



*a25*  
**PRIMUS**

USB Audio Interface / MIDI Controller

# Quick Start User Guide

*JamMate*<sup>®</sup>  
[www.jammate.net](http://www.jammate.net)

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\* All specifications are subject to change without prior notice





## INTRODUCTION

Congratulations on your purchasing of the JamMate PRIMUS a25. The JamMate PRIMUS a25 is a most powerful gear for MIDI and audio recording process. As combination of MIDI controller and audio interface, all you need to produce music is just the PRIMUS a25 and your computer. Conveniently, PRIMUS a25 is equipped with MIC preamp, instrument preamp, line in/out, headphone preamp and MIDI controllers. And PRIMUS a25 is USB bus-powered, so it is no additional power required. PRIMUS a25 gives you total control over MIDI and audio parameters. You can experience ultimate USB technology of JamMate with this product.

## PRIMUS a25 Features

- 25-key MIDI keyboard controller with 16 channel MIDI I/O
- 24-bit / 96 kHz Audio interface
- 8 assignable MIDI controller knobs and encoders
- Function keypads and a data wheel with 3 digit 7-segment LED display
- 5 fully-editable internal user banks
- 4 presets optimized for bundled demo software and 1 useful preset
- Pitch bend and modulation wheels
- Sustain pedal jack
- 2 line inputs (1/4" TS), 1 MIC input (1/4" TRS) and 1 Hi-Z input (1/4" TS)
- 2 line outputs (1/4" TS) / Headphone output with level control
- Direct monitor switch for zero-latency monitoring
- USB 2.0 bus powered
- Additional 9V DC power socket
- Supports WDM, ASIO, DirectSound and Core Audio driver with low latency
- Native Instruments Pro53 DEMO, FM8 DEMO, B4II DEMO and Battery 3 DEMO software included

## Minimum system requirement

<b>&lt;PC&gt;</b> Intel Pentium 4 or equivalent and compatible CPU 256MB of RAM One available USB port Microsoft Windows® XP or later	<b>&lt;Mac&gt;</b> Macintosh with G4 or better processor 256MB of RAM One available USB port Mac OS 10.3 or later
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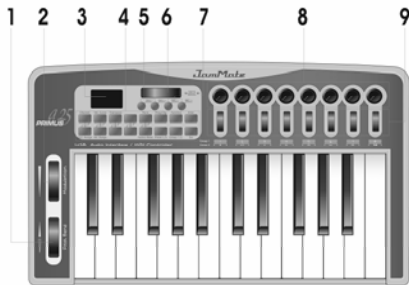
## What's in the box

- JamMate PRIMUS a25
- Installation CD with Native Instruments DEMO software
- Standard USB cable
- This quick start user guide

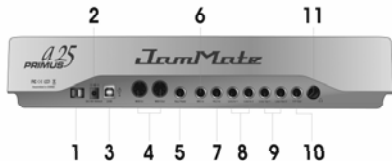
## DETAIL OPERATION

### Top Panel

- 1 → Pitch Bend Wheel
- 2 → Modulation Wheel
- 3 → 3 Digit 7-segment LED Display
- 4 → Function Keypads
- 5 → Octave Selectors
- 6 → Assignable Data Wheel
- 7 → Decrease and Increase Keys
- 8 → 8 Assignable MIDI Controller Knobs
- 9 → 8 Assignable MIDI Controller Encoders



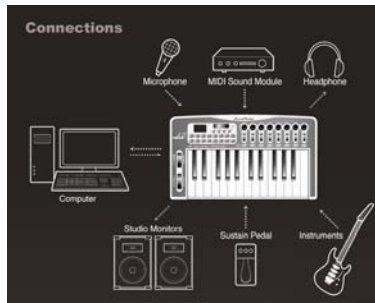
### Rear Panel



- 1 → Power Switch
- 2 → 9V Power Input
- 3 → USB 2.0 Bus Powered
- 4 → MIDI Input and Output
- 5 → Sustain Pedal
- 6 → Microphone Input (1/4" TRS)
- 7 → Hi-Z Input (1/4" TS)
- 8 → 2 Line Inputs (1/4" TS)
- 9 → 2 Line Outputs (1/4" TS)
- 10 → Headphone Output
- 11 → Headphone Level Knob

## CONNECTIONS

1. Connect the PRIMUS a25 to USB port on Computer through included USB cable.
2. Find the USB port on the rear of PRIMUS a25.
3. Connect provided USB cable (Plug type series B) to PRIMUS a25.
4. Find the USB port on your computer.
5. Plug the PRIMUS a25's USB cable (Plug type series A) into the USB port of your computer.
6. Connect the PRIMUS a25 to your equipments (mixer, monitoring system, MIC, instruments, etc.)



## GETTING STARTED GUIDE

This guide is intended as steps of using PRIMUS a25 on your computer. We recommend you follow next instructions.

### Install the driver

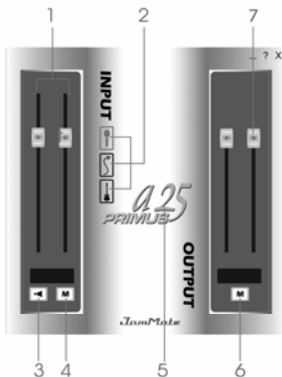
1. Insert included installation CD into CD-ROM in your computer.
2. Find the folder named 'driver' and click the folder.
3. Run 'Installation' file in the 'PRIMUS\_a25\_your\_OS' directory.
4. Keep going to install followed instruction.
5. Complete the installation.
6. If you use windows® OS, then run 'PRIMUSa25\_Control\_Panel\_V1.xx' in 'Control Panel' folder after finishing the driver installation.

## Install the bundled DEMO software

Install bundled software in installation CD and configure the PRIMUS a25 in your application software.

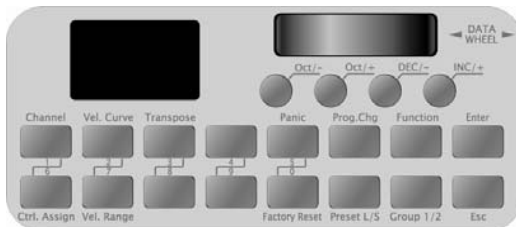
## OPERATION

### Control Panel



- 1 → **Digital Input gain:** This control allows you to adjust input gain up to +24dB.
- 2 → **Input selector:** You can select the input type among 'MIC', 'Line' and 'Hi-z'.
- 3 → **Input direct monitor:** You can monitor the sound from input source with zero latency.
- 4 → **Input mute:** You can select mute button to mute input channels.
- 5 → The PRIMUS a25 logo to indicate the status of the USB connection.
- 6 → **Output mute:** You can select mute button to mute output channels.
- 7 → **Master level:** You can adjust wave output in here. You can adjust input / output by clicking and dragging the Master fader.

## Function Charts



<Function Keypad>

### How to see the function chart

<b>Steps</b>	The sequence by pressing the corresponded button in function keypad.
<b>Operating</b>	Operating functions by pressing the button in function keypad.
<b>LED display</b>	LED display shows status of operation.
<b>Function key's light</b>	Status of the function key's light.



1) **Channel:** The [Channel] button allows you to select the transmitting channel for your keyboard.

-Global Mode

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Channel]	CH.	[Function] blink
3	[Number]	(1~16)	[Function] blink
4	[Enter]	(1~16) blink once → A.25	[Function] turn off

-Assign Mode: Assigned controller's channel.

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Channel]	CH.	[Function] blink
3	[Target Controller]	Assigned channel number (1~16)	[Function] blink
4	[Number]	New assigned channel number (1~16)	[Function] blink
5	[Enter]	(1~16) blink once → A.25	[Function] turn off

2) **Velocity Curve:** The [Velocity curve] button allows you to select the velocity curve of your keyboard. (Type: 1~3)

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Vel. curve]	VLC	[Function] blink
3	[Number]	(1~3)	[Function] blink
4	[Enter]	(1~3) blink once → A.25	[Function] turn off

3) **Transpose:** The [Transpose] button allows you to sets the transposition of your keyboard.

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Transpose]	TPS	[Function] blink
3	[Number]	(-12~12)	[Function] blink
4	[Enter]	(-12~12) blink once → A.25	[Function] turn off

4) **Controller Assign:** The [Controller Assign] button allows you to define function of target knobs and wheel controller.

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Ctrl. Assign]	Con	[Function] blink
3	[Target Controller]	Assigned controller number (0~127)	[Function] blink
4	[Number]	New assigned controller number (0~127)	[Function] blink
5	[Enter]	(0~127) blink once → A.25	[Function] turn off

5) **Velocity Range:** The [Velocity Range] button allows you to limit velocity range. (Velocity Low Level ~ High Level)

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Vel. Range]	VrL	[Function] blink
3	[Number]	Minimum velocity (0~127)	[Function] blink
4	[Enter]	(0~127) blink once → Vr.H	[Function] blink
5	[Number]	Maximum velocity (0~127)	[Function] blink
6	[Enter]	(0~127) blink once → A.25	[Function] turn off

6) **Panic:** This button transmits all notes off, all sound off, and reset all controllers' messages on all MIDI channels.

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Panic]	PAC	[Function] turn off

7) **Factory Reset:** This button returns all data to their default setting.

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Factory Reset]	FAC.	[Function] blink
3	[Enter]	A.25	[Function] turn off

8) **Program. Change:** This button lets you transmit a program change message.

-Default Mode

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Prog.Chg]	PG.C	[Prog.Chg] blink
2	[Number]	(0~127)	[Prog.Chg] blink
3	[Enter]	(0~127) blink once → A.25	[Prog.Chg] turn off

**-Expansion Mode:** The combination of the two values, MSB and LSB, lets you specify a total of 16,384 different banks.

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Prog.Chg]	LSB	[Function] turn on, [Prog.Chg] blink
3	[Number]	(0~127)	[Function] turn on, [Prog.Chg] blink
4	[Enter]	(0~127) blink once → MSB	[Function] turn on, [Prog.Chg] blink
5	[Number]	(0~127)	[Function] turn on, [Prog.Chg] blink
6	[Enter]	(0~127) blink once → A.25	[Function] turn off, [Prog.Chg] turn off

9) **Preset Load/Save:** This button lets you access the preset.

**-Load Mode**

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Preset L/S]	PLD	[Preset L/S] blink
2	[Number]	(0~9)	[Preset L/S] blink
3	[Enter]	(0~9) blink once → A.25	[Preset L/S] turn off

**-Save Mode**

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Function]	SEL	[Function] blink
2	[Preset L/S]	PSV	[Function] turn on, [Preset L/S] blink
3	[Number]	(5~9)	[Function] turn on, [Preset L/S] blink
4	[Enter]	(5~9) blink once → A.25	[Function] turn off [Preset L/S] turn off



10) **ESC:** When you press [ESC] key, all setting goes back to previous setting.

11) **Group 1/2:** The preset bank selector. (Group 1: 1~8, Group 2: 9~16)

Steps	Operating	LED display	Function key's light
0		A.25 (Status: Group 1)	
1	[Group 1/2]	A.25 (Status: Group 2)	[Group 1/2] turn on
2	[Group 1/2]	A.25 (Status: Group 1)	[Group 1/2] turn off

12) **Octave Selectors:** The [Octave Selectors] allows you to set octave of your keyboard.

-[Oct/-]

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Oct/-]	-12	[Oct/-] turn on
2	[Oct/-]	-24	[Oct/-] blink
3	[Oct/-]	-36	[Oct/-] blink [Oct/+] turn on

-[Oct/+]

Steps	Operating	LED display	Function key's light
0		A.25	
1	[Oct/+]	+12	[Oct/+] turn on
2	[Oct/+]	+24	[Oct/+] blink
3	[Oct/+]	+36	[Oct/+] blink [Oct/-] turn on

- **[Octave selectors reset]:** Press the [Oct/-] and [Oct/+] key at the same time.

### 13) DEC/-, INC/+, Data Wheel

**-Number input device:** You can increase or decrease value of parameter by 1.

When [DEC/-]'s LED and [INC/+]'s LED are turned on, [Data Wheel] has equal function.

**-[DATA Wheel] assignment:** You can assign MIDI messages to [DATA Wheel].

Steps	Operating	LED display	Function key's light
0		A.25	[DEC/-], [INC/+] turn on
1	[Function]	SEL	[DEC/-], [INC/+] turn on [Function] blink
2	[Ctrl. Assign]	Con	[DEC/-], [INC/+] turn on [Function] blink
3	[DATA Wheel]	Assigned controller number (0~127, Default: 11)	[DEC/-], [INC/+] turn off [Function] blink
4	[Number]	New assigned controller number (0~127)	[Function] blink
5	[Enter]	(0~127) blink once → A.25	[Function] turn off

- 14) **HOLD** (*Pressing [ENTER] and [ESC] at the same time*): This is where you can stop sending MIDI messages from all knobs and encoders to your computer. Each knobs and encoders are so sensitive that they respond to little vibration such as pressing keys. This function may useful to prevent unexpected messages by cutting data flow. If [HOLD] function is working, you can find the dot in the corner of the last segment.

## TECHNICAL SPECIFICATIONS

### <Analog Audio>

<b>1. Sample rate supports</b>	44.1, 48, 88.2, 96 kHz	
<b>2. Analog Line Input</b>	1) Input Type	Line input 1,2
	2) Connector Type	1/4" TS Phone jack
	3) Peak level	0dBFS @ +6dBV
	4) Programmable gain	-64dB ~ +24dB (0.5dB step size)
	5) Impedance	About 10K Ohm
<b>3. MIC Input</b>	1) Input Type	MIC input for dynamic microphone
	2) Connector Type	1/4" TRS Phone jack
	3) Preamp Gain	+60dB (TBD)
	4) Peak Level	0dBFS @ 20mV
	5) Programmable gain	-64dB ~ +24dB(0.5dB step size)
	6) Impedance	About 1K Ohm
<b>4. Hi-Z Input</b>	1) Input Type	High Impedance input for instrument
	2) Connector Type	1/4" TS Phone jack
	3) Peak level	0dBFS @ +0dBV
	4) Programmable gain	-64dB ~ +24dB(0.5dB step size)
	5) Impedance	About 1M Ohm
<b>5. Analog Output</b>	1) Output Type	Line Output 12
	2) Connector Type	1/4" TS Phone jack

	3) Peak level	+0dBV @ 0dBFS
	4) Attenuation	-64dB ~ +0dB(0.5dB step size)
	5) Impedance	Less than 30 Ohm
<b>6. Headphone Output</b>	1) Output Type	Headphone amplifier
	2) Connector Type	1/4" TRS(stereo) Phone jack
	3) Load Impedance Range	32-300 ohm (for the best performance)
	4) Output Power	60mW @ THD<0.1% ; Vpp = 3.5V

<Digital Audio>

<b>1. Sample rate supports</b>	44.1, 48, 88.2, 96 kHz	
<b>2. A/D Converter</b>	1) SNR	102dBA(0dB @ fs=48kHz)
	2) DR	102dBA
	3) THD	- 95dB(1kHz, -1dBFS)
	4) Interchannel Isolation	90dB
<b>3. D/A Converter</b>	1) SNR	108dBA(0dB @ fs=48kHz)
	2) DR	108dBA
	3) THD	-97dB(1kHz, 0dBFS)
	4) Interchannel Isolation	100dB

<Interface>

<b>1. USB</b>	1) USB Port	USB2.0 format
<b>2. MIDI</b>	1) MIDI in and MIDI out ports(DIN-5pin)	



<b>Keyboard</b>	25 Keys (with velocity)	
<b>Display</b>	7 segments, 3 characters (LED)	
<b>Power Supply</b>	9v 300mA (DC Adaptor) DC adaptor or USB Bus Power	
<b>Size (W) x (D) x (H)</b>	16.93" x 10.04" x 0.28"	430mm x 255mm x 85mm
<b>Weight</b>	6.65lbs	3.02kg

## END USER WARRANTY

### Trademarks

Windows is a trademark of Microsoft Corporation. Other product and brand names are trademarks or registered trademarks of their respective companies.

### End User Warranty

SIMS Corp. warrants this product, under normal use, to be free of defects in materials and workmanship for a period of One(1) year from date of purchase, so long as: the product is owned by the original purchaser, with proof of purchase from an authorized SIMS Corp. dealer. This warranty explicitly excludes power supplies and included cables which may become defective as a result of normal wear and tear.

In the event that SIMS Corp. receives, from an original purchaser and within the warranty coverage period, written notice of defects in materials or workmanship, SIMS Corp. will either replace the product, repair the product, or refund the purchase at its option. To obtain warranty service, the original purchaser or his authorized dealer must fill the support contact form at [www.jammate.net](http://www.jammate.net). In the event repair is required, shipment to and from SIMS Corp. and possible handling charges shall be borne by the purchaser. SIMS Corp. will not accept returns without prepaid shipments. In the event that repair is required, a Return Authorization Number must be obtained from SIMS Corp. After this number is obtained, the unit should be shipped back to SIMS Corp. in a protective package with a description of the problem and the Return Authorization Number clearly written on the package. All such returns must be shipped to SIMS Corp. headquarters in Seoul, Korea.

In the event that SIMS Corp. determines that the product requires repair because of user misuse or regular wear, it will assess a fair repair or replacement fee. The customer will have the option to pay this fee and have the unit repaired and returned, or not pay this fee and have the unit returned and un-repaired.

The remedy for breach of this warranty shall not include any other damages. SIMS Corp. will not be liable for consequential, special, indirect, or similar damages or claims including loss of profit or any other commercial damage, even if its agents have been advised of the possibility of such damages, and in no event will SIMS Corp.' liability for any damages to the purchaser or any other person exceed the price paid for the product., regardless of any form of the claim. SIMS Corp. specifically disclaims all other warranties, expressed or implied. Specifically, SIMS Corp. makes no warranty that the product is fit for any particular purpose.

### **The FCC and CE Regulation Warning**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Caution: Any changes or modifications in construction of this device with are not expressly approved by the party responsible for compliance, could void the user's authority to operate equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. If necessary, consult an experienced radio/television technician for additional suggestions.

### **Correspondence**

For technical support inquiries, contact your nearest dealer, local SIMS Corp. distributor or SIMS Corp. directly at:

#### **SIMS Corp.**

RAON Bldg. 9F, 92-8, Wonhyoro 2-ga, Yongsan-gu,

Seoul, KOREA, 140-847

[www.jammate.net](http://www.jammate.net)

[www.simsaudio.com](http://www.simsaudio.com)

All features and specifications subject to change without notice.

Parts of this manual are continually being updated.

Please check our web site [www.jammate.net](http://www.jammate.net) occasionally for the most recent updated information.



## APPENDIX A – MIDI Controller Information

STANDARD CONTROLLER NUMBERS		
00 Bank Select	22 Controller 22	44 Controller 44
01 Modulation	23 Controller 23	45 Controller 45
02 Breath Control	24 Controller 24	46 Controller 46
03 Controller 3	25 Controller 25	47 Controller 47
04 Foot Control	26 Controller 26	48 Gen Purpose 1 LSB
05 Porta Time	27 Controller 27	49 Gen Purpose 2 LSB
06 Data Entry	28 Controller 28	50 Gen Purpose 3 LSB
07 Channel Volume	29 Controller 29	51 Gen Purpose 4 LSB
08 Balance	30 Controller 30	52 Controller 52
09 Controller 9	31 Controller 31	53 Controller 53
10 Pan	32 Bank Select LSB	54 Controller 54
11 Expression	33 Modulation LSB	55 Controller 55
12 Effects Controller 1	34 Breath Control LSB	56 Controller 56
13 Effects Controller 2	35 Controller 35	57 Controller 57
14 Controller 14	36 Foot Control LSB	58 Controller 58
15 Controller 15	37 Porta Time LSB	59 Controller 59
16 Gen Purpose 1	38 Data Entry LSB	60 Controller 60
17 Gen Purpose 2	39 Channel Volume LSB	61 Controller 61
18 Gen Purpose 3	40 Balance LSB	62 Controller 62
19 Gen Purpose 4	41 Controller 41	63 Controller 63
20 Controller 20	42 Pan LSB	
21 Controller 21	43 Expression LSB	

# STANDARD CONTROLLER NUMBERS

64 Sustain Pedal	86 Controller 86	108 Controller 108
65 Portamento	87 Controller 87	109 Controller 109
66 Sostenuto	88 Controller 88	110 Controller 110
67 Soft Pedal	89 Controller 89	111 Controller 111
68 Legato Pedal	90 Controller 90	112 Controller 112
69 Hold 2	91 Reverb Depth	113 Controller 113
70 Sound Variation	92 Tremolo Depth	114 Controller 114
71 Resonance	93 Chorus Depth	115 Controller 115
72 Release Time	94 Celeste (De-tune)	116 Controller 116
73 Attack Time	95 Phaser Depth	117 Controller 117
74 Cutoff Frequency	96 Data Increment	118 Controller 118
75 Controller 75	97 Data Decrement	119 Controller 119
76 Controller 76	98 Non-Reg Param LSB	120 All Sound off
77 Controller 77	99 Non-Reg Param MSB	121 Reset all Controllers
78 Controller 78	100 Reg Param LSB	122 Local Control
79 Controller 79	101 Reg Param MSB	123 All Notes Off
80 Gen Purpose 5	102 Controller 102	124 Omni Off
81 Gen Purpose 6	103 Controller 103	125 Omni On
82 Gen Purpose 7	104 Controller 104	126 Mono On (Poly Off)
83 Gen Purpose 8	105 Controller 105	127 Poly On (Mono Off)
84 Portamento Control	106 Controller 106	
85 Controller 85	107 Controller 107	

## APPENDIX B – Preset Tables

\* 4 presets optimized for bundled demo software and 1 useful preset (0~4)

\* 5 fully-editable internal user banks (5~9)

\* When you use the preset2 and preset3, you must load automation file for NI FM8 and NI Battery 3 in Bundled CD.

**Preset 0 (Default)-GM Mixer 1-8 (Group 1)**

Knob	1	2	3	4	5	6	7	8
Channel	1	2	3	4	5	6	7	8
Controller	10	10	10	10	10	10	10	10
Function	Pan	Pan	Pan	Pan	Pan	Pan	Pan	Pan

Encoder	1	2	3	4	5	6	7	8
Channel	1	2	3	4	5	6	7	8
Controller	7	7	7	7	7	7	7	7
Function	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume

**GM Mixer 9-16(Group 2)**

Knob	9	10	11	12	13	14	15	16
Channel	9	10	11	12	13	14	15	16
Controller	10	10	10	10	10	10	10	10
Function	Pan	Pan	Pan	Pan	Pan	Pan	Pan	Pan

Encoder	9	10	11	12	13	14	15	16
Channel	9	10	11	12	13	14	15	16
Controller	7	7	7	7	7	7	7	7
Function	Volume	Volume	Volume	Volume	Volume	Volume	Volume	Volume

**Preset 1 – NI Pro53 (Group 1)**

Knob	1	2	3	4	5	6	7	8
Channel	1	1	1	1	1	1	1	1
Controller	88	40	50	51	20	21	26	34
Function	Master Tune	Oscillator A Frequency	Oscillator B Frequency	Oscillator B Freq Fine	PolyMod Source Filt Env	PolyMod Source Osc B	LFO Frequency	Wheel Mod LFO-Noise Mix

Encoder	1	2	3	4	5	6	7	8
Channel	1	1	1	1	1	1	1	1
Controller	7	45	46	47	80	81	82	83
Function	Master Volume	Mixer Oscillator A	Mixer Oscillator B	Mixer Noise	Amplifier Attack	Amplifier Decay	Amplifier Sustain	Amplifier Release

**NI Pro53 (Group 2)**

Knob	9	10	11	12	13	14	15	16
Channel	1	1	1	1	1	1	1	1
Controller	116	105	106	107	108	110	111	112
Function	Effect Wet	Delay Effect Time	Delay Effect Spread	Delay Effect Depth	Delay Effect Rate	Delay Effect Feedback	Delay Effect Low Cut	Delay Effect High Cut

Encoder	9	10	11	12	13	14	15	16
Channel	1	1	1	1	1	1	1	1
Controller	70	71	72	73	75	76	77	78
Function	Filter Cutoff	Filter Resonance	Filter Envelope Amount	Filter Keyboard Follow	Filter Attack	Filter Decay	Filter Sustain	Filter Release

#### Preset 2 – NI FM8 (Group 1)

Knob	1	2	3	4	5	6	7	8
Channel	1	1	1	1	1	1	1	1
Controller	10	90	102	103	104	105	106	107
Function	Output Stereo Width	Effects Amount TR	Arp.. BPM	Arp. Tempo	Arp. Note Length	Arp. Shuffle	Arp. Velocity	Arp. Accent

Encoder	1	2	3	4	5	6	7	8
Channel	1	1	1	1	1	1	1	1
Controller	7	8	14	15	3	9	110	111
Function	Master Volume	Output Volume	Output Velocity	LFO Rate	Master Tune	Pitch Transpose	Morph X	Morph Y

#### NI FM8 (Group 2)

Knob	9	10	11	12	13	14	15	16
Channel	1	1	1	1	1	1	1	1
Controller	16	17	18	19	20	21	22	23
Function	LFO Vibrato	LFO Timbre	LFO Tremolo	Timbre Harmonic	Timbre Detune	Timbre Brightness	Timbre Env. Amount	Timbre Velocity Sens

Encoder	9	10	11	12	13	14	15	16
Channel	1	1	1	1	1	1	1	1
Controller	24	25	26	27	28	29	30	31
Function	Timbre Envelope Attack	Timbre Envelope Decay	Timbre Envelope Sustain	Timbre Envelope Release	Volume Envelope Attack	Volume Envelope Decay	Volume Envelope Sustain	Volume Envelope Release

**Preset 3 – NI Battery 3 (Group 1)**

<b>Knob</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Channel</b>	1	1	1	1	1	1	1	1
<b>Controller</b>	20	21	22	23	24	25	26	27
<b>Function</b>	Cell 1 Pan Position	Cell 2 Pan Position	Cell 3 Pan Position	Cell 4 Pan Position	Cell 5 Pan Position	Cell 6 Pan Position	Cell 7 Pan Position	Cell 8 Pan Position

<b>Encoder</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>Channel</b>	1	1	1	1	1	1	1	1
<b>Controller</b>	52	53	54	55	56	57	58	59
<b>Function</b>	Cell 1 Volume	Cell 2 Volume	Cell 3 Volume	Cell 4 Volume	Cell 5 Volume	Cell 6 Volume	Cell 7 Volume	Cell 8 Volume

**NI Battery 3 (Group 2)**

<b>Knob</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
<b>Channel</b>	1	1	1	1	1	1	1	1
<b>Controller</b>	102	104	106	108	110	112	114	116
<b>Function</b>	Cell 9 Pan Position	Cell 10 Pan Position	Cell 11 Pan Position	Cell 12 Pan Position	Cell 13 Pan Position	Cell 14 Pan Position	Cell 15 Pan Position	Cell 16 Pan Position

<b>Encoder</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>	<b>15</b>	<b>16</b>
<b>Channel</b>	1	1	1	1	1	1	1	1
<b>Controller</b>	103	105	107	109	111	113	115	117
<b>Function</b>	Cell 9 Volume	Cell 10 Volume	Cell 11 Volume	Cell 12 Volume	Cell 13 Volume	Cell 14 Volume	Cell 15 Volume	Cell 16 Volume



**Preset 4 – NI B4II (Group 1)**

Knob	1	2	3	4	5	6	7	8
Channel	1	1	1	1	1	1	1	1
Controller	7	10	78	79	73	74	75	77
Function	Volume	Pan	Bass	Treble	Vibrato Mix	Vibrato Depth	Key Click	Leakage

Encoder	1	2	3	4	5	6	7	8
Channel	1	1	1	1	1	1	1	1
Controller	21	22	23	24	25	26	27	28
Function	Lower Drawbar 16	Lower Drawbar 5-1/3	Lower Drawbar 8	Lower Drawbar 4	Lower Drawbar 2-2/3	Lower Drawbar 2	Lower Drawbar 1-3/5	Lower Drawbar 1-1/3

**NI B4II (Group 2)**

Knob	9	10	11	12	13	14	15	16
Channel	1	1	1	1	1	1	1	1
Controller	33	34	35	36	37	38	84	76
Function	Pedal Drawbar 16	Pedal Drawbar 5-1/3	Pedal Drawbar 8	Pedal Drawbar 4	Pedal Drawbar 2-2/3	Pedal Drawbar 2	Reverb Wet	Drive

Encoder	9	10	11	12	13	14	15	16
Channel	1	1	1	1	1	1	1	1
Controller	12	13	14	15	16	17	18	19
Function	Upper Drawbar 16	Upper Drawbar 5-1/3	Upper Drawbar 8	Upper Drawbar 4	Upper Drawbar 2-2/3	Upper Drawbar 2	Upper Drawbar 1-3/5	Upper Drawbar 1-1/3

