VIRTUAL DJ

**AUDIO & VIDEO MIXING
DJ SOFTWARE**

Numark
NS6

atomix
PRODUCTIONS
SOUND TECHNOLOGY PROVIDER

Table of Contents

INSTALLATION

Firmware & Drivers

Windows & Mac
Depending on your Operating system, install the necessary drivers for the unit from
http://www.numark.com/product/ns6

VirtualDJ 8 Setup

Download and install VirtualDJ 8 from
http://www.virtualdj.com/download/index.html
(in case you have not done already)

Once VirtualDJ 8 is launched, a Login Window
will appear. **Login with your virtualdj.com**
(Google or Microsoft) **account's credentials**.

You can easily create one at
http://www.virtualdj.com/users/register.html

A **Pro Infinity**, a **PLUS or a Subscription
License** is required to use the Numark NS6
Without any of the above Licenses, the
controller will operate for 10 minutes each time
you restart VirtualDJ.
http://www.virtualdj.com/buy/index.html

A detection window will appear next asking to
use or not the **pre-defined audio setup** with
the built-in sound card of the NS6. You can
still change that from Settings->AUDIO tab.

It is suggested to use the 4 Decks skin layout
from the top section of the VirtualDJ 8 default
GUI, in order to get a 4 decks GUI view.

The unit is now **ready** to operate.
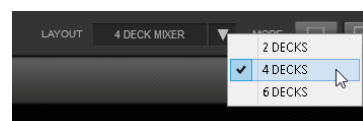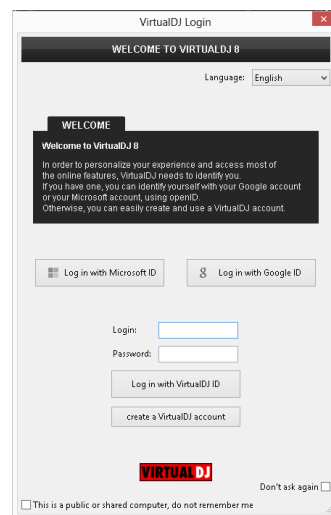
Advanced Setup

MIDI Operation

The unit should be visible in the CONTROLLERS tab of Config and the "**factory default**" available/selected from the Mappings drop-down list.

The factory default Mapping offers the functions described in this Manual, however those can be adjusted to your needs via VDJ Script actions.

Find more details at
http://www.virtualdj.com/wiki/VDJscript.html
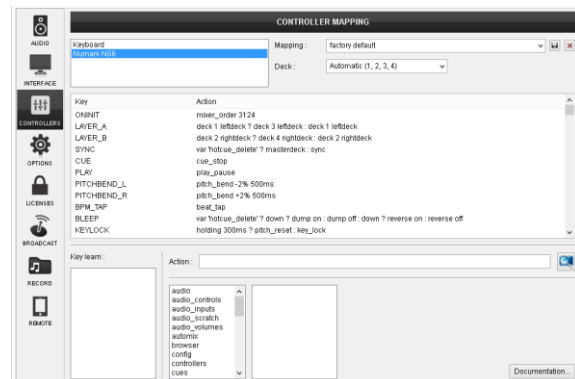
AUDIO Setup

The unit has a **pre-defined** Audio setup and a **special button** in the AUDIO tab of Config to provide that. Alternative Audio setups can be applied in the same window (see Advanced Audio Setup).
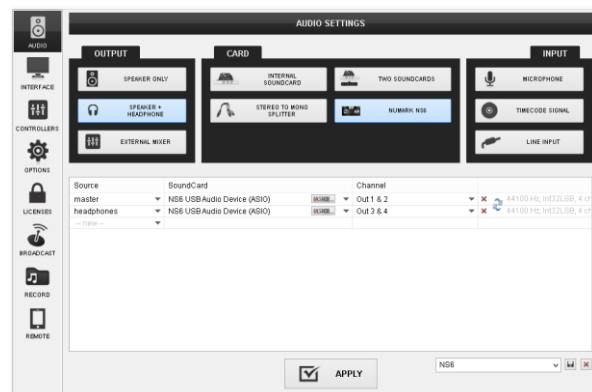
Please read the manuals offered for the unit for further connections/capabilities and setups at http://www.numark.com

For further software settings please refer to the User Guides of VirtualDJ 8.
http://www.virtualdj.com/wiki/PDFManuals.html

S. **SHIFT-DELETE.** Press and hold this button to access secondary functions (in red lettering) of other controls on the NS6.

A. Mixer

The mixer of the NS6 offers controls for 4 channels at a 3-1-2-4 layout, and each mixer channel can be assigned to a software or analogue source input.
If a mixer channel is set to LINE Source, the Volume, EQ and Gain faders will not alter the software one (will not control the software mixer deck), however the sound of the software deck will still be routed to Master Output.

1. **CROSSFADER.** Blends audio between the channels assigned to the left and right side of the crossfader.

2. **VOLUME.** Control the Volume of each channel

3. **INPUT SELECTOR**. Set this switch to the desired audio source for each channel
   PC: a track playing on that layer in the software.
   LINE: a device connected to the Line Inputs (or Mic) on NS6's rear panel.

4. **PFL.** Press these buttons to send this channel's pre-fader signal to the Cue Channel for monitoring. When engaged, the button will be lit. By pressing one PFL button at a time, you will cue that channel alone (and deactivate PFL monitoring for the other channels).
   To prelisten to **multiple channels** simultaneously, **press the PFL buttons** for those channels **at the same time**.

5. **EQ BASS.** Adjusts the low (bass) frequencies of the corresponding channel in the software or hardware Input.

6. **EQ MIDDLE.** Adjusts the middle (mid) frequencies of the corresponding channel in the software or hardware Input.

7. **EQ TREBLE.** Adjusts the high (treble) frequencies of the corresponding channel in the software or hardware Input.

8. **GAIN.** Adjusts the audio level (gain) of the corresponding channel in the software or hardware Input.

9. **BOOTH VOLUME.** Adjusts the Booth Output Volume (Hardware operation. Movement will not be visible on the VirtualDJ GUI)

10. **MASTER VOLUME** : Adjusts the Master Output Volume (Hardware operation but movement will be visible on the VirtualDJ GUI)

11. **BEATDIFF BAR.** This meter is an aid for matching the CBG of both decks. When the white center LED is lit, the CBGs of the left and right selected decks are matched. Otherwise, the meter will tend towards the faster deck. The further from center, the greater the difference between the two BPMs.

12. **VU METERS**: Indicate the output volume routed to the Master Output. Note that these VU meter Leds are controlled by the Hardware and will not offer any indication is a different sound card (other than the built one of the NS6) is selected in the Audio configuration of VirtualDJ.

B. Browser & Sampler

13. **BROWSE ENC.** Scrolls through Folders or Files.
If a track is playing at the Prelisten Player, hold **SHIFT** down and then use the Scroll knob to **navigate** through the **pre-listened song**

    BROWSE PUSH. If focus is on the Folders List, sets **focus to the Songs list.** If focus is on the Songs list **loads the selected track** to the first available (free or stopped deck)
    Hold **SHIFT** down and then push the Browse Encoder to **play**/stop the selected track to the **Prelisten Player**.
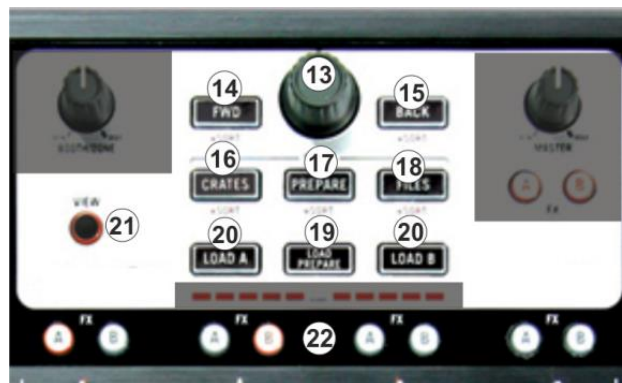
14. **BACK.** Sets focus to the **previous Browser Window.** Hold **SHIFT** down and then press this button to **sort** the Songs List **by Track Number** field.

15. **FWD.** Sets focus to the **next Browser Window.** Hold **SHIFT** down and then press this button to **sort** the Songs List **by Album** field.

16. **CRATES**: Sets **focus on Folders** Window. If focus is on the Folders list, press this button to **expand/collapse sub-folders**.
Press and hold **SHIFT** and then press to **sort** the Songs List **by Title** field**.**

17. **PREPARE.** Press this button to **set focus to the Sideview** window of Browser. If focus is on the SideView already, press this button to **cycle though** the available **views of Sideview** (Automix, Sidelist, Sampler, Karaoke and Clone).
Hold **SHIFT** down and then press this button to **sort** the Songs List **by Artist** field.

18. **FILES. Sets focus to the Songs List** of Browser. Hold **SHIFT** down and then press this button to **sort** the Songs List **by BPM** field.

19. **LOAD PREPARE. Adds** the selected track from the Songs List **to the Automix List** of Sideview. Hold **SHIFT** down and then press this button to **add** the selected song **to the Sidelist** of Sideview.

20. **LOAD A/B.** Press this button to **load** the selected track from the Browser to the left (A) or right (B) assigned deck Hold **SHIFT** down and then press this button, to **unload** the same left or right assigned deck

21. **VIEW.** Press this button to open/close the **SideView** of VirtualDJ 8 Browser. Hold **SHIFT** down and then press this button to **cycle** through the available **center mixer panels** of the Default VirtualDJ GUI (MIXER, VIDEO, SCRATCH and MASTER)

22. **FX A/B.** Use these buttons to **trigger the first 8 Samples** (from left to right) from the selected/loaded Sampler Bank of VirtualDJ. Depending on the selected trigger mode, hold **SHIFT** down and then use the same buttons **to stop** the triggered sample.

C. Deck Controls

23. **PLAY**. Plays / Pauses the track.

24. **CUE**. When the Deck is paused, you can **set a temporary Cue Point** by moving the Platter to place the Audio Pointer at the desired location and then pressing the Cue Button.

During playback, you can press the Cue Button to **return the track to this Cue Point.** (If you did not set a Cue Point, then it will return to the beginning of the track.).

If the Deck is paused, you can press and hold the Cue Button to play the track from the Temporary Cue Point. Releasing the Cue Button will return the track to the temporary Cue Point and pause it. To continue playback without returning to the Temporary Cue Point, press and hold the Cue Button, then press and hold the Play Button, and then release both buttons.

Press and hold **Shift** and then press this button to return to the beginning of the track.

25. **SYNC**. Press this button to automatically match the corresponding Deck's tempo with the opposite Deck's (or the Master Deck's if using a 4 decks Skin) tempo and phase. Press and hold Shift and press this button to set this deck as Master Deck (for 4 decks skins).

26. **HOTCUES (1-5). Assigns a Hot Cue** Point or **returns the track to that Hot Cue Point**. When a Hot Cue Button is unlit, you can assign a Hot Cue Point by pressing it at the desired point in your track. Once it is assigned, the Hot Cue Button will light. To return to that Hot Cue Point, simply press it.
Press and hold **SHIFT** and then press a Hot Cue Button to **delete** its assigned Hot Cue Point.

27. **PITCH BEND.** Press and hold down these buttons to temporary speed up/slow down the song while pressed. When released, the track playback will return to the speed designated by the Pitch Fader

28. **PITCH.** Adjust the track's playback speed (tempo). The white LED next to the fader will light up when the software pitch value is set at 0%. The Red Up and Down Arrow LEDs will lit if the pitch position of the unit and the actual pitch of the software do not match, to indicate the direction you need to move the hardware fader in order to catch the software one.

29. **RANGE.** Press this button to adjust the **range** of the **Pitch** Fader (to ±6%, ±8%, ±10%, ±12%, ±20%, ±25%, ±33%, ±50%, and ±100%).

30. **MASTER TEMPO.** Press this button to "**lock**" the track's pitch to its original **key.** The track's tempo will remain at the speed designated by the Pitch Fader

31. **REVERSE/BLEEP.** Press and hold this button down to play the track in reverse. Once released, the track will resume normal playback from where it would have been if you had never pressed the **Bleep** button (i.e., as if the track had been playing forward the whole time).
Hold **SHIFT** down and then press this button to play the track in **reverse**. The led of this button will blink to indicate the reversed playback.

32. **STRIP SEARCH.** The length of this strip represents the length of the entire track. Place your finger on a point along this sensor to jump to that point in the track (song position).

33. **TAP**. Manually adjust the tempo of the song. Tap this button at the same tempo as the track (for at least 4 times) to help the software detect a different BPM reading (if needed).

34. **DECK SELECT**. Switch Left decks (1 and 3) and Right Decks (2 and 4). The left side of the NS6 will control VirtualDJ decks 1 or 3, and the right side will control VirtualDJ decks 2 or 4.

35. **SCRATCH**. Press this button to set the platter of the NS6 to either **Scratch** (Vinyl mode) **or Bend** (CD mode). On Bend mode, use the outer part of the platter for pitch bending.
Hold **SHIFT** down and then press this button to activate the **Slip mode**. When Slip mode is activated, several actions (scratching, HotCues and loops) will act temporary and the track will resume to the position it would have been if this action was never triggered.

36. **JOG**. **Touch sensitive jogwheel**. Use this wheel to scratch, bend, fast seek through a track or even adjust the Loop In, Loop Out and Loop position depending on the assigned mode..

37. **SKIP**. Press and keep this button down and then use the jogwheel to navigate through the loaded track. The track will move forward/backwards by 1 beat so the track will remain at sync.

38. **BEAT GRID**. These buttons offer the ability to manually adjust the CBG of the track. Similar operations are offered at the BPM Editor of VirtualDJ 8.

    SLIP/ADJUST. Press and hold this button and then move the JOGWHEEL to shift the position of the CGB of the track.
    Hold SHIFT down and then press this button and use the JOGWHEEL to adjust the width of the CGB of the track (equal to adjust the BPM of the track)

    SET/CLEAR. Press this button to set the current position of the track as the First Beat (BeatGrid Anchor) in order to easier adjust the Beatgrid width

    Note. Right-click on the track in the Browser and choose to re-analyze in order your BeatGrid adjustments to return to the default ones (Cancel)

D. Loops

39. **MODE.** Use this button to select how the IN, OUT, SELECT and RELOOP buttons will behave. If the **MANUAL mode** is selected the Led of this button will be lit white and if the **AUTO LOOP mode** is selected will be lit red.

40. **IN.**
    Manual mode (white Led)
    Use this button to **set a Loop In** (Entry) point for manual loop. If a loop is triggered, press this button to set the Jogwheel to Loop In mode (led will blink) and use the jogwheel to fine adjust the Loop In position.

    Auto mode (red led)
    Use this button to **trigger a 1 beat Loop.**

    SHIFT action (in both modes)
    Hold SHIFT down and then press this button down to **trigger a momentary** (as long as the button is pressed) **Loop Roll of 1/8 beat**. Once the button is released, the track will resume to the position it would have been if the Loop Roll was never triggered.

41. **OUT.**
    Manual mode (white led)

Use this button to **set a Loop Out** (Exit) point for manual loop. If a loop is triggered, press this button to set the Jogwheel to Loop Out mode (led will blink) and use the jogwheel to fine adjust the Loop Out position.

Auto mode (red led)
Use this button to **trigger a 2 beats Loop.**

SHIFT action (in both modes)
Hold SHIFT down and then press this button down to **trigger a momentary** (as long as the button is pressed) **Loop Roll of 1/4 beat**. Once the button is released, the track will resume to the position it would have been if the Loop Roll was never triggered.

42. **SELECT.**
Manual mode (white Led)
When a Loop is triggered, use this button to set the Jogwheel to **Loop Shift mode** (led will blink) and use the jogwheel to fine move/shift the Loop through the track.

Auto mode (red led)
Use this button to **trigger a 4 beats Loop.**

SHIFT action (in both modes)
Hold SHIFT down and then press this button down to **trigger a momentary** (as long as the button is pressed) **Loop Roll of 1/2 beat**. Once the button is released, the track will resume to the position it would have been if the Loop Roll was never triggered.

43. **RELOOP.**
Manual mode (white Led)
Use this button to trigger the last triggered Loop (**Reloop**) or jump to the Loop In point if a loop is already triggered.

Auto mode (red led)
Use this button to **trigger a 8 beats Loop.**

SHIFT action (in both modes)
Hold SHIFT down and then press this button down to **trigger a momentary** (as long as the button is pressed) **Loop Roll of 1 beat**. Once the button is released, the track will resume to the position it would have been if the Loop Roll was never triggered.

44. **HALF (/2).** Use this button **half** the size (in beats) of the loop

45. **DOUBLE (x2).** Use this button **double** the size (in beats) of the loop

46. **ON/OFF.** Use this button to **trigger a loop** of the selected size, or **exit a Loop**

47. **SHIFT<.** Use this button to **move** the triggered **loop backwards by 1 beat**

48. **SHIFT>.** Use this button to **move** the triggered **loop forward by 1 beat**

E. Effects

The NS6 offers 2 FX units (A and B) which are assigned to control the Effects on the left assigned deck (FXA), on the right assigned deck (FXB) or the Video Transition and Video Effects on Master (assigned with the MASTER FX A and B buttons)

49. **FXA/FXB button**
   Press this button to **trigger** the selected **Effect** on either the left or right assigned decks.

   If the MASTER **FX A** button is pressed, use the FXA button to **trigger** the selected **Video Transition**

   If the MASTER **FX B** button is pressed, use the FXA button to **trigger** the selected **Video Effect on Master**

50. **FX MIX fader.**
   Use this fader to control the **1st parameter** of the selected Effect..

   If the MASTER **FX A** button is pressed, use the left MIX fader to control the **1st parameter** of the selected **Video Transition**

   If the MASTER **FX B** button is pressed, use the right MIX fader to control the **1st parameter** of the selected **Video Effect on Master**

51. **FX SELECT encoder.**
   Use this encoder to **select an Effect** from the Effect list of VirtualDJ. **Push** the encoder to **open/close the GUI** of the selected Effect in the Browser in order to see and control (via the GUI) more effect parameters.

   If the MASTER **FX A** button is pressed, use the left FX SELECT encoder to **select** a **Video Transition. Push** the encoder to **open/close the GUI** of the selected Video Transition in the Browser in order to see and control (via the GUI) more effect parameters (if available).

   If the MASTER **FX A** button is pressed, use the right FX SELECT encoder to **select** a **Video Effect for Master. Push** the encoder to **open/close the GUI** of the selected **Video Effect** in the Browser in order to see and control (via the GUI) more effect parameters (if available).

52. FX PRM knob.
Use this knob to control the **2nd parameter** of the selected Effect. Hold **SHIFT** down and then use the same knob to control the **3rd parameter** of the selected Effect.

If the MASTER **FX A** button is pressed, use the left FX PRM knob to control the **2nd parameter** of the selected **Video Transition** (if available). Hold **SHIFT** down and then use the same knob to control the **3rd parameter** of the selected **Video Transition** (if available).

If the MASTER **FX B** button is pressed, use the right FX PRM knob to control the **2nd parameter** of the selected **Video Effect on Master** (if available). Hold **SHIFT** down and then use the same knob to control the **3rd parameter** of the selected **Video Effect on Master** (if available).

53. FX MASTER ASSIGN A/B. If FX MASTER A is enabled, the **left FXA** unit of the NS6 will control the **Video Transition**. If FX MASTER B is enabled, the **right FXB** unit of the NS6 will control the **Master Video Effect**.

F. Front Side

54. FADER START. If the switcher is at the ON position, the left or/and the right assigned deck will start playback as soon as the Volume fader of the corresponding mixer channel is moved from the minimum position, or the crossfader is moved to the corresponding side..

55. XFADER CURVE. Adjusts the slope of the crossfader curve. Turn the knob to the left for a smooth fade (mixing) or to the right for a sharp cut (scratching). The center position is a typical setting for club performances.

56. XFADER ASSIGN: Routes the audio playing on the corresponding channel to either side of the crossfader (A or B), or bypasses the crossfader and sends the audio directly to the Program Mix (center, THRU).

57. HEADPHONES BLEND: Turn to mix between Cue and Program in the Headphone channel. When all the way to the left, only channels routed to Cue will be heard. When all the way to the right, only the Program mix will be heard.

58. HEADPHONES SPLIT. When this switch is in the ON position, the headphone audio will be "split" such that all channels sent to Cue are mixed to mono and applied to the left headphone channel and the Program mix is mixed to mono and applied to the

right channel. When the switch is in the OFF position, Cue and Program audio will be "blended" together.

59. HEADPHONES VOLUME. Adjusts the volume level of the headphone output.

60. HEADPHONES SOCKET. Connect your 1/4" or 1/8" headphones to this output for cueing and mix monitoring.

G. Rear Side

61. POWER: Use the included power cable to connect NS6 to a power outlet. While the power is switched off, plug the cable into NS6 first, and then plug the cable into a power outlet. Use the Power Switch to turn the NS6 on and off. Turn on NS6 after all input devices have been connected and before you turn on amplifiers. Turn off amplifiers before you turn off NS6.

62. USB. This USB connection sends and receives audio and control information from a connected computer.

63. MASTER OUTPUT (XLR): Connect this low-impedance XLR output to a PA system or powered monitors. The level of this output is controlled with the Master knob on the top panel.

64. MASTER OUTPUT (RCA): Use standard RCA cables to connect this output to a speaker or amplifier system. The level of this output is controlled by the Master knob on the top panel.

65. BOOTH OUTPUT (RCA): Use standard RCA cables to connect this output to a booth monitoring system. The level of this output is controlled by the Booth knob on the top panel.

66. LINE INPUTS. Connect your audio sources to these inputs. Inputs 1 and 2 can accept both line and phono-level signals. Inputs are directed to the Master Output via the PC/LINE switchers at the top panel of the NS6.

67. MIC INPUT. Connect a 1/4" microphone to this input. Microphone controls are located on the top panel on any channel whose Input Selector is set to Mic

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Advanced Audio Setup

Inputs

The Numark NS6 offers the ability to use the unit as a **stand-alone mixer**.

Assign any Mixer Channel as external Source and route an Analogue Source (CD player, turntable or even a Microphone) to the Master Output of the unit. Simply connect your analogue source to the rear side (Inputs) and set the PC/LINE Switcher of a mixer Channel to LINE position.

Note that if a Switcher is set to LINE, the Mixer Channel will not control the Mixer Channel of VirtualDJ, but the sound of the software deck will not be muted, therefore the corresponding software deck should not be used (played) as both signals will be routed to the Master Output.

Microphone and Line Inputs of the Numark NS6 cannot be routed to the software, therefore **no Timecode (DVS) functionality is available** nor can the Microphone or Line Inputs can be routed and controlled from VirtualDJ.

Recording

The pre-defined Audio configuration of VirtualDJ 8 for the Numark NS6 provides the ability to record your mix without any further adjustments.

However, if you wish to **record** and/or broadcast both the **software mix and the Inputs** (including any Microphone or Line inputs) at the same time, you will need to manually **add a Record Line** to the Audio Setup as per the following image. The stereo input channel of the NS6 audio interface will record (and send to VirtualDJ) whatever comes out from the Master Output.

Useful links

VirtualDJ web-page: http://www.virtualdj.com
VirtualDJ Support Center: http://www.virtualdj.com/contact/index.html
VirtualDJ 8 Operation Guides: http://www.virtualdj.com/wiki/PDFManuals.html

Numark web-page: http://www.numark.com/
Numark Support Center: http://www.numark.com/support

Numark NS6 product page: http://www.numark.com/product/ns6
Numark NS6 Quick Start Guide:
http://www.numark.com/images/product_downloads/ns6___quickstart_guide___v1_01.0.pdf

Hardware Integration Department

VIRTUALDJ

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