L-80 SERIES HOME & COMMERCIAL HIGH-TECH ENTERTAINMENT CENTER DIAGNOSTIC ADDENDUM
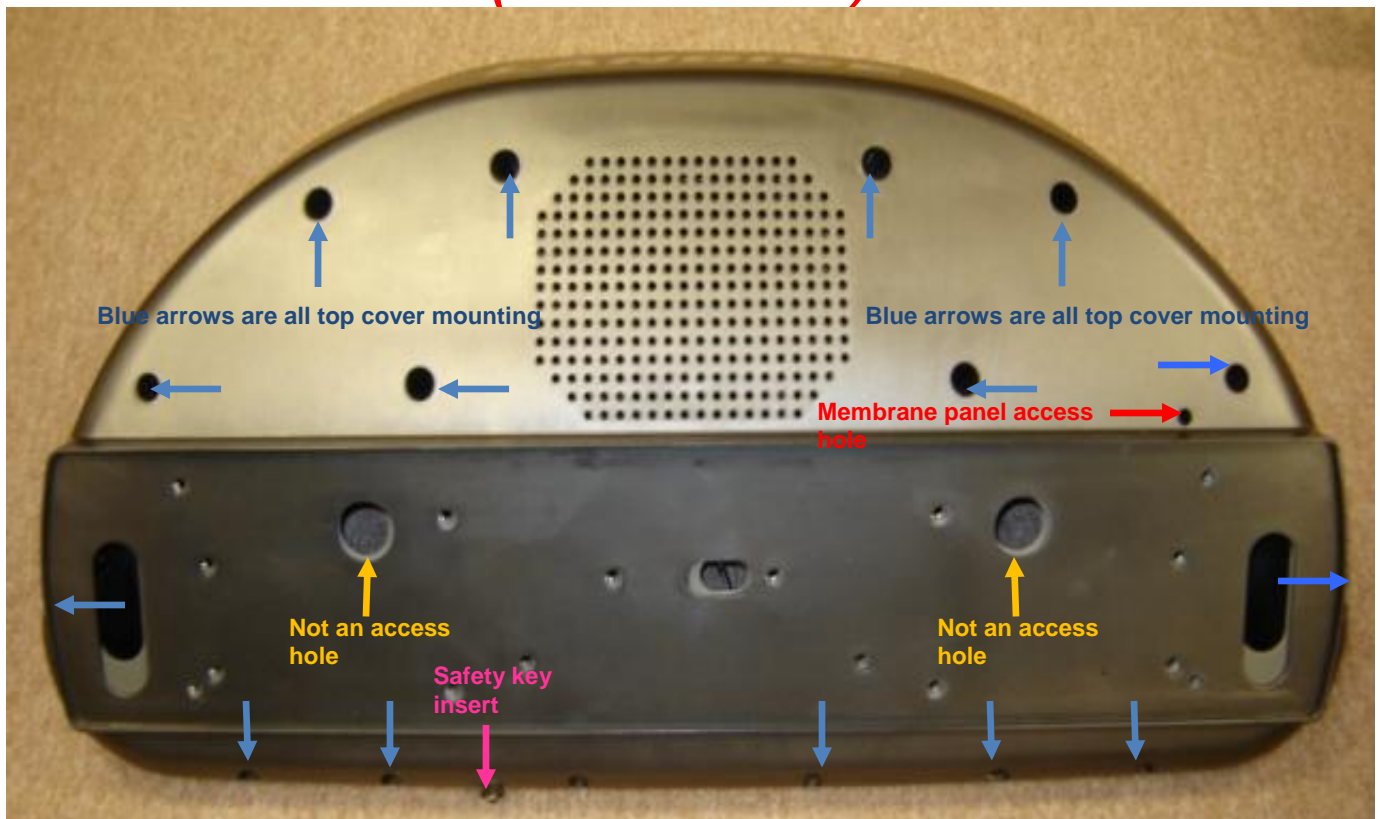
High-Tech Entertainment Center Explosion Part List

Item Number	Description	Part #
1	Top	91119
2	Bottom	91118
3	Relay Board	91116
4	Amplifier	91107
5	Board screws	Misc
6	Speakers	91105
7	Pod Grip	70543
8	Plug 1 inch snap	91117
9	Fan	91120
10	Fan Vent	91131
11	Enclosure Screws	M3X10_PPHTS
12	Speaker Enclosure, Right	91129
	Speaker Enclosure, Left	91130
13	Fan Vent Screws	M3X15_PPHTS
14	Bezel, Speaker, Right	91103
	Bezel, Speaker, Left	91104
15	Diverter Assembly (Fan)	70828
16	Velcro Strip 26 ¼ x3/16	70095L
17	Membrane Channel Support, Top	91102
18	Channel Support & board screw	M3x9_PPHTS
19	Membrane Channel Support, Top	91101
20	Screws	M4X10_PPHTS
21	Plate Hex Head Bolt	M8X20_HHB
22	Plate	91132
23	Washer	5/16_FW_BK
24	Flux guide (Treadmill Only)	70821
25	Magnetic Stud (Treadmill Only)	70716
26	Safety Key (Treadmill Only)	71011-NEW

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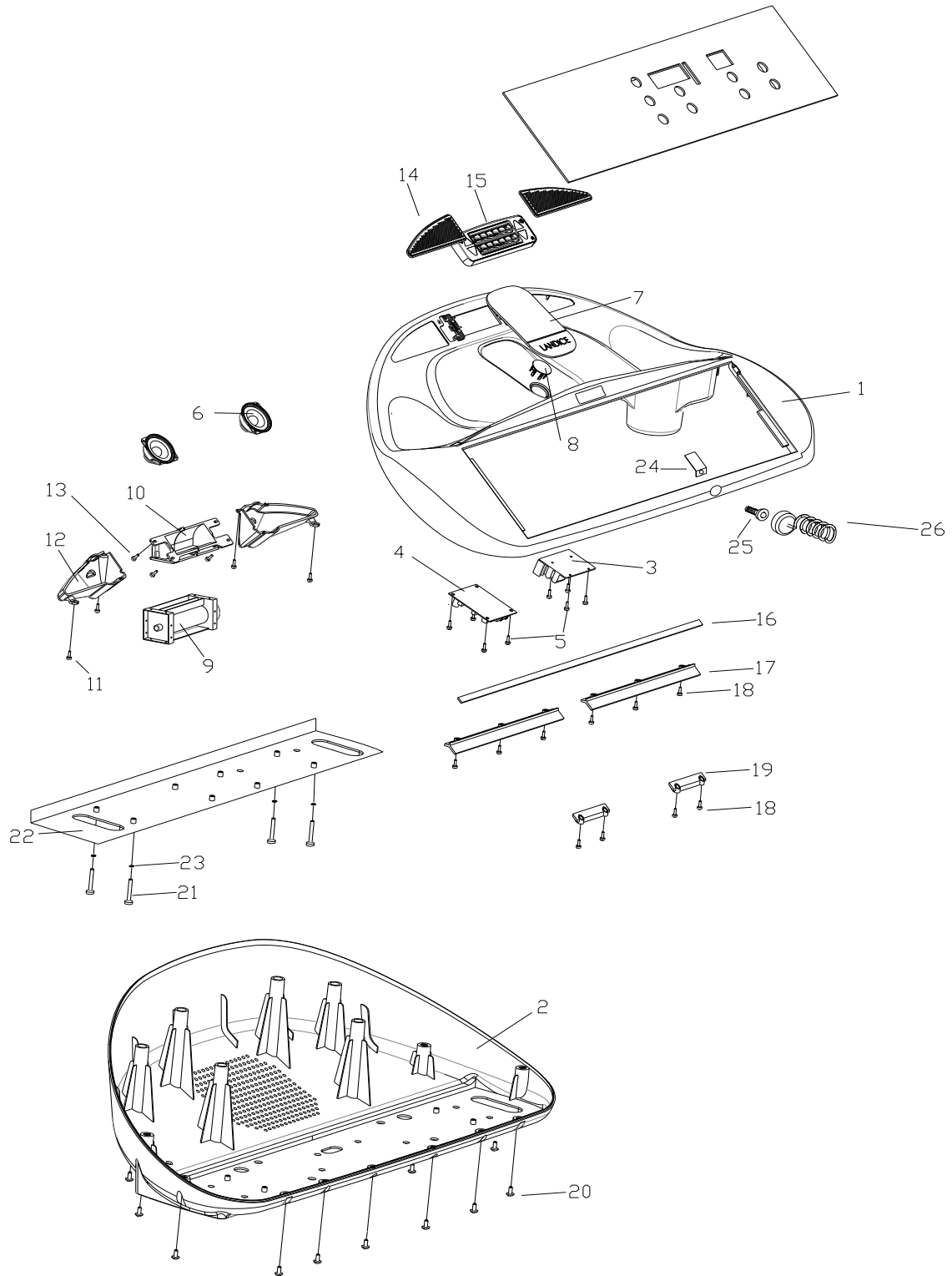
HTEC DISASSEMBLING INSTRUCTIONS (TREADMILLS)

Blue arrows are all top cover mounting

Blue arrows are all top cover mounting

Membrane panel access hole

Not an access hole

Not an access hole

Safety key insert

ALL BLUE ARROWS ARE FOR THE TOP COVER MOUNTING SCREWS.

ALL OF THE ORANGE ARROWS ARE NOT ACCESS HOLES TO REMOVE THE MEMBRANE PANEL.

RED ARROW IS THE ACCESS HOLE TO REMOVE THE MEMBRANE PANEL.

PINK ARROW INDICATES WHERE THE SAFETY LANYARD ATTACHES TO THE HTEC ASSEMBLY.

STEP #1

A	B	C

Not an access hole

1)   Using a long push rod or a Phillips screwdriver insert it through the access hole on the back of the HTEC Assembly as indicated in (**Illustration A**).

2)   While pushing through the HTEC Assembly, grab the panel, and remove it completely from the HTEC Assembly as indicated in (**Illustration B**).

3)   Do not use any of the two access holes located underneath the control panel to remove the console from the HTEC Assembly as shown on (**Illustration C**).
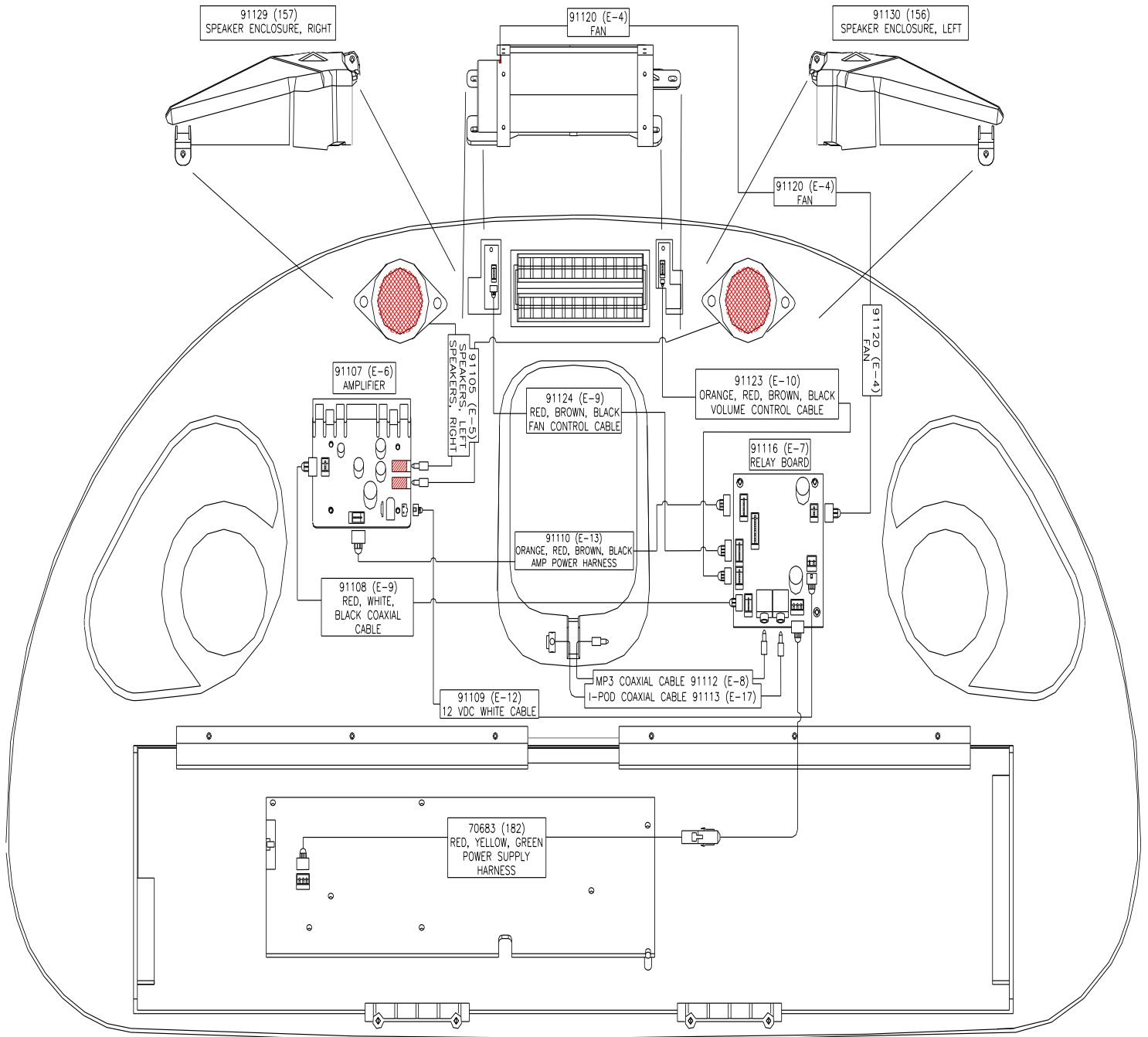
STEP #2

1)   Using a long Phillips screwdriver loosen and remove all of the top cover mounting screws.

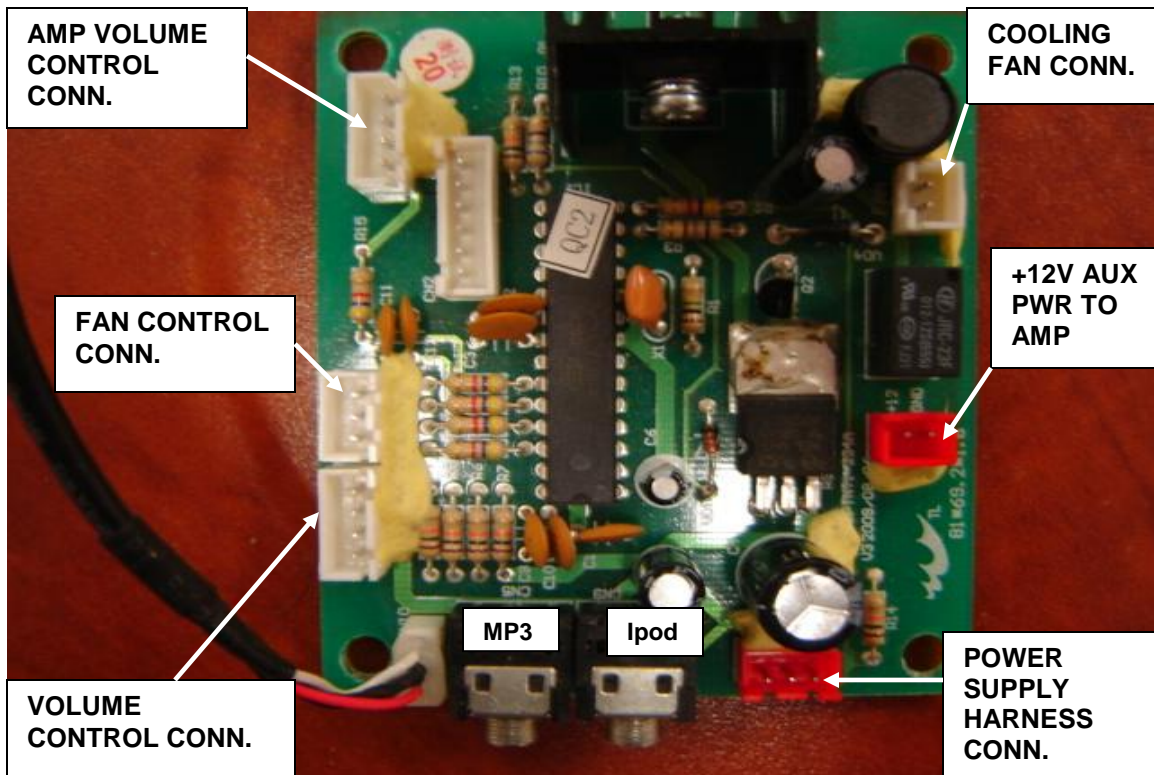2)   Once all of the screws are removed go ahead and separate the top cover from the HTEC Assembly.

(**All of the screws are shown in blue arrows on the main page.**)

High-Tech Entertainment Center / Wiring Diagram

91129 (157)
SPEAKER ENCLOSURE, RIGHT

91120 (E-4)
FAN

91130 (156)
SPEAKER ENCLOSURE, LEFT

91120 (E-4)
FAN

91120 (E-4)
FAN

91105 (E-5)
SPEAKERS, LEFT
SPEAKERS, RIGHT

91107 (E-6)
AMPLIFIER

91123 (E-10)
ORANGE, RED, BROWN, BLACK
VOLUME CONTROL CABLE

91124 (E-9)
RED, BROWN, BLACK
FAN CONTROL CABLE

91116 (E-7)
RELAY BOARD

91110 (E-13)
ORANGE, RED, BROWN, BLACK
AMP POWER HARNESS

91108 (E-9)
RED, WHITE,
BLACK COAXIAL
CABLE

MP3 COAXIAL CABLE 91112 (E-8)
I-POD COAXIAL CABLE 91113 (E-17)

91109 (E-12)
12 VDC WHITE CABLE

70683 (182)
RED, YELLOW, GREEN
POWER SUPPLY
HARNESS

INNER POD WIRING DIAGRAM

HIGH TECH ENTERTAINMENT CENTER RELAY BOARD CONFIGURATION.

AMP VOLUME CONTROL CONN.

COOLING FAN CONN.

FAN CONTROL CONN.

+12V AUX PWR TO AMP

VOLUME CONTROL CONN.

MP3

Ipod

POWER SUPPLY HARNESS CONN.

<u>+12V AUX PWR to Amp:</u> Sends +12Vdc thru the white & white/blue(dashed) wires to power up the amplifier.

<u>Amp Volume Control Connection:</u> The volume control harness plugs into this board to increase or decrease volume from the speakers.

<u>Cooling Fan Connection:</u> Cooling fan plugs into this 2-pin connection to control the speed of the fan. Outputs a variable voltage for fan speed control.

<u>Fan Control Connection:</u> Receive's a signal from the fan control board to increases or decreases voltage in the relay board for the output voltage for the fan speed.
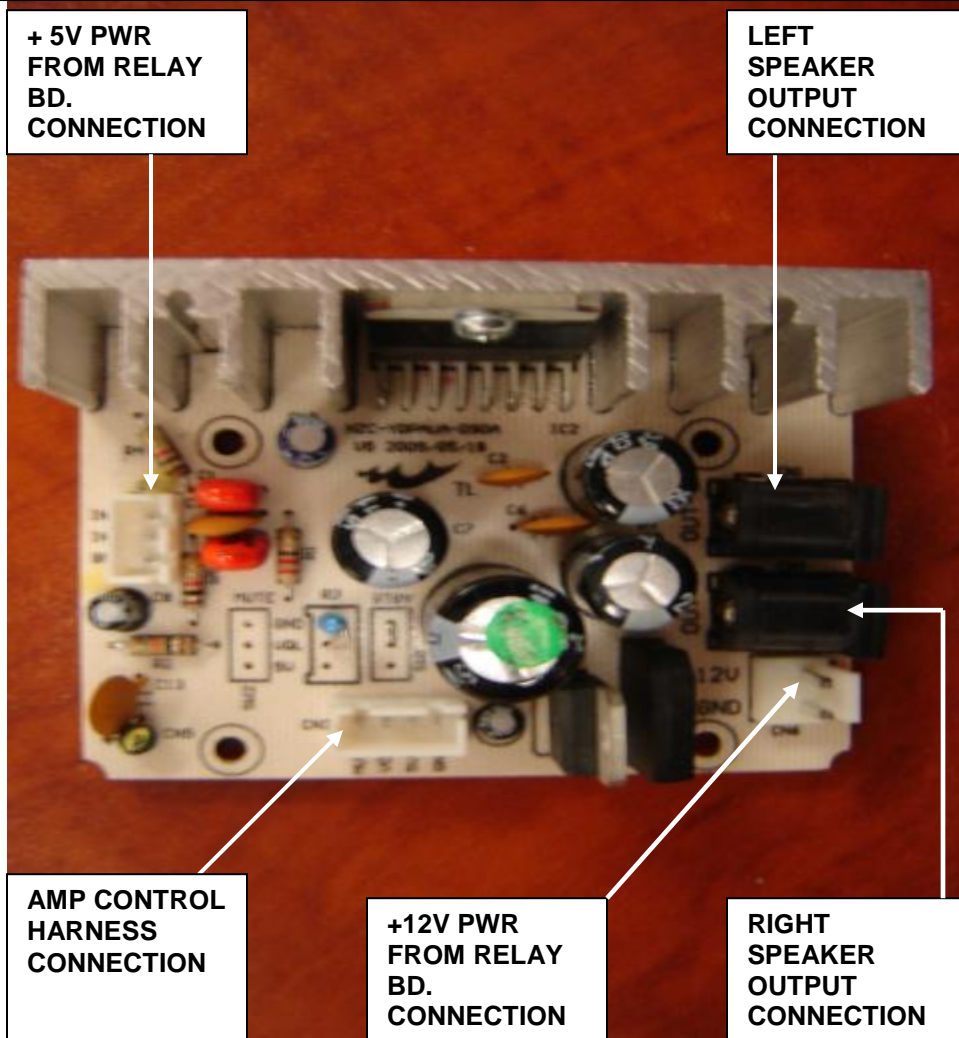
<u>Ipod Connection:</u> This connection allows you to use your Ipod® by connecting the Ipod® harness.

<u>MP3 Connection:</u> This connection allows you to connect your MP3 player to allow sound thru the speakers.

<u>Power Supply Harness Connection:</u> +12 & +5Vdc travels thru this harness from the upper board to power up the relay board and amp.

HIGH TECH ENTERTAINMENT CENTER AMP. CONFIGURATION.

+ 5V PWR FROM RELAY BD. CONNECTION

LEFT SPEAKER OUTPUT CONNECTION

AMP CONTROL HARNESS CONNECTION

+12V PWR FROM RELAY BD. CONNECTION

RIGHT SPEAKER OUTPUT CONNECTION

+5V PWR from Relay Bd: +5Vdc is supplied from the relay board thru the red, black and white wires to power the volume control circuit on the amp.

+12V PWR from Relay Bd: +12Vdc is supplied from the relay board thru the white and white/blue (dashed) wires to power up the amplifier board.

LEFT speaker output: Sends a signal out of the jack to allow the speakers to emit sound from your Ipod or MP3 player.

RIGHT speaker output: Sends a signal out of the jack to allow the speaker to emit sound from your Ipod or MP3 player.

Volume Control Harness: Sends voltage into the relay board for the volume control.

HIGH-TECH ENTERTAINMENT CENTER VOLTAGE TABLE

PRT#70683 (182) / AUX PWR TO		PRT#91108 (E-9) / RELAY BD TO AMP	
RED Wire	12 VDC	**RED** Wire	12 VDC
WHITE Wire	5 VDC	WHITE Wire	5 VDC
BLK Wire	COMMON	**BLK** Wire	COMMON

PRT#91109 (E-12) / RELAY BD. TO AMPLIFIER		PRT#91110 (E-13) / RELAY BOARD TO AMPLIFIER.	
WHITE WIRE	12 VDC	**RED** Wire	5 VDC
		BLK Wire	5 VDC
WHT/BL WIRE	GND	**BRN** Wire	COMMON
		ORG Wire	?

PRT#91123 (E-10) / VOL CNTRL TO RELAY BD.		PRT#91124 (E-11) / FAN CNTRL TO RELAY BD.	
RED Wire	? VDC	**RED** Wire	? VDC
BLK Wire	? VDC	**BLK** Wire	? VDC
BRN Wire	? VDC	**BRN** Wire	? VDC
ORG Wire	? VDC	**ORG** Wire	? VDC

| FAN VOLTAGE OUTPUT TABLE	
LEVEL 1 (SLOW)	7.0 – 7.5 VDC
LEVEL 2 (MEDIUM)	9.75 VDC
LEVEL 3 (FAST)	10 – 11 VDC

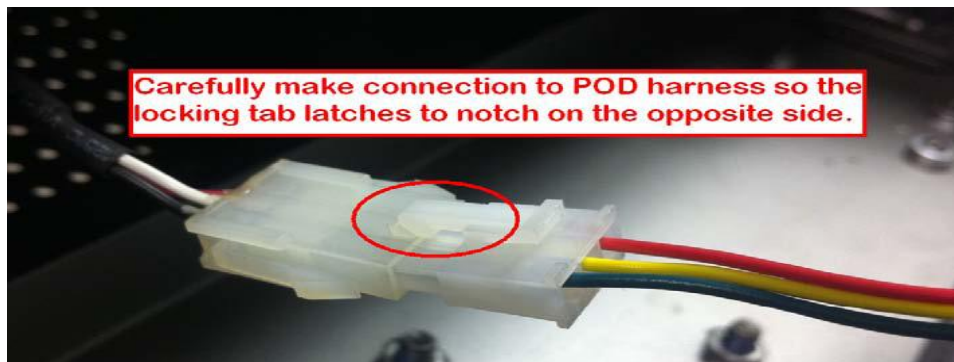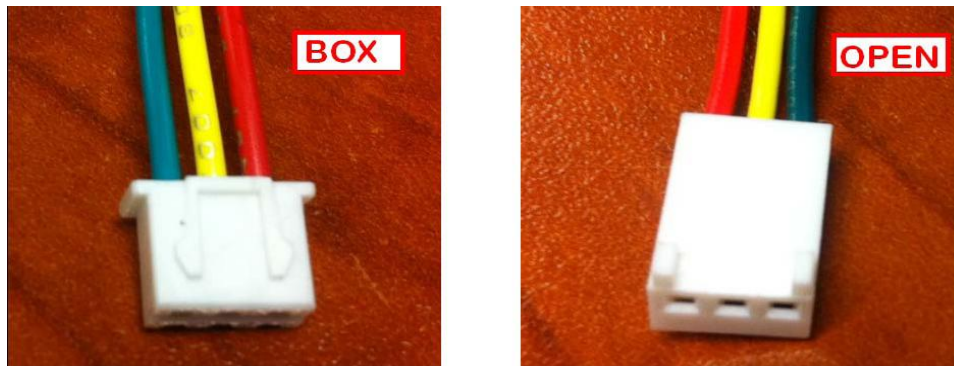| VOLUME VOLTAGE OUTPUT TABLE (ACROSS RED & BLK WIRES FROM 91110	
OFF	0 VDC
SLOW (1ST CLICK)	1.5 VDC
LOW / MEDIUM (2ND CLICK)	2.0 VDC
MEDIUM (3RD CLICK)	3.0 VDC
MEDIUM / HIGH (4TH CLICK)	4.0 VDC
HIGH (5TH CLICK)	5.0 VDC

E7 Fan/Speaker Not Working – OUT OF BOX

1. Identify Connector. On the back of the upper display, you will find an available white 3-pin connector. There are two possible connector types: Box and Open.
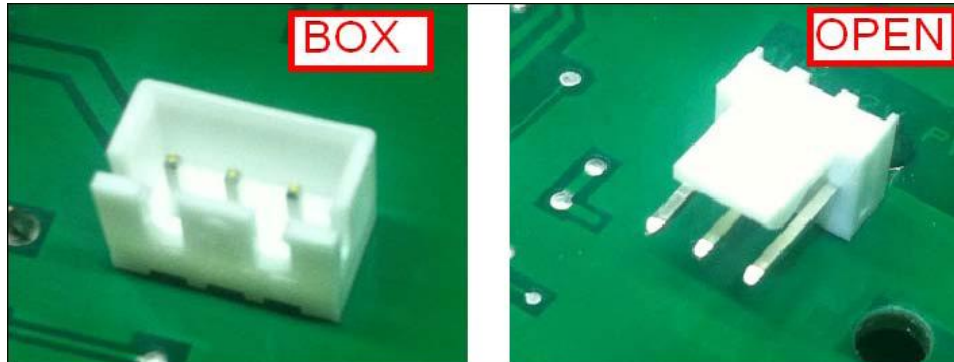
2. Using the correctly specified harness (70683-Box or 70683-Open) connect the upper board to the available 3-pin Molex connector hanging down from the inside of the POD.

Carefully make connection to POD harness so the locking tab latches to notch on the opposite side.

Make sure you are using the correct harness and connectors are going in as intended. Forcing an incorrect connection may result in severe damage to the speakers and fan.*

DISPLAY LIGHTS UP, FAN WILL NOT TURN ON

Turn machine on by pressing START. Is the **GREEN LED** next to the fan control illuminated?

— **NO** →

1. Make sure extension harness is plugged into CN3 connector on power supply board.
2. Check for +12Vdc across the RED & GREEN wire on power supply harness(part#70683). Is there 12Vdc?

| **NO**

Replace upper board.

YES

Disconnect fan from the power supply board. Press the Fan + button once. Do you measure 7.0 to 7.5Vdc out of the fan connector from the power supply board?

— **NO** →

1. Disconnect the fan control harness from the power supply board (**RED & BRN** wires). Check for continuity across the harness while pressing the fan +button. If you have no continuity replace the fan control board(part#91124).
2. Replace relay board (part#91116).

YES

Replace Fan

FAN RUNS AT ONE SPEED

1. Disconnect the fan from the power supply board. ****HAVE THE POWER CORD DISCONNECTED FROM THE MACHINE****
2. Plug machine into the wall, then press START. Here is the voltage table for the fan control from the power supply board.

FAN CONTROL	VOLTAGE READINGS
W/O FAN RUNNING	0Vdc
SLOW	7.0 – 7.3Vdc
MEDIUM	9.5 – 10Vdc
FAST	11-12Vdc

If the voltage does not change when you increase the fan control then replace the power supply board. If the voltage readings are correct then check continuity across the red & brown wires from the fan control harness without pressing the + or – button. **CONTINUITY = REPLACE FAN CONTROL BOARD W/ HARNESS. NO CONTINUITY = REPLACE FAN**

DISPLAY TURNS ON, NO SOUND FROM SPEAKERS

Did the green LED next the fan control buttons turn on?

NO →

1. Pull back display and make sure that power harness is plugged into 12V AUX connector on back of display board.
2. Check for DC voltage out of RED & GREEN wires from power harness. Did you measure 12Vdc?

YES

Check for 12Vdc across CN6 harness (WHT & WHT/BLU wires) from the power supply board. Did you measure 12Vdc?

NO

NO

Replace Upper Board

YES

Replace relay board. (part#91116).

Set your meter for continuity & check continuity across the brown and orange wires while hitting the volume + button. Did you get continuity?

NO → Replace amp (part#91107)

YES

Replace amp (part#91107)