actuator will move as long as you hold the button or until it trips an internal limit switch.

If the actuator does *not move at all,* the problem could be one of the following in order of most to least likely:

1. Overhead actuator (actuator will be hot). Simply allow to cool.
2. Actuator motor is bad. Watch LED D10 (up) or D7 (down) on the Motor Control Board (MCB). If it goes on, you hear the relay click, but the actuator does not move when commanded by a key press, then either the actuator is bad or else it is not plugged in. Try test is both directions.
3. Cable is bad or unplugged. If D10 did not come on then a cable to the console is likely bad or not plugged in properly. Check cable continuity between the console and the MCB.
4. MCB is faulty.
5. Console board is faulty.

If the *actuator moves,* the problem is most likely:

1. Small cable from the actuator motor to the MCB is unplugged. The small cable carries the actuator potentiometer feedback signal. You will likely see a low value in the incline window during INCLINE MOTOR TEST and this value does not change when the motor moves.
2. Cable problem between the console and the MCB. You will likely see a low value in the incline window during INCLINE MOTOR TEST and this value does not change when the motor moves.
3. Bad potentiometer in the actuator motor. Could see any number in the incline window during INCLINE MOTOR TEST, but may not move consistently with the motor. Check the entire range of travel.
4. Console board is faulty.

Over-speed Error

(1) This error is intended to detect when the belt speed is abnormally high.

(2) Error is set when walking belt exceeds 12.3 mph for more than 1 second.

(3) Must cycle power to reset the error.

Probable Cause / Solution

1. Loss of calibration information-Recalibration is required.
2. Dirt has lodged in speed wheel windows. All speed wheel windows must be clean and free of obstruction so that the correct speed is relayed to the Motor Controller. Slowly rotate and inspect for dirt or obstructions.

Run-Away Error

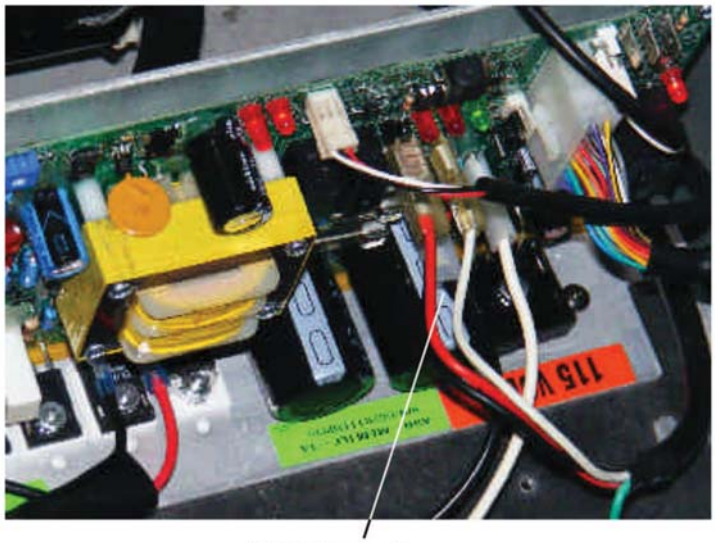
(1) this error is intended to stop a run-away belt or over acceleration condition.

(2) Error is set when treadmill speed increase exceeds commanded speed increase or speed increases more than 10% with no user speed adjustments.

(3) Must cycle power to reset the error.

Probable Cause

1. Shorted motor cables. The Black Motor wire has come in contact with the chassis ground.
2. Check the Black wire coming from the Circuit breaker on 120 volt units or the Filter Choke on 220 volt units.
3. IF there is any damage to this wire or it has come in electrical contact with the metal chassis, then this wire must be replaced.
4. Problem with the Motor.
5. Problem with the Motor Controller.



Speed Stall Error

(1) This error is intended to detect if the drive motor is stalled or the speed sensor signal is lost.

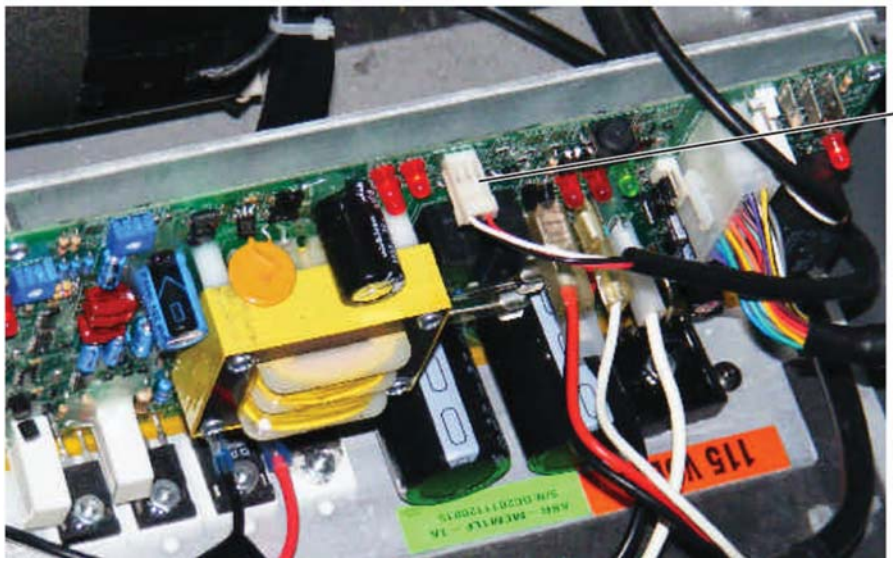
(2) Error is set when speed signal is lost for 13 seconds.

(3) Must cycle power to reset the error.

Speed Sensor on Main Drive Motor

Probable Cause / Solution

1. Cable from speed sensor mounted on the Main drive motor has become disconnected from J6 on the motor controller.
2. The speed detector located on the motor end cap may be damaged, requiring replacement.



Speed Sensor Connector J6

Speed Range Error

(1) This error is designed to catch a condition where the actual speed is higher than the target speed and cannot be adjusted down.

(2) If the actual speed is different than the target speed the console software shall adjust the PWM signal within set limits to compensate.

(3) Error is set when the PWM adjust value is at its lower limit and the actual speed is greater than the target speed. by 3 MPH or more for 3 seconds continuously.

(4) Must cycle power to reset the error.

Speed wheel windows

Probable Cause/Solution

1. Loss of calibration information - Recalibration is required.
2. Dirt has lodged in speed wheel windows. (All speed wheel windows must be clean and free of obstruction so that the correct speed is relayed to the Motor Controller). Slowly rotate and inspect for dirt or obstructions.

Stuck Key Error

(1) This error is designed to catch a key problem (key is stuck down) on the treadmill console and activity zone.

(2) IF the console detects a key is actuated for over 45 seconds, the error will display.

(3) The treadmill must be power cycled to clear this error.

Probable Cause / Solution

1. When stuck key error is displayed, the console automatically runs through a continual cycle to determine which keys are stuck. In the HEART RATE window, a value will cycle between 0 and 5. At the same time, a value will be shown in the RESULTS window. Note that when the value in the results window is no '0000' and also the corresponding value in the HEART RATE window. With this information, refer to the chart on the following page to determine if the problem is a key on the main console board or the activity zone.

Go Treadmill Console

Console Board			**Activity Zone Membrane Switch**		
Key	**Value in HR Window (Row)**	**Value in Results Window (Column)**	**Key**	**Value in HR Window (Row)**	**Value in Results Window (Column)**
Pause	0	0010	Walk	3	0010
Enter	0	0020	Speed Down	3	0020
Arrow Left	0	0040	Speed Up	3	0040
Race Mode	0	0080	Jog	3	0080
Arrow Up	1	0010	Run	4	0010
Arrow Right	1	0020	Start	4	0020
Arrow Down	1	0040	Stop	4	0040
Goal WO	1	0080	High Incline	4	0080
Reset	2	0010	Mid Incline	5	0010
User Profiles	2	0020	Incline Up	2	0020
Settings	2	0040	Incline Down	2	0040
			Low Incline	2	0080

Exceptions:

a. If the Energy Saver key is stuck, no error message will result. The product will continue to function normally if the Energy Saver key is stuck. However, the product will not enter Energy Saver Mode.

If two or more keys are stuck simultaneously, the value in the results window will show all columns logically or added together if the keys are on the same row. For example, if the RUN, START, and STOP keys are all stuck, the value displayed would be 0070 (0100 + 0020 + 0040).

1. Try to work the stuck key free if it is located on the consoles. It may simply be hung up on the plastic shroud. You need to cycle power to clear the error and determine if the key is still stuck.
2. If this does not work, replace the board that the stuck key is located on (console board keypad or activity zone membrane switch).

Settings Menu

UNITS:
Definition: Change the unit of measure for speed and distance.
Options: English or Metric

BEEPS:
Definition: This is used to control the beeper status.
Options: Beeps can be turned ON or OFF.

WIRELESS HEART RATE:
Definition: This is used to stop the console from recognizing a telemetry heart rate.
Options: WIRELESS HEART RATE can be turned OFF or ON.
Notes: Use this to help determine if a heart rate problem is contact or telemetry related. This feature works very well for determining if the environment is creating false heart rate signals that are then being displayed on the console.

Timer:
Definition: This controls if workout time counts up or down.
Options: Time can be turned UP or DOWN.

METS:
Definition: This is used to display METS.
Options: METS can be turned ON or OFF.

PACE (Treadmills Only):
Definition: This is used to control if PACE if displayed in the message center on the treadmills.
Options: PACE can be turned ON or OFF.

RPM (Bikes and Cross-Trainers Only):
Definition: This is used to display RPM on the bikes and cross-trainers.
Options: RPM can be turned ON or OFF.

CONTRAST:
Definition: Changes the contrast of the display
Options: Contrast range is 1-99.
Notes: Use contrast to help improve screen view ability for different height users.

BRIGHTNESS:
Definition: Changes the intensity of the blacklight LED's
Options: Brightness range is 1-10.

Safety Mode (Treadmill and Cross-Trainers Only):
Definition: On the Treadmill, Safety Mode has the treadmill enter a state where the Enter ey must be pressed prior to starting a workout. On the Cross-Trainers, Safety Mode increases the resistance of the brake to maximum after a workout is completed.
Options: Safety Mode can be turned ON or OFF.

STATISTICS:
Definition: This displays the total hours and accumulated distance on the treadmill.
Options: View total hours and accumulated distance.
Notes: STATISTICS will be reset if the console is ever reprogrammed. This is the only way STATISTICS can be reset. If hours or miles exceed 9999 a '-' will be displayed.

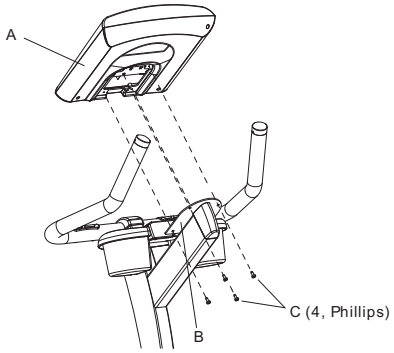
SOFTWARE VERSION:
Definition: This displays the software version and checksum on the first screen and if you press Enter, the second screen displays the software part number and software build date.
Options: None.

FLOOR MODEL:
Definition: This setting controls the “Energy Saver” feature.
Options: FLOOR MODEL can turn “Energy Saver” ON or OFF.
Notes: “Energy Saver” reduces the amount of energy the treadmill consumes when the product is not in use, but turned on.

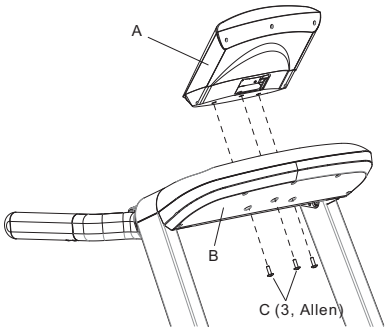
BELT LUBE TIMER (Treadmill Only):
Definition: This setting displays total hours the belt has moved since the last lubrication.
Options: Press and hold the down arrow key for 5 seconds to reset the timer.
Notes: The console will briefly display a message to the user when this timer reaches or exceeds 75 hours.

How To’s

How To...Replace Display Console
Tools Required: Phillips screwdriver (Bike / Cross-Trainer), 6mm Allen wrench (Treadmill)



Bike / Cross-trainer

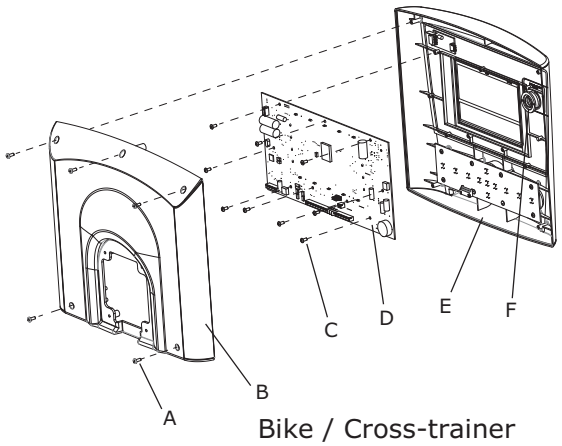


Treadmill

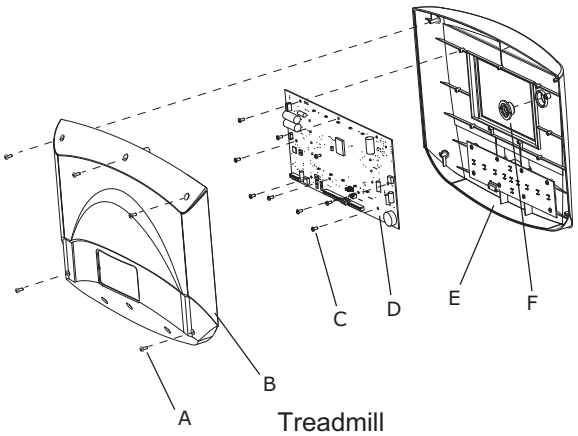
1. Remove *screws* (C) securing the *console* (A) to the *console support* (B).
2. Lift the *console* (A) enough to disconnect the wiring harness connectors.
3. Install new console in reverse order.
4. Run calibration if mounted to a treadmill - see pages 13-15.

Note: For consoles installed in metric system countries, enter DIAGNOSTICS and change UNITS OF MEASURE from ENGLISH to METRIC.

How To...Replace the Programmed Console Board
Tools Required: Phillips Screwdriver



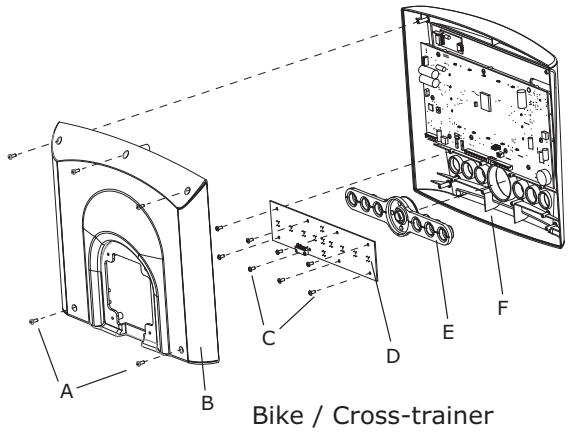
Bike / Cross-trainer



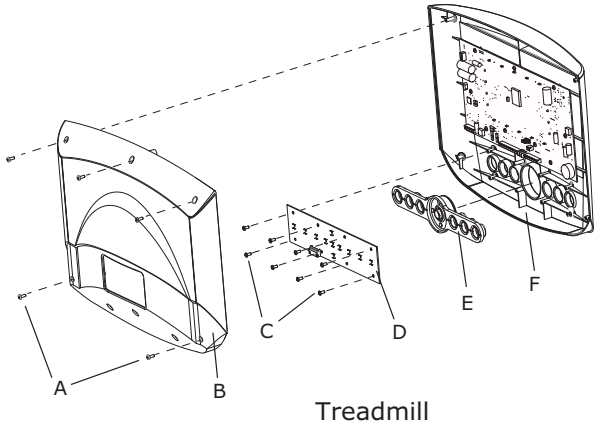
Treadmill

1. Remove Display Console as described in *How to Replace Display Console.*
2. Remove five *Phillips screws* (A) and remove the *back cover* (B).
3. Disconnect all cables connected to the *programmed console board* (D).
4. Remove nine *Phillips screws* (C) that secure the *console board* (D) to the *bezel* (E).
5. Lift the *console board* (D) from the *bezel* (E).
6. Replace *On/Off switch* (F) if necessary.
7. Install new *programmed console board* in reverse order.
8. Run calibration if mounted to a treadmill - see pages 13-15.

How To...Replace the Button Board



Bike / Cross-trainer



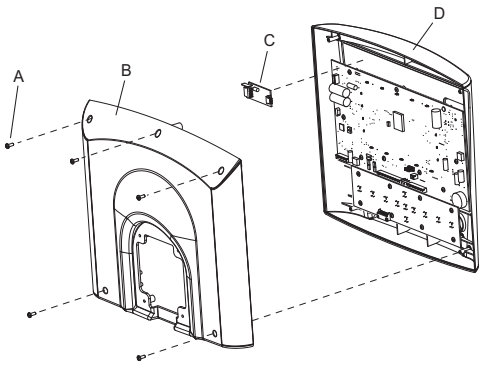
Treadmill

Tools Required: Phillips Screwdriver

1. Remove Display Console as described in *How To...Replace Display Console.*
2. Remove five *Phillips screws* (A) and remove the *back cover* (B).
3. Disconnect cable connected to the *button board* (D).
4. Remove eight *Phillips screws* (C) that secure the *button board* (D) to the *bezel* (E).
5. Lift *console board* (D) from the *bezel* (F).
6. Replace *button* (E) if necessary.
7. Install new *button board* in reverse order.

How To...Replace the HR Board (Bikes / Cross-Trainers)
Note: For E3 and E5, the HR Board is in the Activity Zone. Refer to the base service manual. On Treadmills, the HR Board is located in the Handlebar Assembly. Refer to the Treadmill Service Manual.
Tools Required: Phillips Screwdriver

1. Remove Display Console as described in *How To...Replace Display Console.*
2. Remove five *Phillips screws* (A) and remove the *back cover* (B).
3. Disconnect cable connected to the *HR board* (C).



The *HR board* (C) is held to the *bezel* (D) with tape.

Important: Before proceeding, note the position and orientation of the HR board. When replacing, it is very important to install the new HR board with the same orientation in the same location.

4. The HR board is held to the *bezel* (D) with tape. Lift the *HR board* (C) from the *bezel* (D).
5. Thoroughly clean the surface on the bezel.
6. Replacement HR board comes with the tape adhesive. Remove backing from tape and install new *HR board* (C) in the same orientation and locations as before.