

# Build Manual

## PCB Assembly Procedures for the C-Thru Music AXIS49 HT-Mini

Rev 2 – January 2009

# OP 1 — Unpacking

- Unpack the unit and retain the plastic bag and box shown. These must be kept with the unit as they will be shipped in these once the unit has been built
- Check the boxes for damage
- Check that the labels are not damaged. These will be supplied separately on a reel



# Visual check - Key layout

Keys **MUST** be laid out in the sequence shown. If the supplied unit does not match the layout below it should be rejected and not used

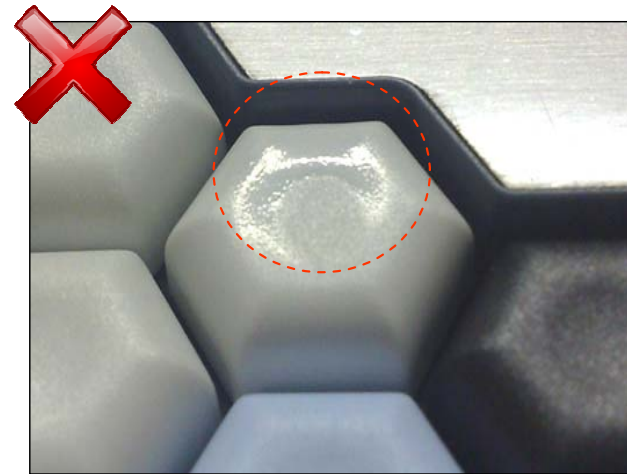
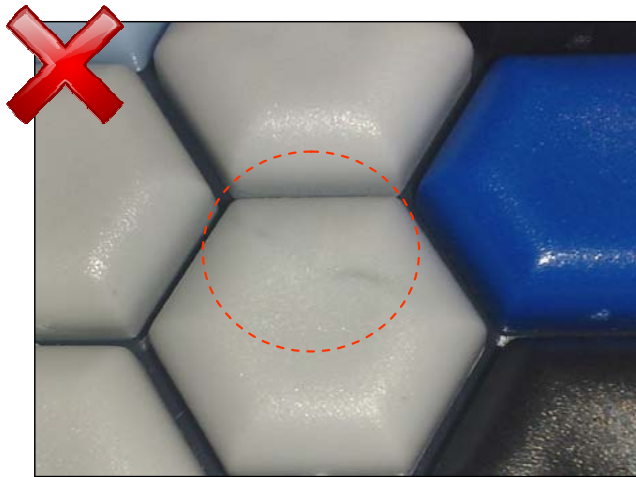


## **Quality Check 1**

All keys should be rejected if they show the following problems:-

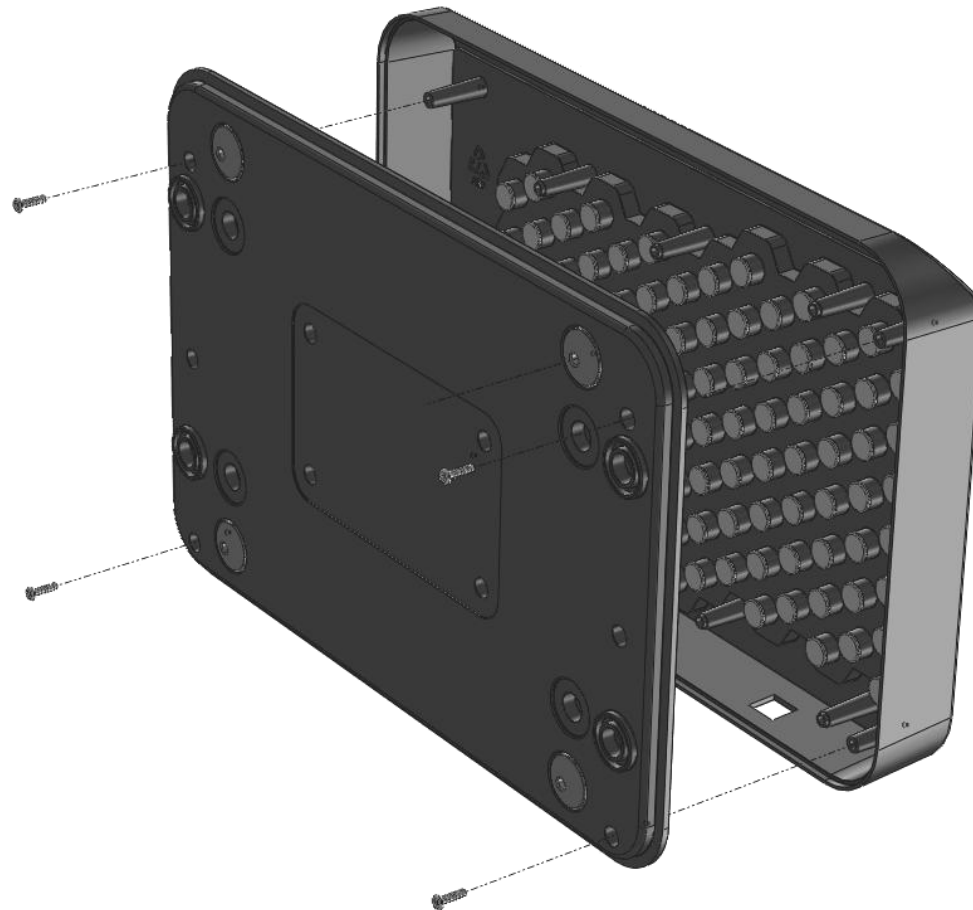
Short shots, Colour cross contamination, The colour doesn't match the supplied colour guide keys

**IF IN DOUBT, ASK**



# OP 2 — Lid Removal

- Remove the 4 base retaining screws and remove the base



## **Quality Check 2**

Key plugs (3304-004) should be rejected if they show the following problems:-  
Short shots, Excess flash on the split line, Keys should move freely,  
Ensure all plugs are firmly inserted into the keys

**IF IN DOUBT, ASK**



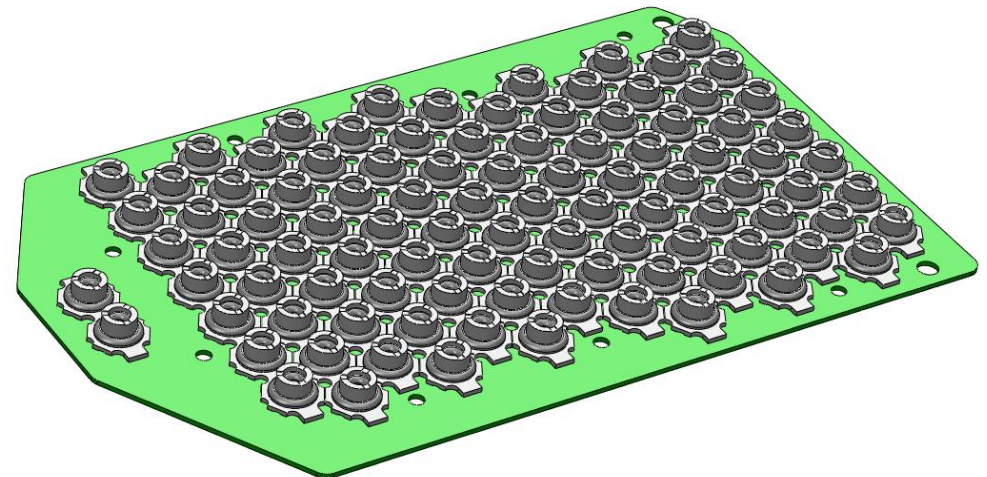
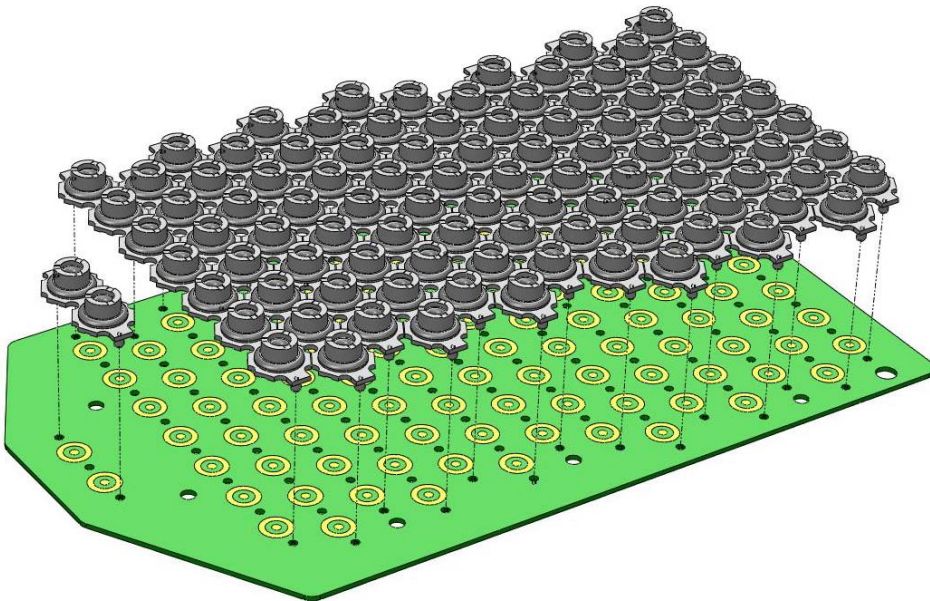
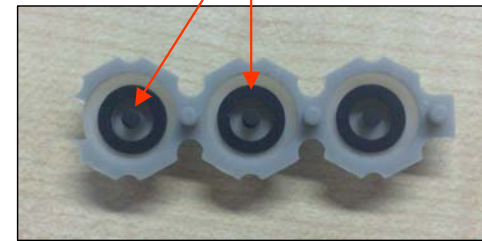


# OP 3 — Keypad Assembly

- Insert the keypads into the PCB as shown
- Ensure all location pips are completely inserted into the PCB
- All keypads should be level once inserted

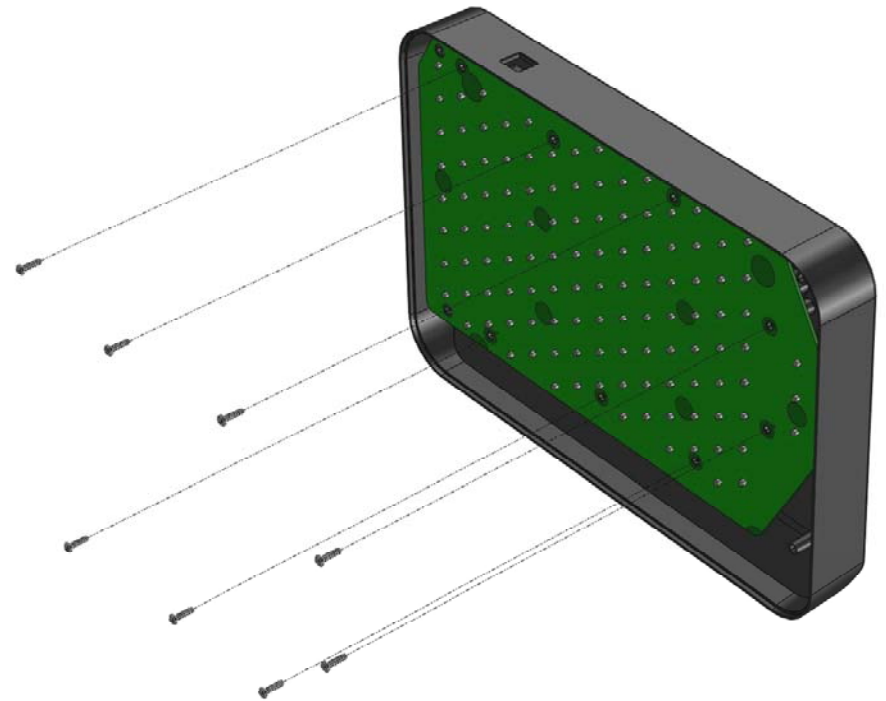
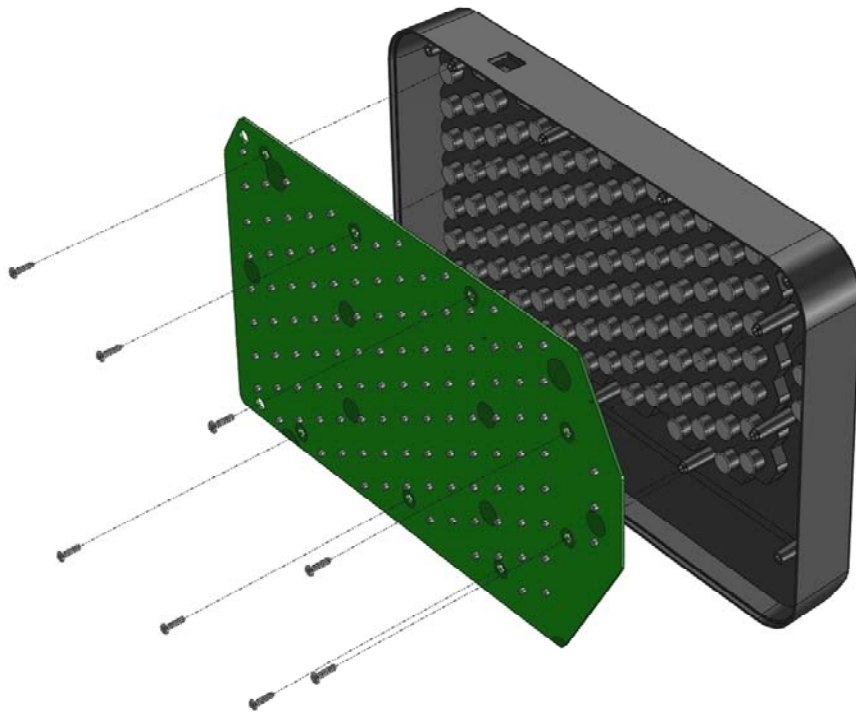
## Quality Check 3

Carbon layer must be complete with no gaps



# OP 4 – PCB Installation

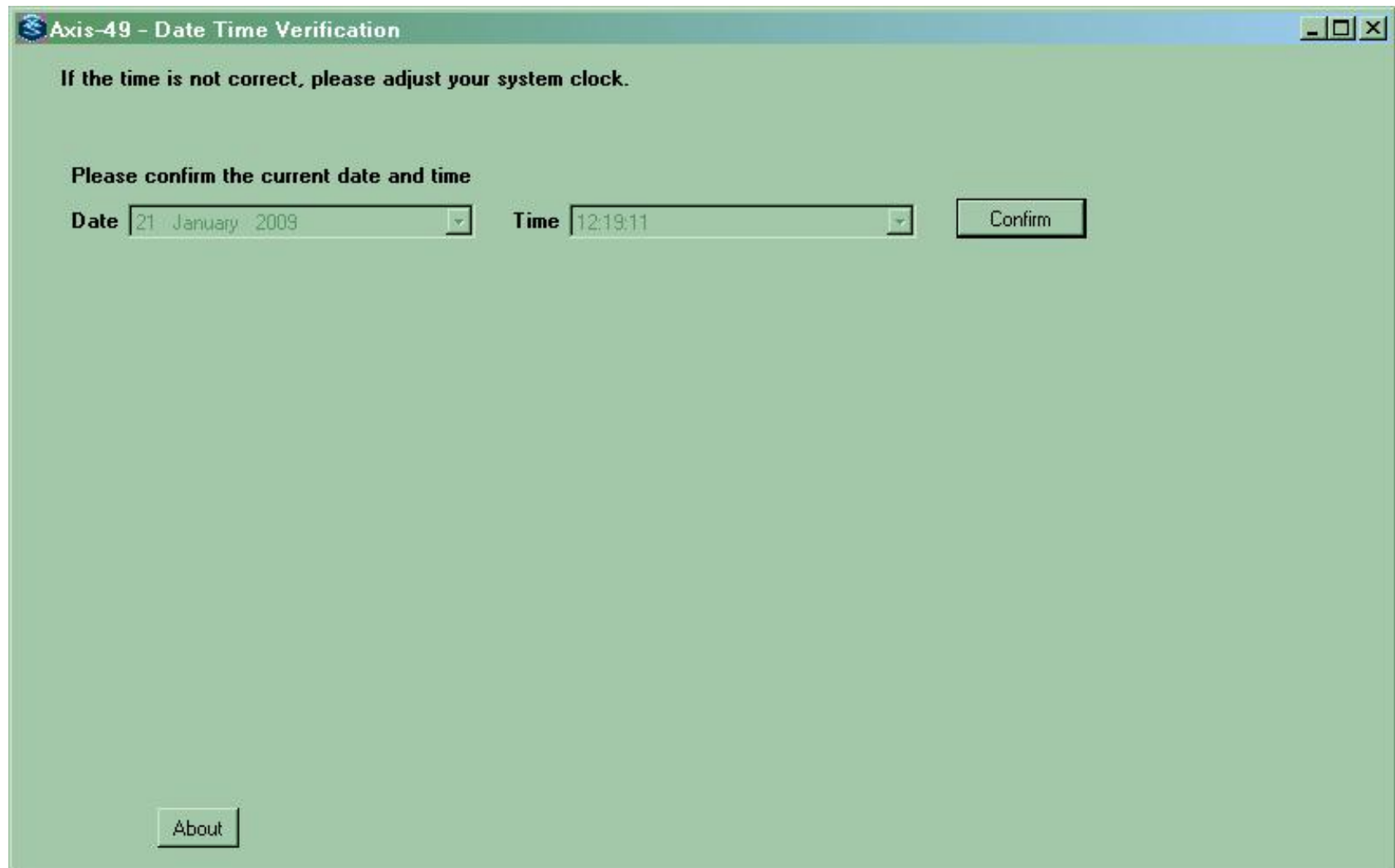
- Fit PCB onto the location pins as shown
- Insert screws and tighten to 3-5Nm.
- The unit will now be ready for testing.



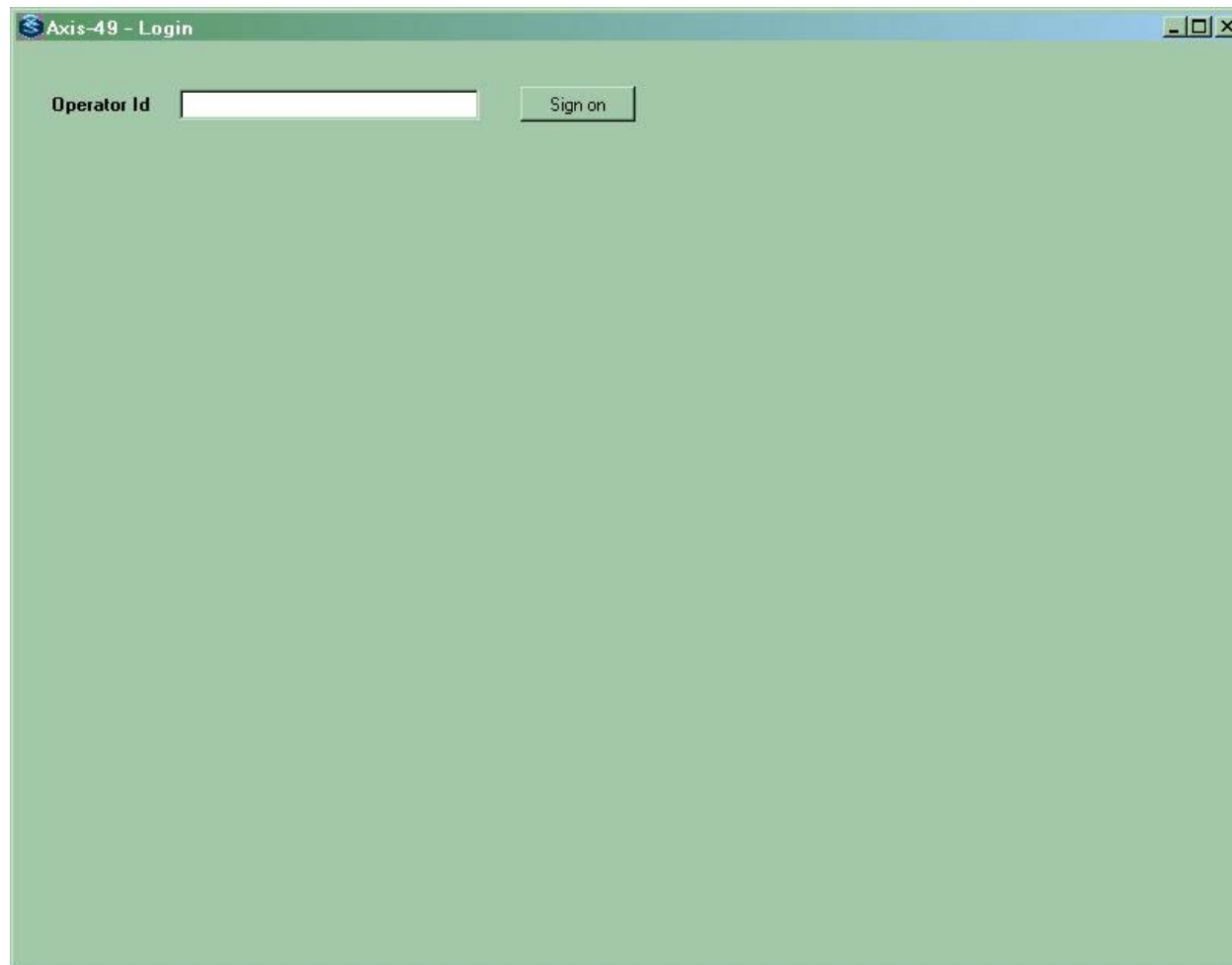


# Software Testing

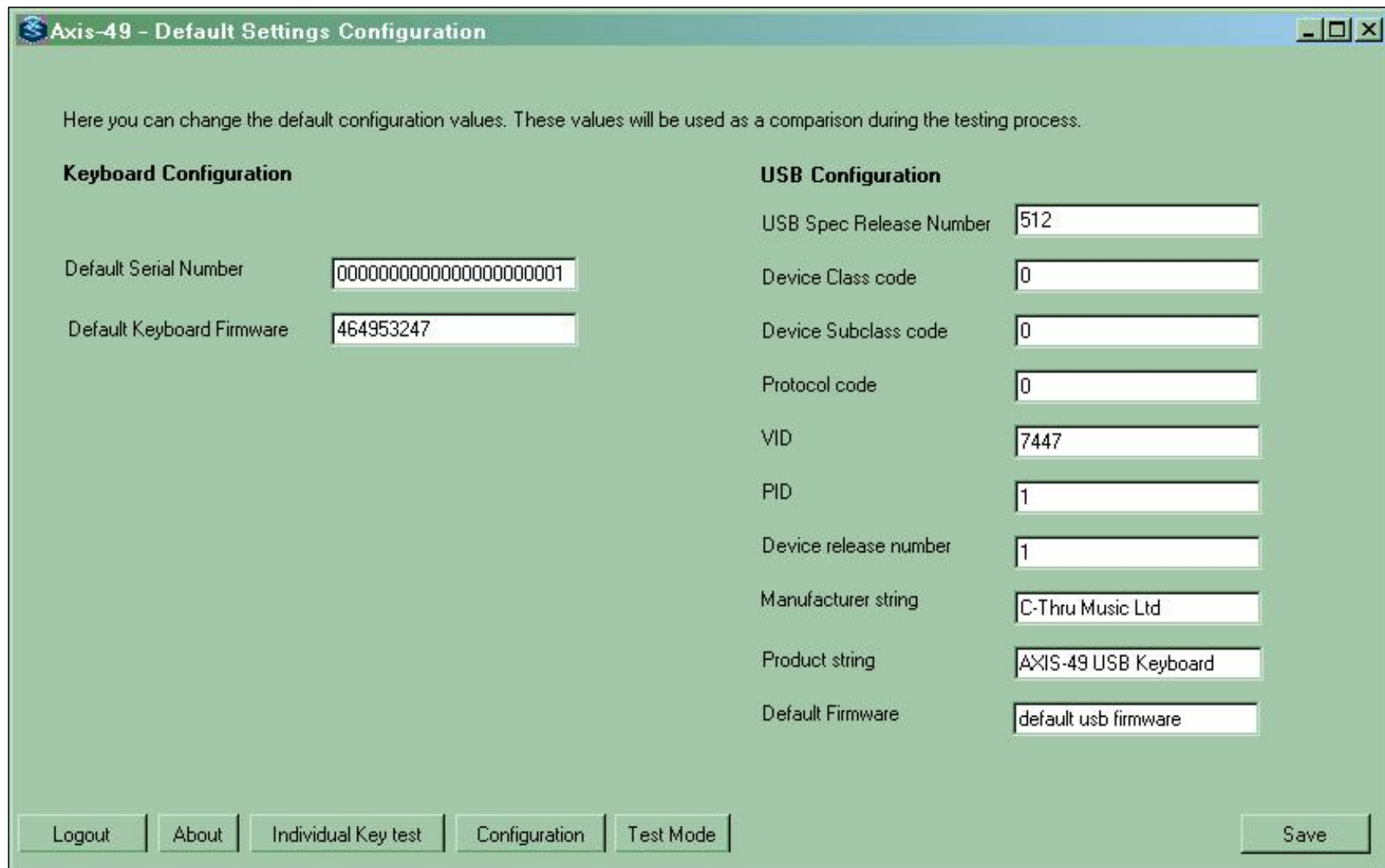
## Start Up Screen



Supervisor to log in first and set up



The supervisor has the ability to change the settings. The normal user will not be able to do this in their log-in.



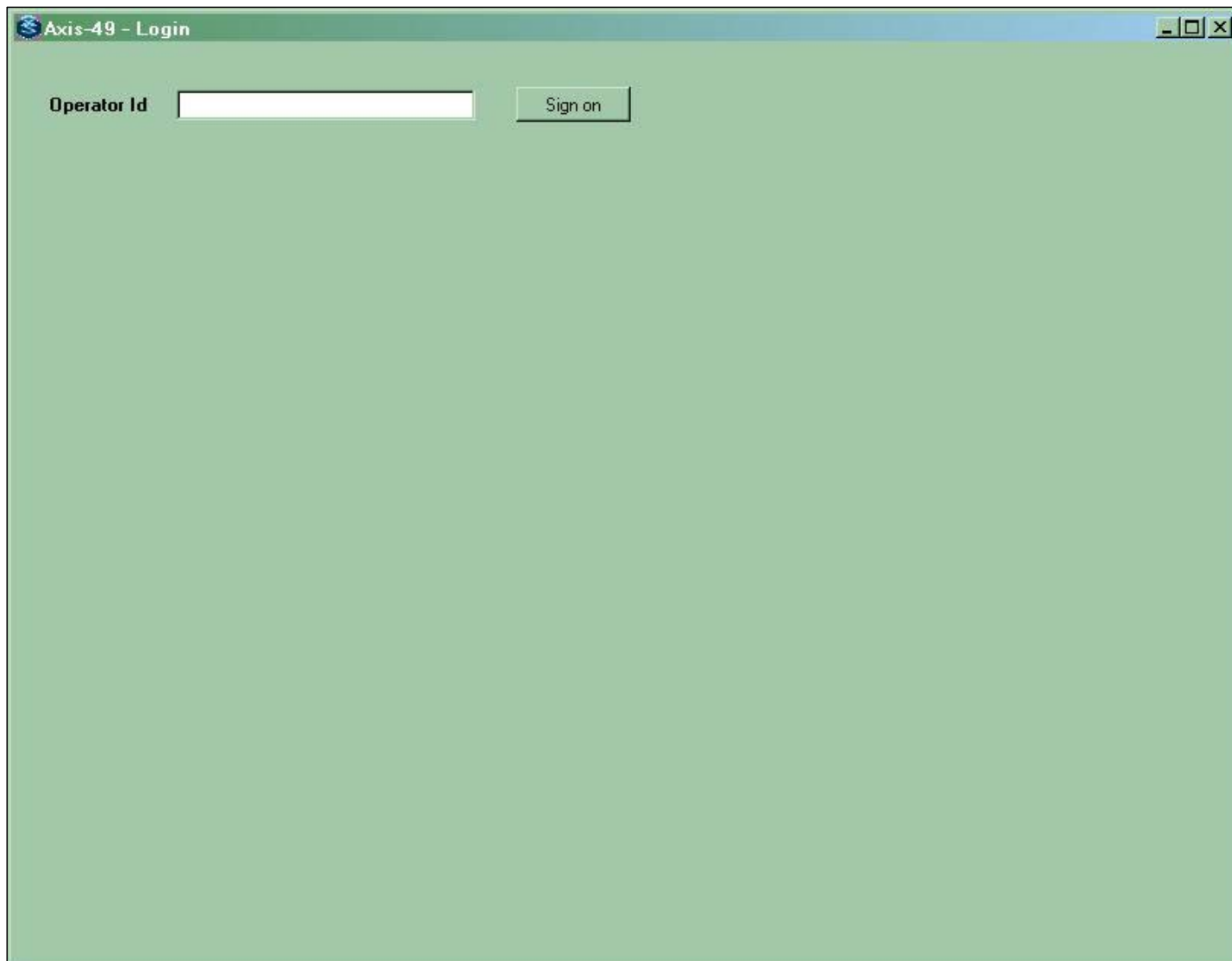
Axis-49 - Default Settings Configuration

Here you can change the default configuration values. These values will be used as a comparison during the testing process.

Keyboard Configuration		USB Configuration	
Default Serial Number	<input type="text" value="000000000000000000000001"/>	USB Spec Release Number	<input type="text" value="512"/>
Default Keyboard Firmware	<input type="text" value="464953247"/>	Device Class code	<input type="text" value="0"/>
		Device Subclass code	<input type="text" value="0"/>
		Protocol code	<input type="text" value="0"/>
		VID	<input type="text" value="7447"/>
		PID	<input type="text" value="1"/>
		Device release number	<input type="text" value="1"/>
		Manufacturer string	<input type="text" value="C-Thru Music Ltd"/>
		Product string	<input type="text" value="AXIS-49 USB Keyboard"/>
		Default Firmware	<input type="text" value="default usb firmware"/>

Logout About Individual Key test Configuration Test Mode Save

# User Log-In Screen



The image shows a screenshot of a web-based login interface. The window has a title bar that reads "Axis-49 - Login". The main content area is a solid light green color. In the top-left corner of this area, the text "Operator Id" is displayed next to a white rectangular text input field. To the right of the input field is a small, rectangular button with the text "Sign on".

Axis-49 - DeviceSelector

Please Select a device

USB Optical Mouse  
Dell USB Keyboard  
Axis-49 USB Keyboard

USB Spec Release Number

Device Class code

Device Subclass code

Protocol code

VID

PID

Device release number

Manufacturer string

Product string

Logout About

Axis-49 - DeviceSelector

**The usb configuration is correct**

Please Select a device

Axis-49 USB Keyboard

**USB Configuration**

USB Spec Release Number

Device Class code

Device Subclass code

Protocol code

VID

PID

Device release number

Manufacturer string

Product string

Logout About Confirm

Axis-49 - DeviceSelector

**The usb configuration is incorrect**

Please Select a device

USB Optical Mouse

**USB Configuration**

USB Spec Release Number

Device Class code

Device Subclass code

Protocol code

VID

PID

Device release number

Manufacturer string

Product string

Logout About



Axis-49 - Verify Firmware

Select a Midi Device

USB Audio Device  
Microsoft GS Wavetable SW Synt

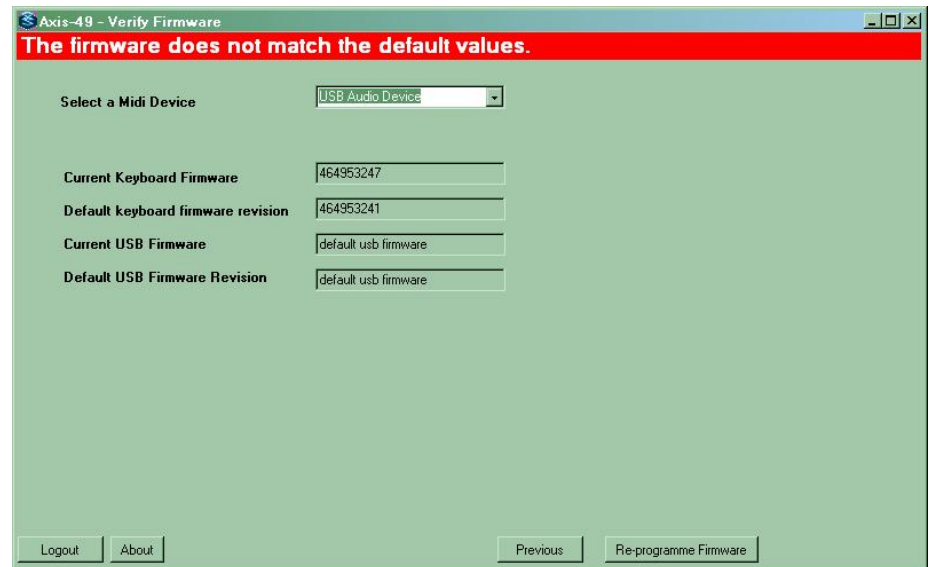
Current Keyboard Firmware

Default keyboard firmware revision

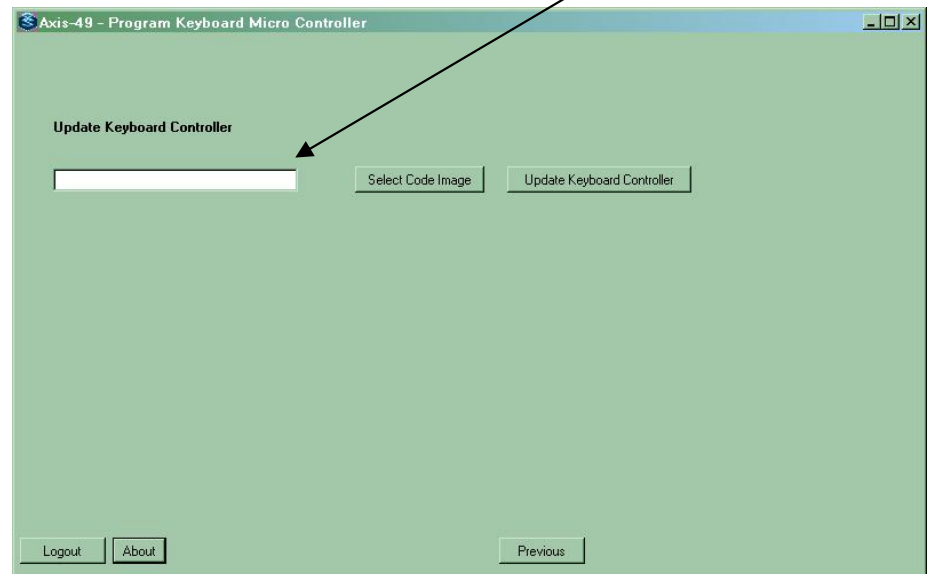
Current USB Firmware

Default USB Firmware Revision

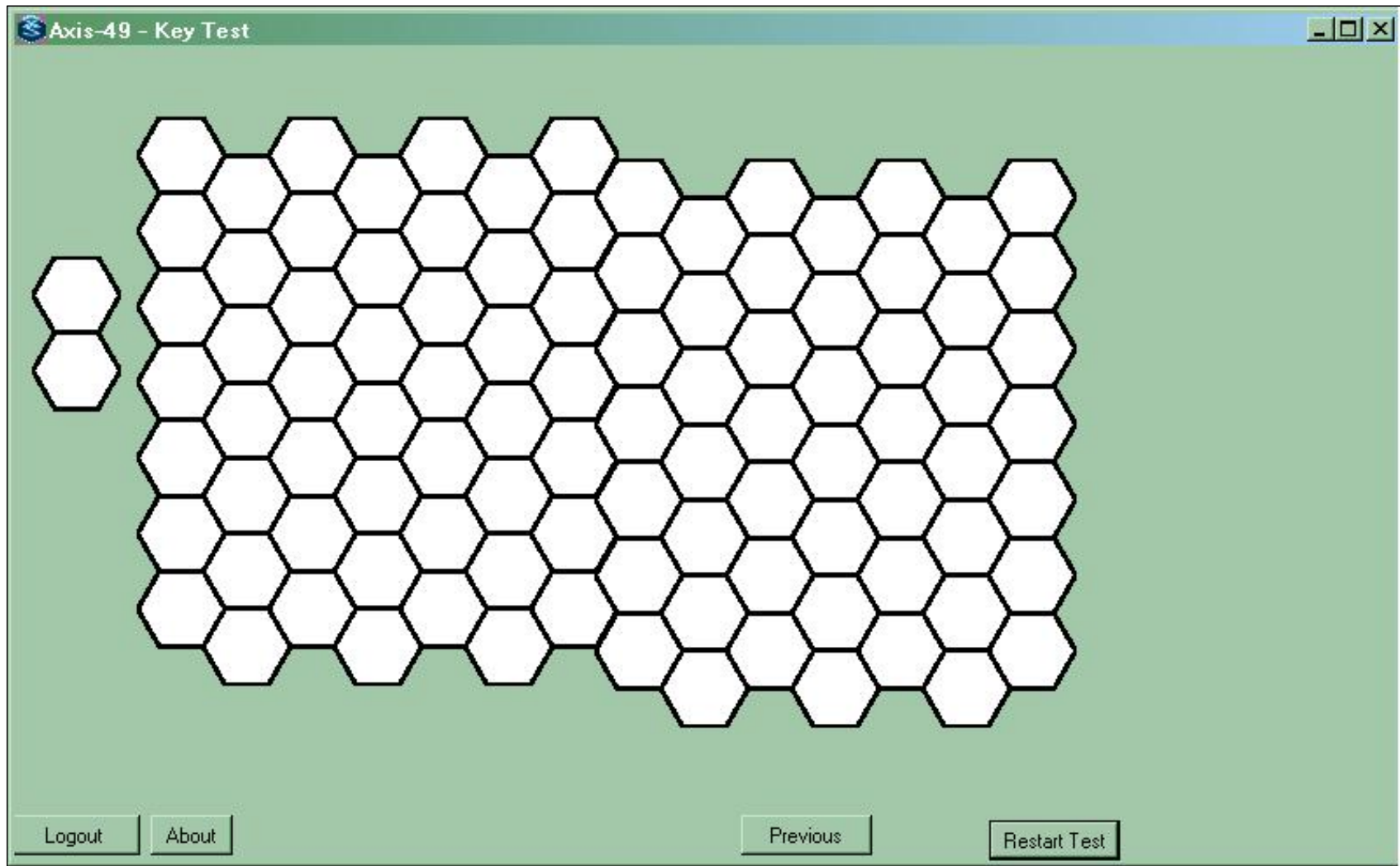
Logout About Previous



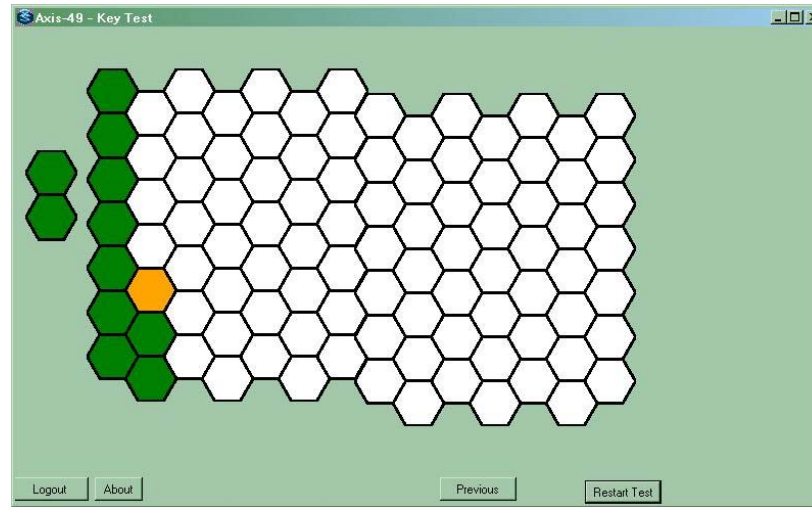
OK



# Key Test Start Up Screen

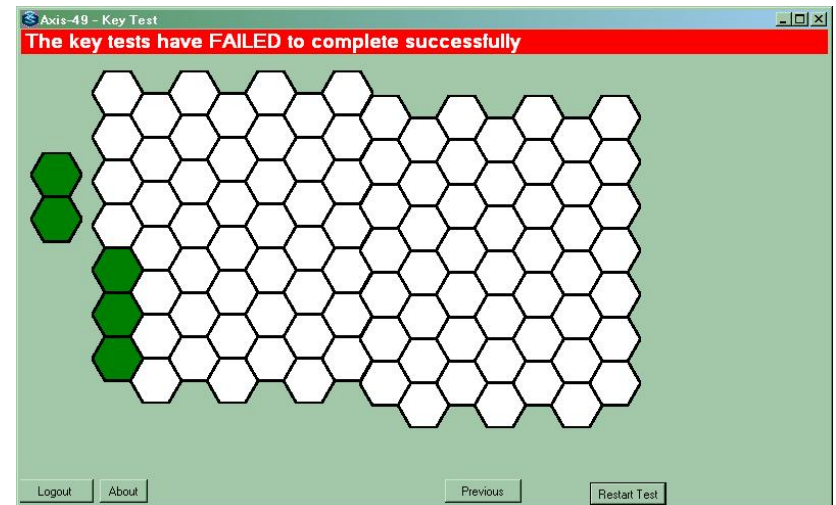


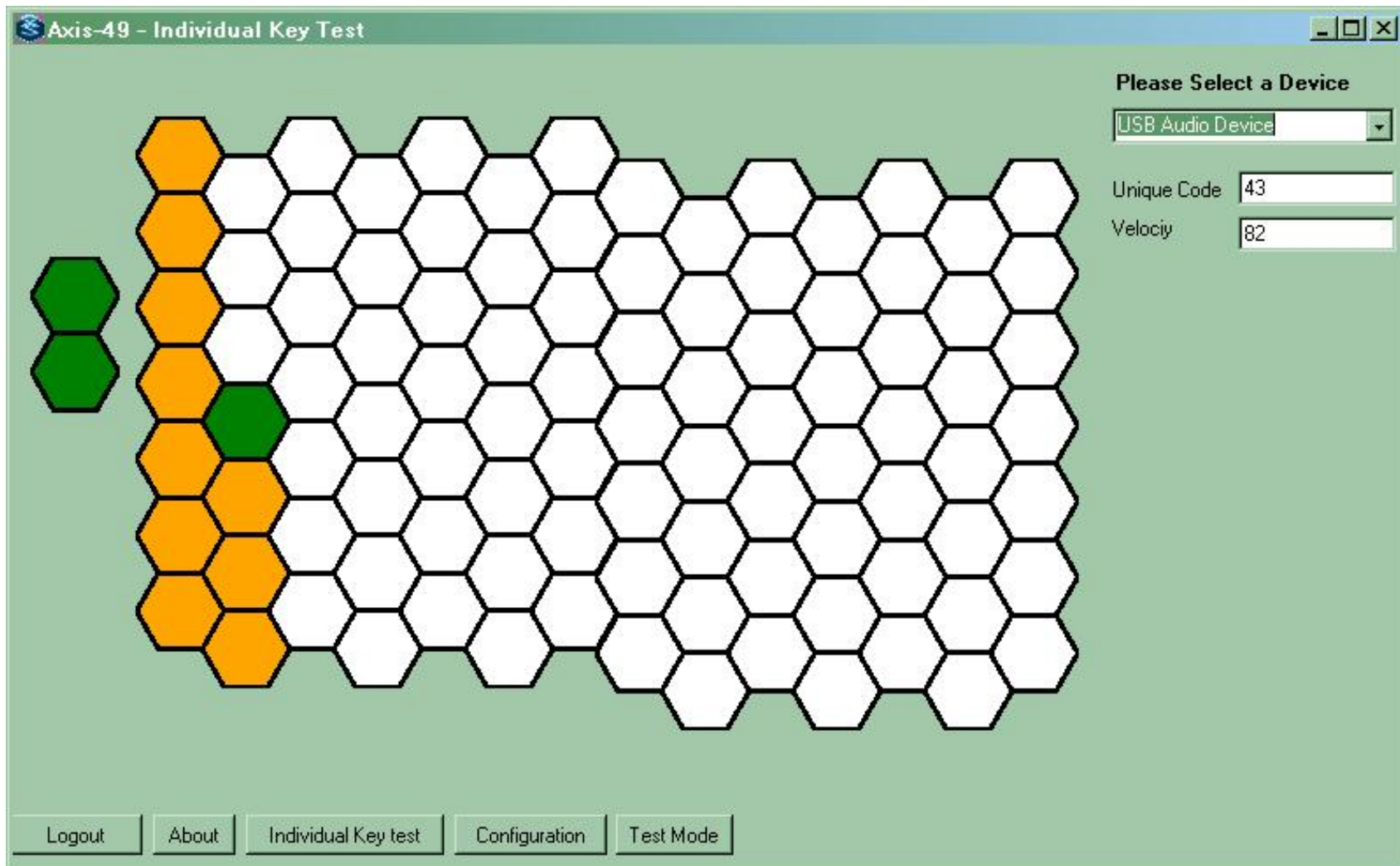
During the key test, the keys will appear orange when pressed and green when released. If nothing happens the key will remain white



Pass

Fail





The key will appear green in colour when pressed and orange when released. This test is carried out by the supervisor and is used to test a key that has already failed.



Axis-49 - Programme Serial number

**The serial number has been programmed successfully**

Please confirm the serial number or enter a new one.

9	8	7	6	5	4	3	2	1	9	8	7	6	5	4	3
2	1	9	8	7	6	5	4	3	2	1	9	8	7	6	7

Confirm

Logout About Previous Previous Enable

Axis-49 - Programme Serial number

**The device currently has no serial number**

Please confirm the serial number or enter a new one.

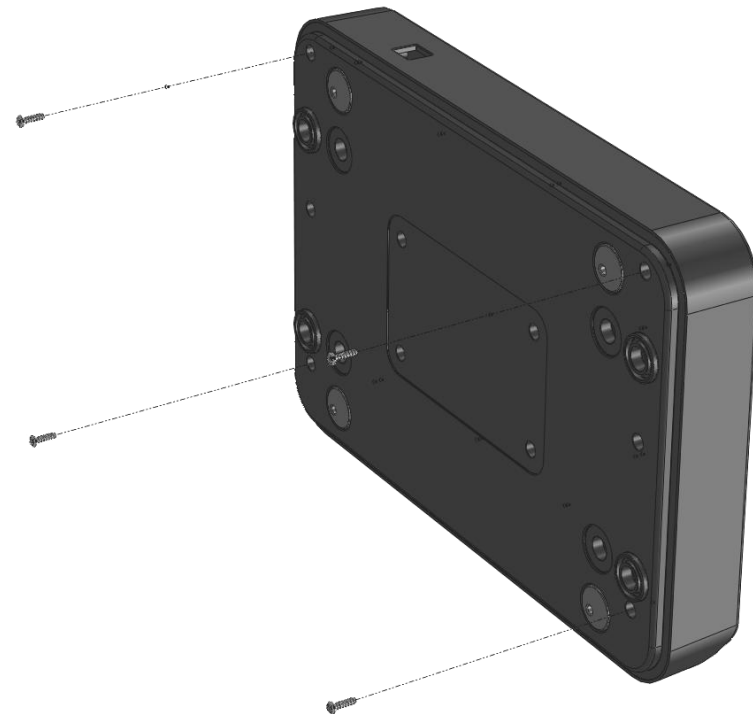
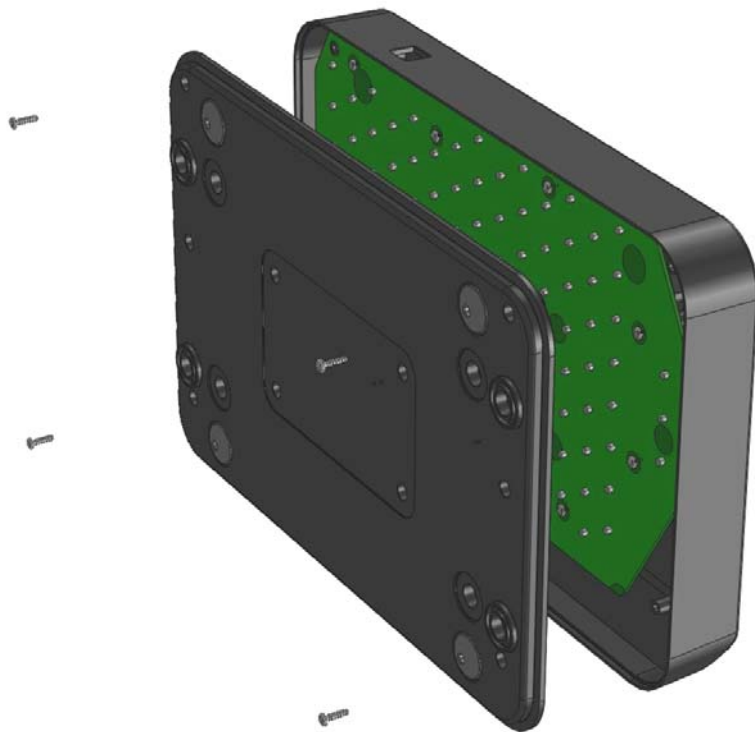
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2

Confirm

Logout About Previous Previous

# OP 5 – Lid Replacement

- Replace lid ensuring correct orientation
- Replace the 4 screws and tighten to 3-5N/m



# OP 6 – Label Fitting



Label must be placed in recess in the correct orientation with no air bubbles

Ensure that the unit serial numbers tallies to the external box label serial number

## **Quality Check 4**

- Ensure label is in the correct orientation
- Ensure the label is flat with no air bubbles
- Ensure that the serial number and barcode match the external box label

**IF IN DOUBT, ASK**

# Packing

Repack the unit in the original packaging along with the DVD and USB cable.

Seal and the unit is ready for shipping

