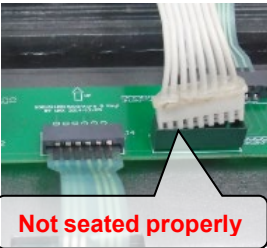

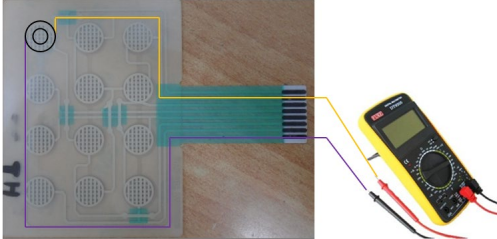
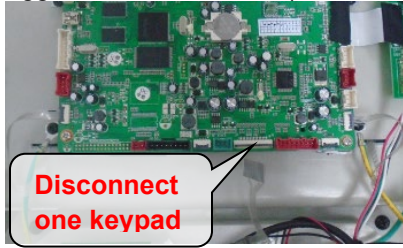

		Troubleshooting Guide: Keypad	
Prepared by: Regina Templeton	Date Prepared: 4/20/2015	Models Affected: Retail Cardio	


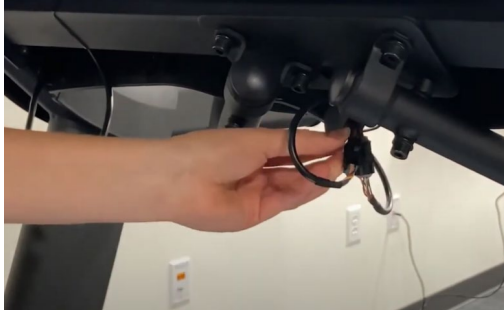
## DESCRIPTION

Use the following table to troubleshoot issues with the keypad.

Symptom	Possible Cause	Test Procedure	Repair
All or some of the keys on the console do not function.	The ribbon cables connecting the membrane keypad to the upper board are not seated properly or are disconnected. 	Verify that the ribbon cables are securely connected to the upper board.	Remove and reseat the cables.
	The membrane keypad is defective.	Press the keys. <ul style="list-style-type: none"> <li>- If a key does not beep until it is released, massage the buttons on the keypad to make sure that none are stuck.</li> <li>- If there are no corresponding beeps, check the button function in Eng0.</li> </ul>  To determine the specific problem button(s), measure the resistance. <ul style="list-style-type: none"> <li>- Unplug the keypad ribbon cable.</li> <li>- Place the probes on the correct keypad pins and press the corresponding keypad button to measure resistance. (Instructions continue on page 2.)</li> </ul>	

Symptom	Possible Cause	Test Procedure	Repair
		 <p>Any measurement above 500 <math>\Omega</math> means the keypad is defective.</p> <p>If the console has multiple keypads and one or more buttons does not beep or respond when pressed, disconnect one keypad (leaving other keypads plugged in) and test. Repeat procedure for each keypad, including the handgrip toggles (disconnect both toggles at the same time).<sup>1</sup></p> 	<p>Do other keypads become responsive when one keypad is disconnected?</p> <ul style="list-style-type: none"> <li>- Yes: Replace only the disconnected keypad.</li> <li>- No: Replace the console.</li> </ul>
Keypad stop button is stuck.		While observing the console, it resets to “Select User” and then beeps three times.	Replace the keypad.
The upper board is defective.		Press the keys. There are corresponding beeps, but the console does not respond.	Replace the upper board.
Damaged or shorted keypad cable.		Look for bends or cuts in the keypad cable.	Replace the keypad cable.
<p>Horizon Studio Series Treadmills (7.0AT, 7.4AT, and 7.8AT):</p> <p>The wires from the hand grips are connected to each other.</p> <p>(This may cause speed quick keys 1, 3, and 5 to work intermittently.)</p>		<p>Check under the console to see the connections. When properly assembled, each grip wire should be connected to a wire from the console.</p> 	Correct the wire connections.

<sup>1</sup> This test procedure applies to Vision Classic (TM435) or Elegant (TM436) consoles on a TF20, T40, or T80 frame.

Symptom	Possible Cause	Test Procedure	Repair
The programs or the levels will cycle through quickly (scroll). The keypad will not respond properly while this is occurring.	The faceplate membrane and overlay are defective.	Massage the buttons on the keypad to make sure that none are stuck.  Check the button function in Eng0.	Replace the faceplate membrane and overlay.
	If the unit has toggles, toggle switch membranes and overlays are defective.	Remove the faceplate and unplug the two white wires in the bottom right and left corners of the UCB OR remove the screws holding the heart grips in place and then unplug the membranes from here. (Instructions continue on page 3.)  <b>Disconnect the keypad</b> The display stops scrolling.	Replace the toggle switch membranes and overlays.
When the fan button is pressed, speed changes to 5 mph.  OR  When speed quick key 5 is pressed, the fan activates.	Horizon Studio Series Treadmills (7.0AT, 7.4AT, and 7.8AT):  The wires from the hand grips are connected to each other.	Check under the console to see the connections. When properly assembled, each grip wire should be connected to a wire from the console. 	Correct the wire connections.