Operation Guide

VIRTUAL DJ

AUDIO & VIDEO MIXING
DJ SOFTWARE

Pioneer

DDJ-SX2
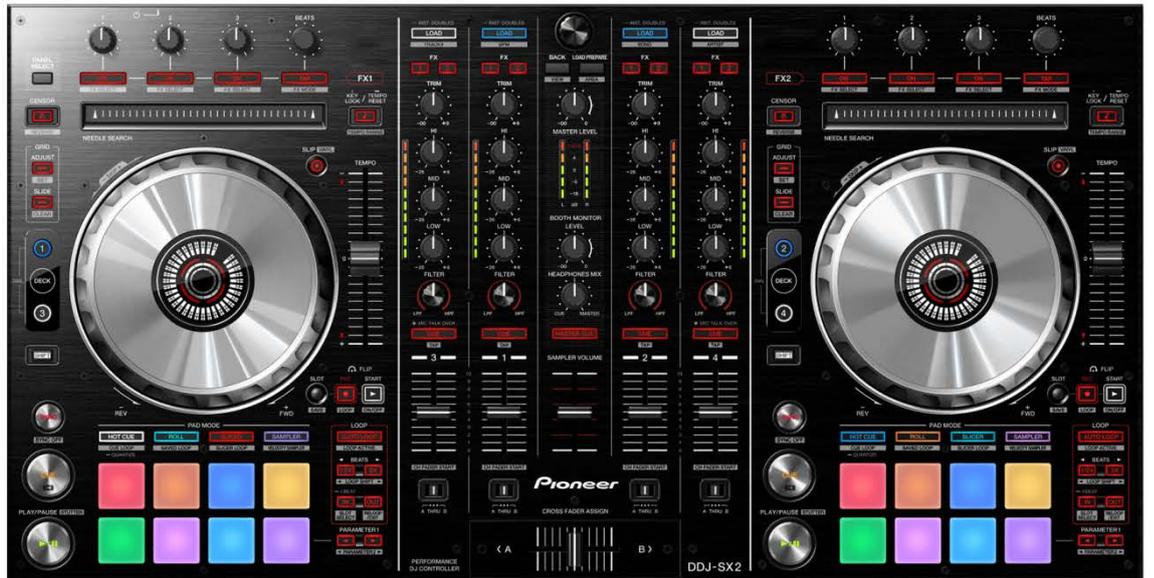
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INSTALLATION

Firmware & Drivers

Firmware: Update the firmware of the unit to the latest version from
http://www.pioneerdj.com/en/support/software/ddj-sx2/#firmware-update

Drivers (for Windows only): Install the latest ASIO drivers from
http://www.pioneerdj.com/en/support/software/ddj-sx2/#drivers
No drivers are required for Mac OSX computers

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 account. A **Pro Infinity, PRO Subscriber** or **PLUS License** is required to fully use the Pioneer DDJ-SX2. 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
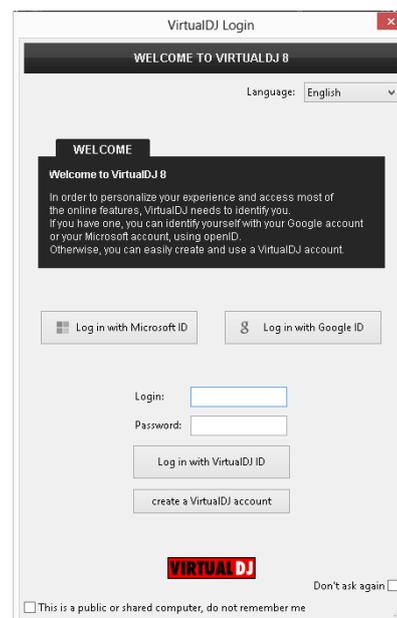
A **detection** window will appear next asking to use or not the **pre-defined audio setup** with the built-in sound card of the DDJ-SX2.
You can still change that from Settings->AUDIO tab.
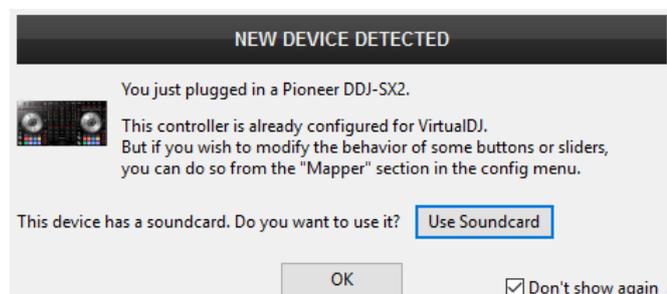
The unit is now **ready** to operate with VirtualDJ.

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
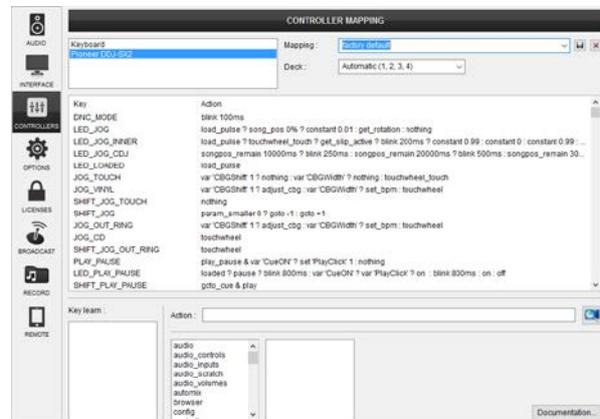
**AUDIO Setup**
The unit has a **pre-defined** Audio setup and a **special button** in the AUDIO tab of Config to provide that.

Please read the manual of DDJ-SX2 for further Audio capabilities-setups.
http://www.pioneerdj.com/en/support/documents/ddj-sx2/
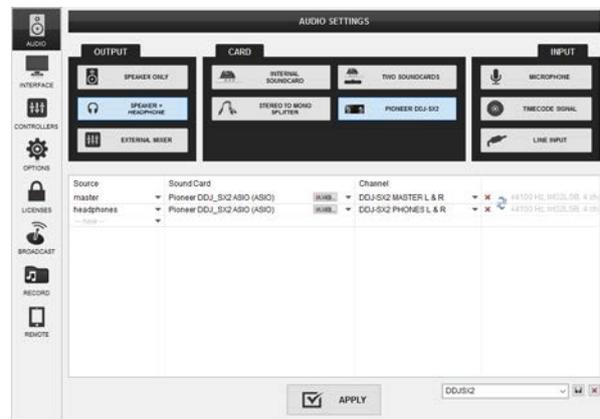
For further software settings please refer to the User Guides of VirtualDJ 8.
http://www.virtualdj.com/wiki/PDFManuals.html

CONTROLLER OVERVIEW

A. MIXER
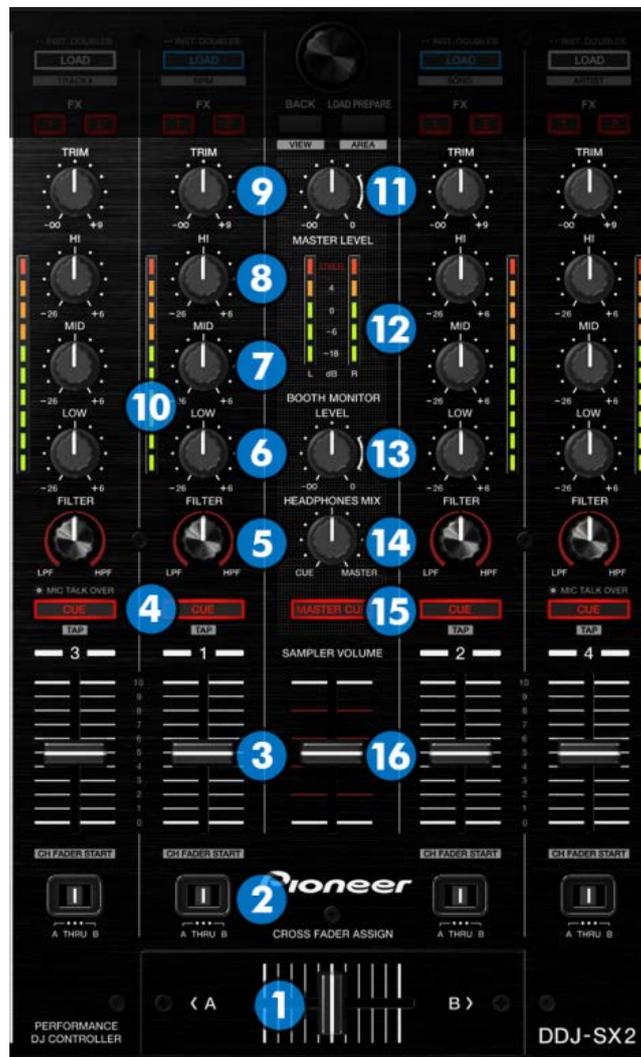
1. **CROSSFADER**: Blends audio between the left and right channels.

2. **CROSSFADER ASSIGN**: Assign each deck on the left or right side of the crossfader, or alternatively bypass the crossfader entirely (thru)

3. **VOLUME**: Alter the sound of each deck. While **SHIFT** is held down, the VOLUME faders will stop the deck at the previously selected Cue point when these reach the minimum level (zero) and will start the deck (synced to the other deck) if those move from the zero position. (**Fader Start**)

4. **PFL**: Press this button to send this channel's pre-fader signal to the Cue Channel for monitoring. When engaged, the button will be lit. Press **SHIFT** and then one of the PFL buttons to **manually tap** the tempo of the loaded track.

5. **FILTER**: Applies a High Pass/Low Pass Filter on the track (middle position is Off position).

6. **EQ-LOW**: Adjust the low (bass) frequencies of the corresponding deck.

7. **EQ-MID**: Adjust the middle (mid) frequencies of the corresponding deck

8. **EQ-HI**: Adjust the high (treble) frequencies of the corresponding deck

9. **TRIM**: Adjusts the audio level (gain) of the corresponding deck. When the "GainSliderIncludesAutoGain" option inside VirtualDj's configuration is set to yes (default) then the normal (park) position is 12 o clock.

10. **PFL VU METERS**: Shows the strength of each channel's pre fader signal.

11. **MASTER VOLUME**. Adjust the level of the Master Output. Hardware operation, not visible on the VirtualDJ GUI.

12. **MASTER VOLUME VU-METERS**: Shows strength of the master output signal.

13. **BOOTH MONITOR LEVEL**: Adjust the level of the Booth Output. Hardware operation, not visible on the VirtualDJ GUI.

14. **HEADPHONES MIXING.** Adjust how the Channels and the Master Output blend at the Headphones Channel. Hardware operation, but movement visible on the VirtualDJ GUI.

15. **MASTER PFL**: Press this button to send the Master Output to the Headphones channel (Hardware operation)

16. **SAMPLER VOLUME**: Adjusts the Master Volume of the Sampler

B. DECKS

17. **PLAY/PAUSE**: Plays / Pauses the track. Press and hold Shift and then press this button to "stutter-play" the track from the last set Cue Point.

18. **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.

19. **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).

20. **SHIFT**: Press and hold this button to access secondary functions (in white box) of other controls on the DDJ-SX2.

21. **DECK SELECT**: Switch Left decks (1 and 3) and Right Decks (2 and 4).

22. **GRID SLIDE**: Press and hold this button and then move the JOGWHEEL to shift the position of the CGB of the track. Hold down SHIFT and press this button to reanalyze the BPM of the track and thus clear any changes you may have made before.

23. **GRID ADJUST**: Press and hold this button and then move the JOGWHEEL to adjust the width of the CGB of the track (equal to adjust the BPM of the track). Hold down SHIFT and press this button to set the current position of the track as the First Beat.

24. **CENSOR**: Press and hold this button to play the track backwards. On release the track will continue from the position it would have been if the button was never pressed. If SHIFT is held down, press this button (momentarily) to play the track backwards. Press again to play forward.

25. **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). Please note that while a deck is playing "on air" the strip search will not function in order to prevent sudden accidental jumps that may occur if you touch the stripe by accident while you operate other controls. If you want to jump on a new position while the track is "on air" please hold down SHIFT button first and then touch the strip to bypass security.

26. **KEYLOCK**: 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. Press and hold the button for more than 1 second to smoothly reset the Pitch of the track to zero (original tempo). Hold SHIFT and then press this button to cycle through the available pitch range values.

27. **SLIP**: Enables Slip Mode. Several software functions (such as Jogwheel movements, HotCues and Loops) will apply temporarily on the track, and the track will return to the position it would have been if those functions were not triggered. Hold SHIFT and press this button to toggle between the JOGWHEEL between Scratch and Pitch Bend modes.

28. **JOGWHEEL**: Touch sensitive platter for scratching (vinyl mode), bending (CD Mode) or Grid adjustment. The white inner leds will rotate according to the software

jogwheel position and they will also blink at the last 30 seconds of a track. The red leds will blink if you scratch while Slip Mode is active or will turn on when you touch the touch-sensitive surface.

29. **PITCH**: Controls the track's playback tempo. The Up and Down Arrow LEDs will turn on if the pitch position of the unit and the actual pitch of the software do not match. While one of these leds is turned on, the pitch slider of the DDJ-SX2 will not control the pitch of the deck until it meets the software value (soft take-over).

30. **FLIP BUTTONS:** These buttons do not perform any predefined action in VirtualDj. You can use them to map any action you want.

31. **AUTOLOOP**: Sets an Auto Loop. Hold SHIFT and press the same button to activate a Saved Loop.

32. **HALF/DOUBLE**: Halves/Doubles the size of the Loop. Hold SHIFT and press the 1/2X or 2X buttons to move the triggered loop forward or backwards (step is relative to the length of the loop).

33. **IN/OUT**: Use these buttons to set a Loop In and a Loop Out point (for manual looping).
If a loop is active press the IN button to use the jog in order to fine tune the loop-in point. Press IN again to restore the jog back to its original operation. During the time that the jog can be used to adjust the loop-in point, the corresponding led will blink to notify you of the change.
If a loop is active press the OUT button to use the jog in order to fine tune the loop-out point. Press OUT again to restore the jog back to its original operation. During the time that the jog can be used to adjust the loop-out point, the corresponding led will blink to notify you of the change.

34. **PARAMETER**: Offer various operations, depending on the PADs Mode (see PADS)

35. **PAD MODE SELECT**: Controls the PADs mode (see PADS)

36. **PADS**: Offer various operations, depending on the PADs Mode (see PADS)

C. EFFECTS

The Left FX section (**FX1**) controls by default the effects of the **Left** selected software deck (1 or 3) and the Right FX section (**FX2**) controls by default the effects of the **Right** selected software deck (2 or 4) respectively. Use the FX ASSIGN (45) buttons to assign a different software deck to each one of the FX1 and FX2.
Each one of the FX unit offers 2 modes. The **Single Effects mode** offers one effect slot but more parameters controls per effect. The **Multi Effects mode** offers 3 effect slots (to trigger

more than 1 effect at the same time – chained effects). The selection between those 2 modes is done by pressing the **TAP** while **SHIFT** is held.
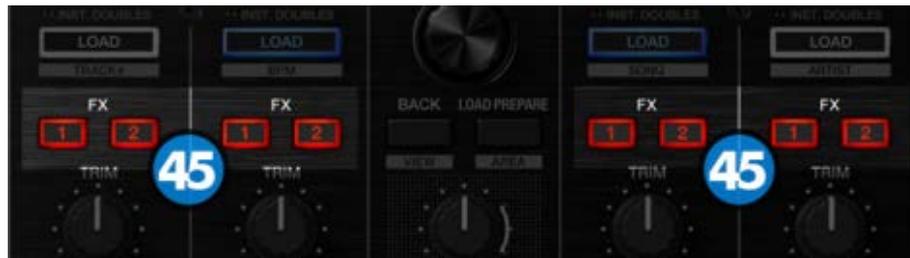
37. **FX1 knob**. In **Single FX mode**, controls the 1st effect parameter of the selected effect. Hold SHIFT to control the 4th effect parameter of the selected effect (if available). The adjustment is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons.
In **Multi FX mode**, controls the 1st effect parameter of the selected effect of slot 1. Hold SHIFT to control the 2nd effect parameter of the selected effect of slot 1. The adjustment is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons.

38. **FX2 knob**. In **Single FX mode**, controls the 2nd effect parameter of the selected effect. Hold SHIFT to control the 5th effect parameter of the selected effect (if available). The adjustment is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons.
In **Multi FX mode**, controls the 1st effect parameter of the selected effect of slot 2. Hold SHIFT to control the 2nd effect parameter of the selected effect of slot 2. The adjustment is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons

39. **FX3 knob**. In **Single FX mode**, controls the 3rd effect parameter of the selected effect. Hold SHIFT to control the 6th effect parameter of the selected effect (if available). The adjustment is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons.
In **Multi FX mode**, controls the 1st effect parameter of the selected effect of slot 3. Hold SHIFT to control the 2nd effect parameter of the selected effect of slot 3. The adjustment is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons

40. **BEATS**. Use this knob to move the track one beat forward/backward. Press SHIFT and then use this knob to move the track 4 beats forward/backwards. The adjustment is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons

41. **FX1 ON**. In **Single FX mode**, press this button to enable/disable the selected effect. The effect is applying to deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons. Press SHIFT and then this button, to enable/disable the 1st effect button of the selected effect (if available).

   In **Multi FX mode**, press this button to enable/disable the selected effect of slot 1. The effect is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons. Press SHIFT and then this button, to select the next available effect for slot 1.

42. **FX2 ON**. In **Single FX mode**, press this button to select the previous effect from VirtualDJ Effects list. Press SHIFT and then this button, to enable/disable the 2nd effect button of the selected effect (if available).

   In **Multi FX mode**, press this button to enable/disable the selected effect of slot 2. The effect is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons. Press SHIFT and then this button, to select the next available effect for slot 2.

43. **FX3 ON**. In **Single FX mode**, press this button to select the next effect from VirtualDJ Effects list. Press SHIFT and then this button, to enable/disable the 3rd effect button of the selected effect (if available).

   In **Multi FX mode**, press this button to enable/disable the selected effect of slot 3. The effect is applying to either deck 1, deck 2, deck 3, deck 4 or left/right deck, depending on the FX (45) Assign buttons. Press SHIFT and then this button, to select the next available effect for slot 3.

44. **TAP**. Press this button to manually tap the tempo of the track. Press SHIFT and then this button to toggle between the **Single and Multi Effect modes**.

45. **FX ASSIGN**. Define the Channels that will be controlled by the FX1 and FX2 Deck units.

D. PADS

HotCues

Press the **HOT CUE** mode button to set the PADs to **Hot Cue** mode.

Each one of the 8 pad assigns a Hot Cue Point or jumps the track to that Hot Cue Point (if assigned).
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 on.

The PARAMETER (46) buttons jump the song to the previous/next assigned HotCue point.

Hold **SHIFT** and then press a pad to delete its assigned Hot Cue Point. Leds will turn red if a HotCue point exists.

Hold **SHIFT** and press the PARAMETER (46) buttons to change the HotCue start mode behavior between Stutter and Play. On Stutter mode, when the track is paused, the

HotCues act temporary (preview the track while pressed). On Play mode, when a track is paused, the HotCues also start the playback of the deck.

Roll

Press the **ROLL** mode button to set the PADs to **Loop Roll FX** mode.

On Roll mode the Pads trigger a momentary **Loop Roll FX.**
The size of the Loop Roll varies (see image).

Hold **SHIFT** and then press one of the pads to trigger a Loop instead of a Roll. Three banks of loop sizes are offered (see image). Hold **SHIFT** and press the PARAMETER (46) buttons to scroll between the different sizes of loops

Slicer & Slicer Loop

Press the **SLICER** mode button to set the PADs to **Loop Roll FX** mode.

The eight pads represent eight sequential beats - "Slices" - in the Beat Grid. The currently playing Slice is colored blue while the rest pads are colored red. The blue light will "move through the pads" as it progresses through each of eight Slices phrase. Press a pad to repeat that Slice or hold it down if you want to keep looping it.

The pads color will turn green. Once the Pad is released the track will continue to play from the position it would have been if the pad was never pressed.

Press **SHIFT** and then the **SLICER** mode button to set the PADs to **SLICER LOOP** mode. The Slicer button will start blinking to indicate this mode.
In this mode the Slice is memorized on first press as the track continues to play. (HOLD mode). Press SHIFT and SLICER button if you want to reset the memory.
Use the PARAMETER (46) buttons to adjust the **length of the Loop** applied to the slice.
Press **SHIFT** and then the PARAMETER (46) buttons to adjust **the step of the Slices**

Sampler & Velocity Sampler

Press the **SAMPLER** button to set the PADs to **Sampler mode.**

Each one of the pads triggers a sample from the selected Sampler Bank of VirtualDJ. If a bank has less than 9 samples, both sides will control the same samples. If a bank has more than 8 samples, the left side will control samples 1 to 8 and the right side samples 9 to 16.
Press the pads to **trigger a sample.**

Hold **SHIFT** and press a pad if you want to stop the selected sample.
Press **SHIFT** and then the **SAMPLER** Pad mode button to set the PADs to **Sampler Velocity mode**. In this mode the Pads will additionally alter the Volume of the triggered Sample depending on the pressure (velocity).
Use the PARAMETER (**46**) buttons to select the **Sampler Bank** (previous/next).
Press **SHIFT** and then the PARAMETER (**46**) buttons to select the **Trigger Pad mode** (on/off, hold, stutter, unmute)

CueLoop

Press **SHIFT** and then the **HOT CUE** mode button to set the PADs to **Cue Loop** mode.
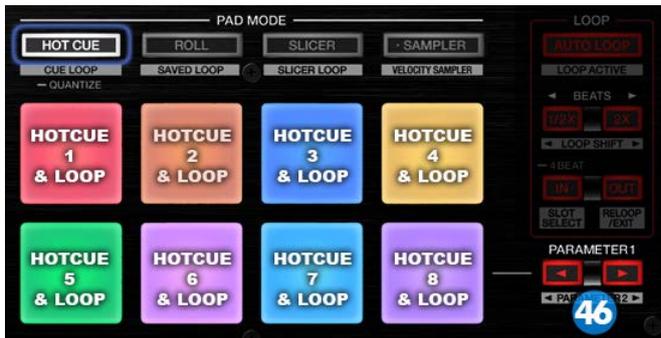
Each one of the 8 pad assigns a Hot Cue Point or returns the track to that Hot Cue Point, but in both cases, it also triggers a Loop at that point. The Loop length can be adjusted by the LOOP 1/2X and 2X buttons.

The PARAMETER (46) buttons jump the song to the previous/next assigned HotCue point.

Hold **SHIFT** and then press a pad to delete its assigned Hot Cue Point.

Hold **SHIFT** and press the PARAMETER (46) buttons to change the HotCue start mode behavior between Stutter and Play. On Stutter mode, when the track is paused, the HotCues act temporary (preview the track while pressed). On Play mode, when a track is paused, the HotCues also start the playback of the deck.

Saved Loops

Press **SHIFT** and then the **ROLL** mode button to set the PADs to **Saved Loops** mode.

Each one of the 8 pad offers a slot to save and recall loops.
In order to save a loop please set the deck in a loop by using the AUTOLOOP (31) or LOOP IN/OUT (33) buttons and press a pad once to save it

in the corresponding slot (the pad's color will turn yellow).

In order to recall a saved loop press a PAD to *prepare* the Loop (the pad's color will turn blue). When a loop is prepared the track will not jump to the loop if the currently playing position of the track is before the loop position. Instead the playback will continue as normal and the loop will be executed as soon as the track reaches the loop position.

Hold **SHIFT** and then press a pad in order to activate the saved loop and jump the track immediately to the loop position.

Press the same pad to disable the loop. In order to delete a previously saved loop, hold down PARAMETER- (46) button and then press a pad once

E. BROWSER

47. BROWSE Knob/push :

Knob: Scrolls through files or folders. When **SHIFT** is pressed it switches focus on folders and navigates them.

Push: If focus is on Songs list or Sideview, it loads the track to the default player. If focus is on the Folders list it switches focus on the Songs List. When SHIFT is pressed, it set focus to the Folders list or opens/closes subfolders if focus is on the folders list.

48. LOAD: Press one of these buttons while a track is selected to **load** it on the corresponding deck. Press and **hold** the same button for more than 1 second, to **unload** the same deck.

Press **SHIFT** and the LOAD buttons to **sort the tracks** of the Songs list by Smart mode, BPM, Title or Artist in descending or ascending order.

49. BACK: Sets focus to the Folders list or opens/closes subfolders if focus is already on the folders list. When **SHIFT** is pressed it cycles focus between Folders, Songs and the Sideview.

50. LOAD PREPARE: Adds the selected track to the Automix list of SideView. When **SHIFT** is pressed, it cycles through the available view of Sideview (Automix, Sidelist, Sampler, Karaoke, Clone views).

F. Rear

51. **MASTER OUT1**: Master signal output connectors (XLR – Balanced). Use this to connect on your pro grade amplifier or self-powered speakers.

52. **MASTER OUT2**: Master signal output connectors (RCA – Unbalanced). Use it to connect with another mixer, or consumer grade amplifier.

53. **BOOTH OUT**: Booth signal output (TRS – Balanced). The strength of the signal is controlled by "BOOTH MONITOR LEVEL" knob (**13**) on the mixer section. Use it to connect your booth speakers, or an amp that needs different sound output level than master output.

54. **CH4 INPUTS**: Connect an analog source on CH4 of the DDJ-SX2 mixer. You can connect a MIC (jack input) or a CD-Player. The input is selectable via "INPUT SELECT SWITCH" (**64**) on the front side.

55. **CH2 INPUT**: Connect an analog source on CH2 of DDJ-SX2 Mixer. You can connect a turntable or a CD-Player. The input is selectable via "INPUT SELECT SWITCH" (**64**) on the front side.

56. **GND SCREW**: Use it to screw your GND cable from turntables that provide it in order to eliminate GND static noise.

57. **CH1 INPUT**: Connect an analog source on CH1 of DDJ-SX2 Mixer. You can connect a turntable or a CD-Player. The input is selectable via "INPUT SELECT SWITCH" (**64**) on the front side.

58. **CH3 INPUTS**: Connect an analog source on CH3 of the DDJ-SX2 mixer. You can connect a MIC (XLR/Jack combo input) or a CD-Player. The input is selectable via "INPUT SELECT SWITCH" (**64**) on the front side.

59. **USB CONNECTOR**: Use a standard USB cable to connect DDJ-SX2 with your computer.

60. **POWER SWITCH**: Turns on/off the power on the device.

61. **POWER INPUT**: Connect the supplied power supply unit.

G. Front

62. **HEADPHONES CONNECTOR**: Use one of the two jacks to connect your headphones.

63. **HEADPHONES LEVEL:** Adjusts the Headphones (CUE) Output Volume (Hardware operation, not visible on the VirtualDJ GUI).

64. **INPUT SELECT SWITCH**: Selects the input of the corresponding channel of DDJ-SX2 mixer. For VirtualDJ to operate the decks, you need to set these on "PC" position.

65. **CROSSFADER CURVE**: Adjusts the curve of the crossfader.

ADVANCED AUDIO SETUP

Recording & Broadcasting

Pioneer DDJ-SX2 uses a predefined simple audio setup that allows VirtualDj to record the **audio output of the software**.

However, if you wish to record the master output of the DDJ-SX2 mixer (in other words **include the sound of analog sources and MIC's** connected on the mixer at your recording) you will have to use an advanced audio setup.

Go to AUDIO tab of VirtualDJ config and create the following audio setup:

Now VirtualDJ will record the output of the DDJ-SX2 mixer instead of its own internal sound.

Important notice: The MIC inputs on DDJ-SX2 are hardware controlled by the unit and their sound can't be routed directly on VirtualDJ. If you want to rec something from your MIC you will have to use the above method. However keep in mind that all other sounds that the unit reproduces during recording will be recorded as well.

Hardware Integration Department

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