



LED CONSOLES DIAGNOSTICS TECHNICAL CERTIFICATION TRAINING

Field Engineering | 2010

Life Fitness
WHAT WE LIVE FOR

Course Objectives

- » Introduction
- » Entering Diagnostics:
 - ♦ Treadmills (an example)
 - ♦ Non-treadmills (an example)
- » Examples of Product Specific Diagnostic States
- » Summary

Introduction

- » A lot of code reused if the design was based on the previous one.
- » Code reuse:
knowing one product's diagnostics often means knowledge of the derived consoles diagnostic states.
- » For example, in terms of software similarities:
 $97Ti = 95Ti = T9i$

Introduction (cont.)

- » The purpose of this presentation: **highlight** treadmill's diagnostics functionality.
- » Service Manuals describe how to use the other diagnostics of other products.
- » More details in the LCD diagnostic presentation.
- » LCD diagnostics were derived off of the respective LED product's diagnostic states.
- » There is a lot of similarities between the LED and LCD diagnostic states.

Entering Diagnostics: Treadmills (an example)

- » To enter diagnostics press a combination of keys.
- » 97Ti: three methods to enter diagnostics.
 - ◆ **Hold down** the **PAUSE** Key and while holding it down press the **STOP Button** until SERVICE MENU is displayed on the message center
 - ◆ **Hold down** the **PAUSE** Key and while holding it down press the **CLEAR** Key until SERVICE MENU is displayed on the message center
 - ◆ **Hold down** the **PAUSE** Key when power is applied

Entering Diagnostics: Non-Treadmills (an example)

- » On the 9500 bike the following method will work:
 - ♦ **Hold down** the **5** Key (numeric keypad) and while holding it down press the **CLEAR** Key twice until SOFTWARE VERSION is displayed on the message center.

NOTE:

The above methods used to enter diagnostics are for the purpose of illustration purposes. See a specific service manual for the specific methods needed to enter diagnostics on a product of interest.

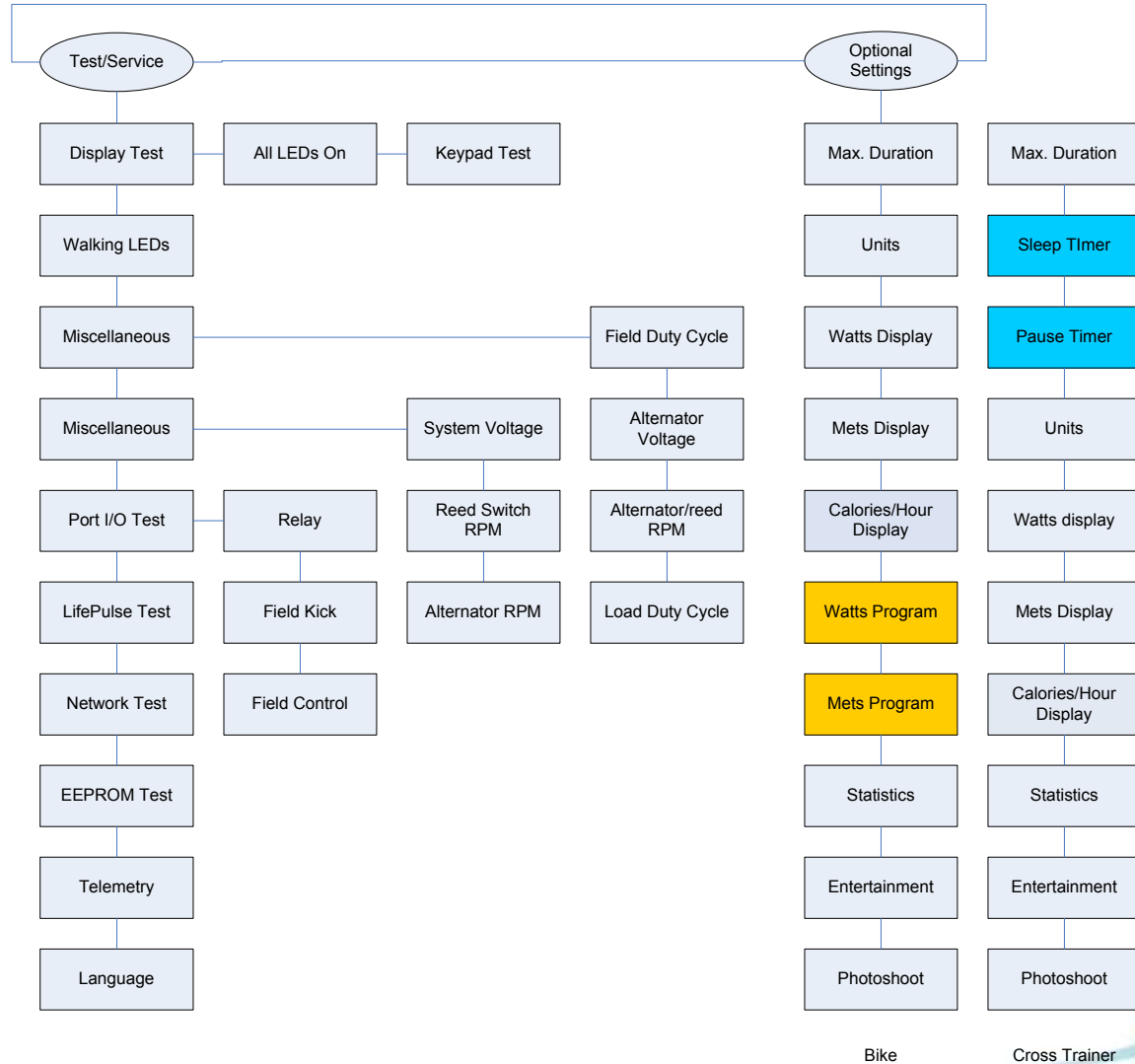
Examples of Product-specific Diagnostic States

- » The following slides show diagnostic layout that you will find in the service manuals.
- » Although the diagnostics map seems to be big in size it is easily manageable –service manuals contain detailed descriptions of diagnostics.

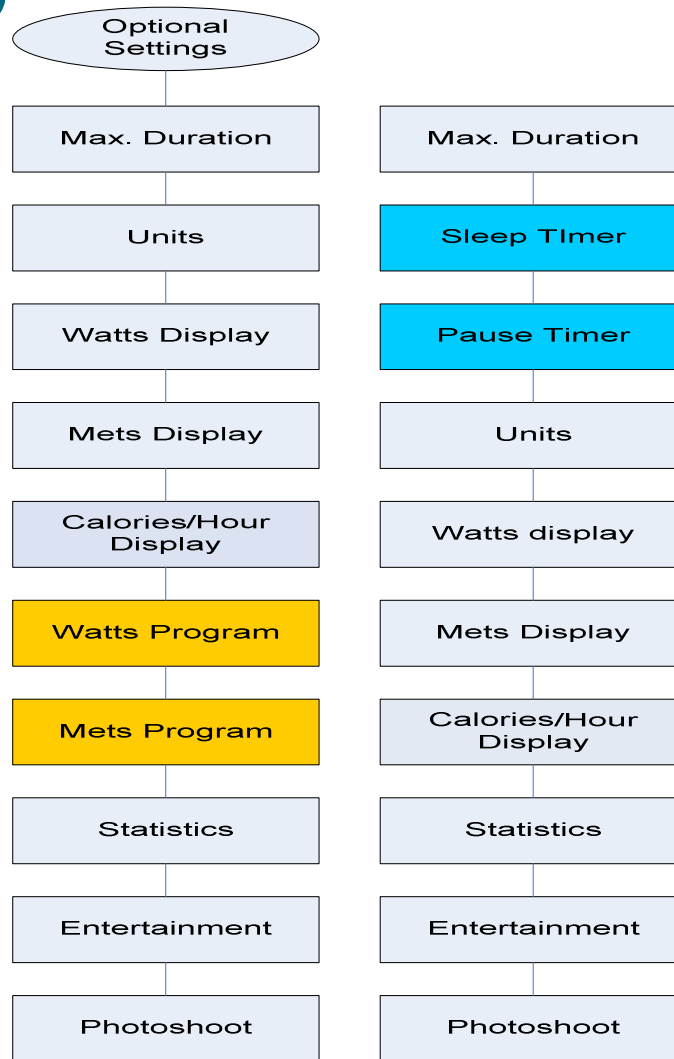
Non-treadmill Diagnostic States

- » The cross trainer's and the bike's diagnostic states are very similar.
- » Both products use the same resistance controller
- » The below slides show diagnostic states similarities between a bike and a cross trainer

Non-treadmill Diagnostic States (an example of all diagnostic states)



Non-treadmill Diagnostic States (an example of optional settings diagnostic states)



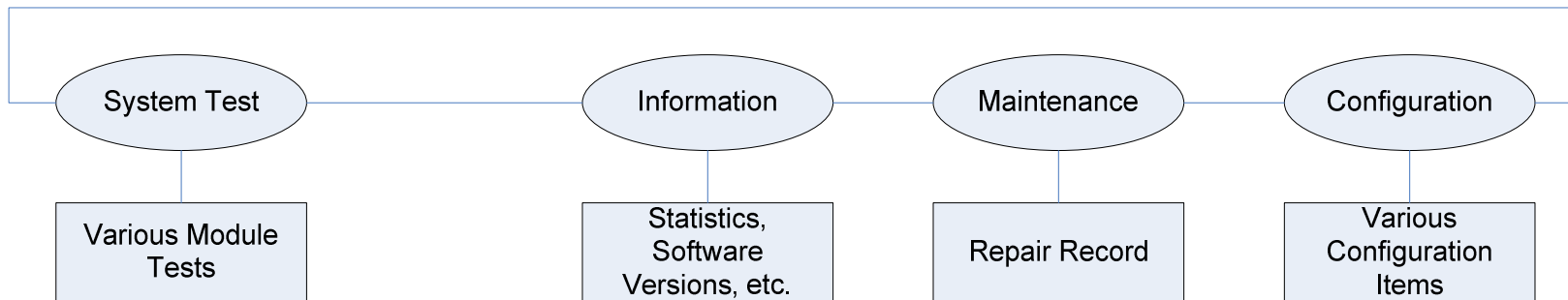
----- Bike -----

----- Cross Trainer -----

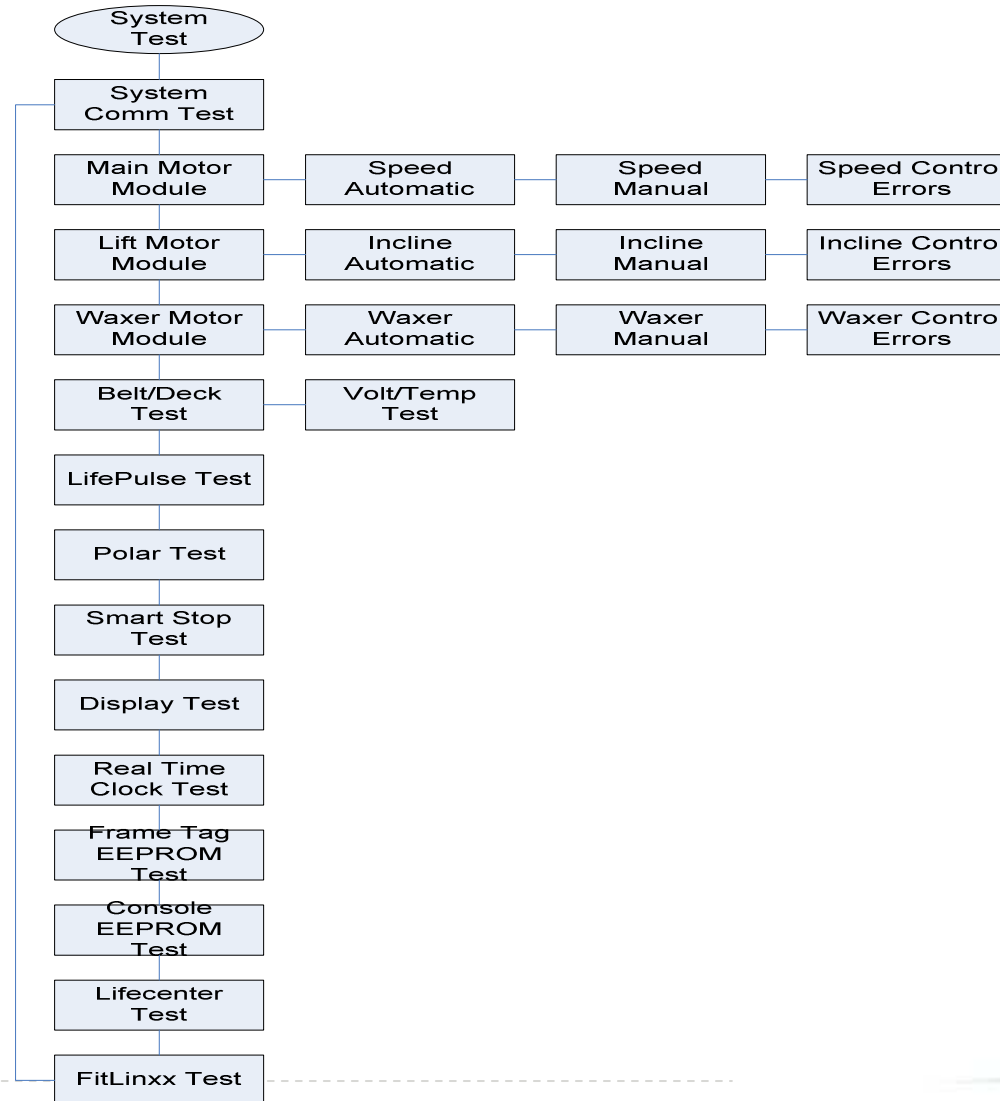
Non-treadmill Diagnostic States – a Summary

- » The difference between bikes' and cross trainers' diagnostic states is very small.
- » Learning one set of diagnostic -> understanding remaining non-treadmills diagnostic states that use the same resistance controller.

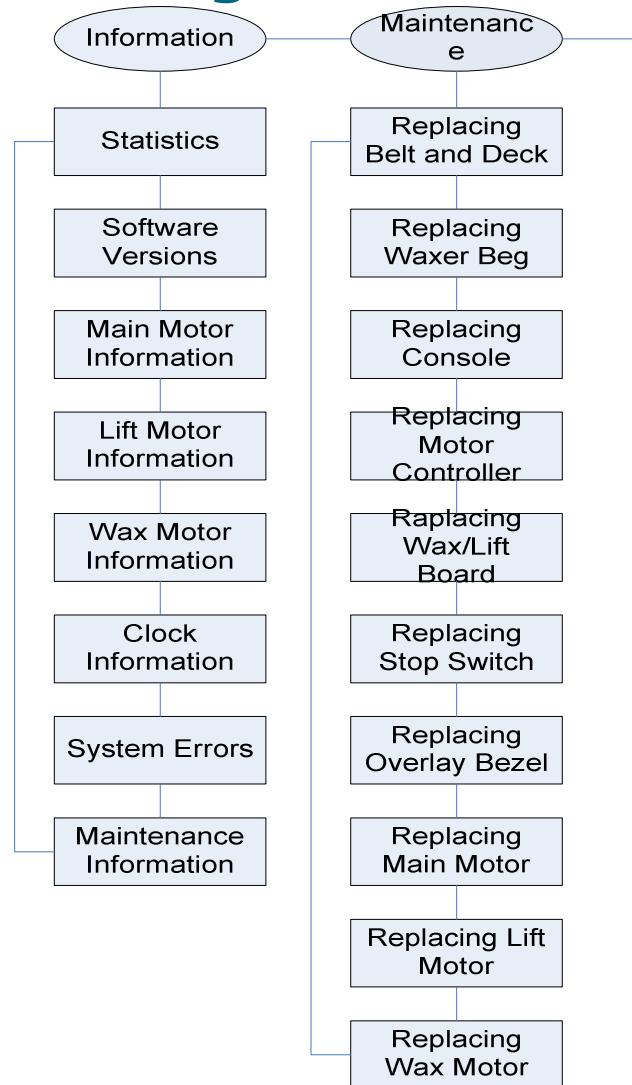
Treadmill Diagnostic States (an example of all diagnostic states in 3 parts)



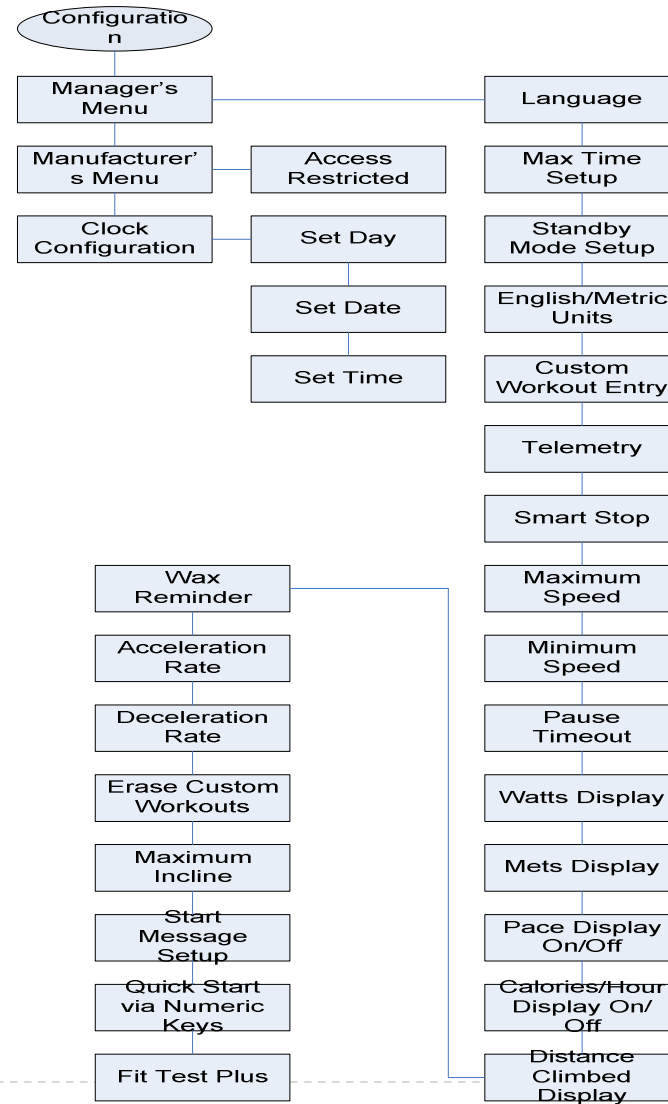
Treadmill Diagnostic States (Part 1 of 3)



Treadmill Diagnostic States (Part 2 of 3)



Treadmill Diagnostic States (Part 3 of 3)



Treadmill Diagnostic States – a Summary

- » Extensive reuse of software -> the difference between various treadmill diagnostic states is very small
- » Learning one set of diagnostic states -> understanding remaining treadmills' diagnostic states

Summary

- » In this presentation we had discussed the following subjects:
 - ◆ Diagnostics in general: purpose, getting in, navigating
 - ◆ Diagnostics are supposed to be used from the system's point of view
 - ◆ Common diagnostic states that exist in majority of Life Fitness products
 - ◆ Product specific diagnostic states that can be used in troubleshooting of the specific functionality

Questions





THANK YOU!

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