Name: _____
Date: ___/___/___
Company: _____
Your Coverage Area: _____
Job Title: _____

Icon Fitness Repairs 2003 Final Test

1) After calibrating high speed in calibration mode. How do you stop the belt from moving?

a) Remove the safety key
b) Press Stop
c) Press *Speed* up
d) Press *Incline* down

2) What is the connector labeled on the power board for the speed control wires, that connect the power board to the controller.

a) Incline Sense
b) Reed Snsr
c) HWL
d) Earth Gnd

3) What two buttons are typically pressed while inserting the safety key to enter the calibration mode of a treadmill console?

a) *Speed* up and *Incline*
b) *Speed* up and *Stop*
c) *Speed* down and *Incline* down
d) *Speed* up and *Incline* up

4) What are the two types of motor controller?

a) PWM and SST
b) SST and PRT
c) PRT and SCR
d) PWM and SCR

5) How many troubleshooting LED's does the MC-60 motor controller have?

a) Three
b) Four
c) Five
d) Six

6) Why is a choke wired between the motor and motor controller

a) To reduce the amount of ripple voltage
b) To limit the maximum speed the motor can run
c) To convert the voltage to the motor from AC volts to DC volts
d) To provide DC voltage to the motor controller LED's

7) Which of the following components is **not** included in a High Voltage Console Treadmill?

a) Reed Switch
b) Choke
c) DC Motor
d) Power Board

8) On a High Voltage Console Treadmill, what component controls AC voltage to the motor controller?

a) Reed Switch
b) An on/off switch where the power cord enters the treadmill
c) A microswitch in the console where the safety key is inserted
d) The Power Board

9) What component inside the drive motor are the two BLUE wires attached to?

a) Circuit Breaker
b) Reed Switch wire
c) Thermal Switch
d) Speed Potentiometer

10) On aerobic products using generator resistance, when will the most resistance be felt by the user?

a) When all relays to the windings are open
b) When a single relay to the windings is closed
c) When all the relays to the windings are closed
d) When half of the relays to the windings are closed

11) What is the input voltage at AC1 (L1) and AC2 (L2) on any motor controller?

a) 10–12 VAC
b) 10–12 VDC
c) 110–120 VDC
d) 110–120 VAC

12) On the PB-20i power board, the “TACH” LED monitors the tach signal coming from the speed sensor. What is the voltage this LED is monitoring?

a) 12 VDC from the controller
b) Pulsating 0, 5VDC coming from speed sensor.
c) 5 VDC from the power board
d) 9VDC from the console

13) What is the proper location to place the meter when measuring the DC amp draw of a treadmill?

a) In series between the BLACK and WHITE power cord wires
b) In series between either the BLACK motor wire and the BLACK choke wire (or A- terminal on the motor controller), or the RED motor wire and the A+ terminal after disconnecting the wire from the controller or choke
c) In series between the BLUE motor wire and the AC1 terminal on the motor controller after disconnecting the wire from the controller
d) In series between the BLUE and BLACK wires in the console wire harness

14) On treadmills with a maximum speed of 10.0 MPH and using a front roller sleeve, what is the correct range for the DC amperage?

a) 1.5–2.5 amps DC
b) 2.5–3.5 amps DC
c) 3.5–4.5 amps DC
d) 4.5–5.5 amps DC

15) Which of the following components will only be found on Low Voltage Console Treadmills?

a) Speed and Incline Optic Switches and Power boards
b) Reed Switch Wire
c) SCR Motor Controllers
d) Motor Choke

16) What signal does the BLUE wire carry in the console wire harness on Low Voltage Console Treadmills?

a) Incline Sensor Signal
b) 8–12 VDC supply voltage to the console
c) Speed Sensor Signal to the console
d) Speed Control Signal from the console (PWM)

17) What voltage does the incline motor operate on?

a) 110–120 VAC
b) 110–120 VDC
c) 8–12 VAC
d) 8–12 VDC

18) With the exception of the TV treadmill, what level of Calibration Mode is used to calibrate the speed and incline of the treadmill?

a) Level 1
b) Level 2
c) Level 3
d) Level 4

19) When should the speed and incline of the treadmill be calibrated?

a) Anytime a major component of the treadmill has been replaced.
b) Only when replacing the drive motor.
c) Only when replacing the motor controller.
d) Only when replacing the console.

20) If the error code *E2* or E21 appears in the console display, what type of error is being indicated?

a) The console is not receiving an incline signal when expected
b) The treadmill is running faster than its designed speed
c) The console is not receiving a speed signal when expected
d) The console is not receiving a pulse signal when it expected

21) If the error code *E6* appears, then reappears when the console is reset, what treadmill component needs to be replaced?

a) The console
b) The motor controller
c) The power board
d) the lift motor

22) On ellipticals with power incline, what input voltage is required?

a) 120 VAC
b) 12 VDC wall transformer
c) 4 ‘D’ cell batteries
d) Voltage is supplied by an internal generator as the user exercises

23) In the alternate screen of calbration mode level 5 on a treadmill using the MC-2100, the Speed display shows ‘6.’ What does this number indicate?

a) There is currently a 6 amp load on the treadmill
b) 6 VDC are currently being sent to the drive motor
c) The controller buss is charged and voltage is being sent to the drive motor
d) The MAX SPD potentiometer on the motor controller is in the ‘6’ position (1-100 possible)

24) On treadmills with I-Fit, can regular CD’s be played while the user is exercising?

a) No, only the custom CD’s
b) Yes, and they will control the treadmill’s speed and incline settings.
c) Yes, but the treadmill speed and incline will need to be set by the user.
d) Yes, but only if the treadmill is not running.

25) MC 70 motor controllers can be configured to use a two wire speed control signal. What is the connection labeled that should be jumpered?

a) TEST b) JP 2 c) TWO WIRE d) JP 1