

CONTROLLER RECALIBRATION PROCEDURE

WARNING!

Please follow these procedures exactly as they are written. If you do not, you could PERMANENTLY DISABLE YOUR PHOTON X25. Whenever you see text in **BOLD CAPS**, those are warnings of **THINGS YOU SHOULD NOT DO**.

IMPORTANT!

Please read through these instructions carefully. If you do not understand them completely, **PLEASE DO NOT PROCEED.**

We recommend that you follow the two procedures described in the "**Quick Recalibration**" section of this document to recalibrate the controllers on your Photon X25. If you would like to learn about the Test Mode in depth, you may wish to read the section titled "**Detailed Description**" – it is supplemental and not required reading. As long as you follow the simple instructions in "Quick Recalibration," you will ensure the proper recalibration of the Photon X25's controllers.

QUICK RECALIBRATION

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PROBLEM: My Pitch and/or Mod Wheels aren't working properly; I need to recalibrate them.

SOLUTION: Procedure 1 (required):

1. Hold down both Octave buttons and power on the Photon X25. Keep pressing them down until you see something like "QP1-v1.01a1" in the display, and then let go. **DO NOT PRESS ANY OTHER BUTTONS** until you proceed to step 2.

We repeat: DO NOT PRESS THE OCTAVE BUTTONS AGAIN while on this page, and DO NOT PRESS THE GLOBAL AND OCTAVE DOWN BUTTONS AT THE SAME TIME. You will destroy your Photon X25 if you do.

- 2. Let Hit Page Right one time, until you see the words "P2 Set Defaults?"
- 3. Press both Octave keys to lock in the default values for all controllers.
- 4. Turn the unit off and back on. The wheels should work fine now.
- 5. We highly recommend that you perform the "Set P/M Low" and "Set P/M High" procedures listed in **"Procedure 2"** after performing Procedure 1.

SOLUTION: Procedure 2 (optional, but highly recommended after following "Procedure 1"):

1. Hold down both Octave buttons and power on the Photon X25. Keep pressing them down until you see something like "QP1-v1.01a1" in the display, and then let go. **DO NOT PRESS ANY OTHER BUTTONS** until you proceed to step 2.

We repeat: DO NOT PRESS THE OCTAVE BUTTONS AGAIN while on this page, and DO NOT PRESS THE GLOBAL AND OCTAVE DOWN BUTTONS AT THE SAME TIME. You will destroy your Photon X25 if you do.

- 2. Let Hit Page Right four times, until you see the words "P5 Set P/M Low".
- 3. Move the Pitch and Mod wheels all the way down (toward you) and hold the Pitch wheel there (it's spring-loaded).
- 4. Press both Octave keys to lock in the "Low" values for these wheels.
- 5. **I** Hit Page Right one time, until you see the words "P6 Set P/M High".
- 6. Bring the Pitch wheel to center (its resting position) and bring the Mod Wheel all the way up (away from you, as far as it will go).
- 7. Press both Octave keys to lock in the current values for these wheels.
- 8. Turn the unit off and back on. The wheels should work fine now.

DETAILED DESCRIPTION

To recalibrate the controllers on the Photon X25, the unit must be in "Test Mode." This is a special mode we have "hidden" so you won't accidentally recalibrate the controllers during normal operation.

ENTERING TEST MODE

To enter Test Mode:

- **1.** Turn off the Photon X25.
- 2. Press and hold down the Octave Up and Octave Down buttons.

OCTAVE

3. Turn on the Photon X25. At first you will see the familiar start-up screen. But after holding down the Octave buttons for about three seconds, you should see a display that looks like this:

QP1-v1.01a1 QPXusb-v1.02a

4. As soon as this screen appears, **release the buttons** you have been holding down. **Do not press any others** until you have read the following sections.

WARNING: DO NOT TRY ANY BUTTON COMBINATIONS WHILE ON THIS PAGE!

We repeat: DO NOT PRESS THE OCTAVE BUTTONS AGAIN while on this
 page, and DO NOT PRESS THE GLOBAL AND OCTAVE DOWN BUTTONS AT THE SAME TIME. You will destroy your Photon X25 if you do.

TEST MODE SPECIAL KEYS

There are several key presses that perform particular functions in Test Mode.

TEST MODE KEY FUNCTIONS				
Key Name	Keys	Description		
Next Page	(page Right)	This key moves to the next test.		
Previous Page	(Page Left)	This key moves to the previous test.		
Reset	OCTAVE (Octave Up & Octave Down)	 These keys, pressed simultaneously, perform a different function in each test. Please see the next section, "Navigating Test Mode," for the specific function of Reset in each test page. WARNING! Pressing the Reset key combination (Octave Up and Octave Down) can erase important configuration data or even the firmware. DO NOT PRESS THESE BUTTONS if you are not sure what will happen when you do. 		

NAVIGATING TEST MODE

Each page of Test Mode shows a menu title on the LCD screen. The tests can be navigated using Page Left and Page Right to go to the previous or next menu respectively.

The tests are as follows:

TES	TEST MODE MENU PAGES					
ID	Title	Available Keys	Description			
01	<ver></ver>	<none></none>	Gives version number.			
			WARNING: DO NOT TRY ANY BUTTON COMBINATIONS WHILE ON THIS PAGE.			
			We repeat: DO NOT PRESS THE OCTAVE BUTTONS AGAIN while on this page, and DO NOT PRESS THE GLOBAL AND OCTAVE DOWN BUTTONS AT THE SAME TIME. You will destroy your Photon X25 if you do.			
02	Restore Defaults	(Octave Up & Octave Down)	This menu will configure the global settings to default. It does not erase any user programs, but does reset global parameters such as the controller calibration values.			
			Pressing the Reset key combination (Octave Up and Octave Down) while on this page will reset global settings. After this is done, the LCD display will show the word "Stored." This indicates that the defaults have been restored and saved to the Photon's memory.			
			Note that resetting the defaults will erase the controller calibration data. It is generally a good idea to perform the re-calibration routines outlined in Menu 05 and Menu 06 below after resetting the defaults.			
03	KEY	<none></none>	This menu displays velocity and note information for the piano keyboard.			
			Note: no calibration occurs on this page.			
04	LED	<none></none>	This menu simply turns on all the LEDs.			
			Note: no calibration occurs on this page.			
05	Set P/M Low	OCTAVE	This menu allows the user to calibrate the Pitch			
		(Octave Up & Octave Down)	their minimum position (closest to user)			
		(Pressing the Reset key combination (Octave Up			
			and Octave Down) will store the minimum			
			values of these controllers so they will work			
			accurately.			

TEST MODE MENU PAGES (continued)				
ID	Title	Available Keys	Description	
06	Set P/M High	(Octave Up & Octave Down)	 This menu allows the user to calibrate the Pitch Wheel and Mod Wheel. Be careful here! The procedure to follow for each wheel is different: 1. Move the Pitch Wheel to CENTER (its resting position). 2. Move the Mod Wheel to MAXIMUM (farthest away from user). If the above instructions have been followed properly, pressing the Reset key combination (Octave Up and Octave Down) will store the values of these controllers so they will work 	
07	POTS	<none></none>	This menu identifies and shows data for all top panel pots, the pitch and mod wheels, and the	
			rear panel expression pedal. Note: no calibration occurs on this page.	
08	AXYZ	<none></none>	This menu displays real-time AXYZ controller information using the 3 coordinates. Note: no calibration occurs on this page.	
09	SWITCH	<all></all>	This menu identifies the top panel switches as they are pressed. It also displays information when the footswitch is pressed/released and when the encoder is turned or pressed. Note: no calibration occurs on this page.	