



AlphaTheta

DVS Setup Guide



Table of Contents

DVS Setup Guide	1
1 Before Start	1
1.1 Prior to use	1
1.2 Overview of DVS	1
1.3 Required equipment	2
1.4 System requirements	2
2 Preparing application	3
3 Audio Setup	6
3.1 Connecting to a DJ mixer or controller	6
3.2 Connecting to a stand-alone audio interface	7
3.3 Connection example with Phase (HID)	8
4 DVS setup	10
4.1 Enable DVS function	11
4.2 Routing Setting	14
4.3 Calibrating the control signal	16
4.4 Waveform display	19
4.5 Control Vinyl	19

1 Before Start

1.1 Prior to use

This Setup guide explains DVS. For instructions on rekordbox in general, see the Operating Instructions of rekordbox.

rekordbox Operating Instructions: rekordbox.com/en/download/#manual

1.2 Overview of DVS

You can control rekordbox virtual decks using dedicated control vinyl, turntables and DJ units supporting DVS*.

*DVS...Digital Vinyl System



You can control rekordbox virtual decks using turntables. Playback direction, tempo, scratching and playback position are reflected to the track loaded on the deck.

1.3 Required equipment

The following equipment is necessary for DVS.

- **Computer**

See *1.4 System Requirements* for system requirements.

- **Turntables (or CDJ/XDJ)**

Recommended turntable:

PLX-CROSS12

PLX-1000

PLX-500

- **Control Vinyl (Control signal WAV file for CDJ/XDJ)**

AlphaTheta Control Vinyl dedicated for rekordbox:

RB-VS1-K

Please note: We do not support any control vinyl, CD nor control signal WAV data of other manufacturers. If you use them, they won't work properly, for example, the marker on the vinyl and the cue point and the playhead positions may not match.

For CDJ/XDJ users, download Control Signal WAV file dedicated for rekordbox dvs.

Please go to rekordbox.com FAQ page: rekordbox.com/en/support/faq/dvs-7/

Click [How can I use the DVS feature on multi-players (CDJ, XDJ)?] >

rekordbox_Control_Signal.zip, download rekordbox Control Signal WAV file, and unzip it and burn it on CD-R, save it in a USB storage device, etc.

- **DJ units supporting DVS**

For the latest information, please see: rekordbox.com/en/support/link

1.4 System requirements

The latest information (supported OS, required operating environment, etc.) is available on the rekordbox website.

rekordbox.com/en/download/#system

2 Preparing application

Select either of the following procedures to use DVS.

*If you are starting rekordbox for the first time, you will need to setup the AlphaTheta account.

Please refer to the rekordbox Introduction for details of AlphaTheta account.

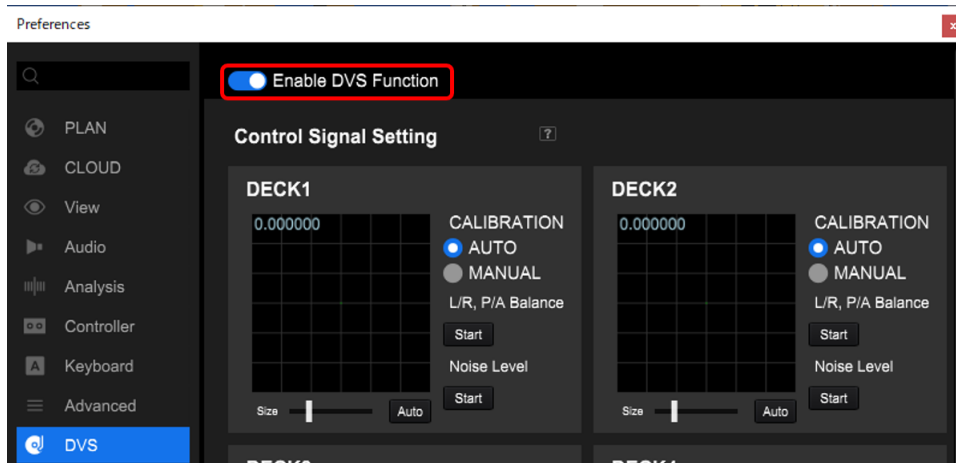
1 Using the DVS function with the Professional, Creative, or Core plan

When you subscribe to one of the subscription plans, you can use DVS feature by enabling DVS setting.

The plan you are currently subscribed to will be displayed in the top right of the screen. Please refer to the Plan page (rekordbox.com/ja/plan/) or FAQ (rekordbox.com/en/support/faq/plans-7/) for details of subscription plans.

Enable DVS Function

- Open [Preferences] > [DVS] category and set [Enable DVS Function] to on.



2 Using the DVS function with the Free plan

Even if you are not subscribed to a subscription plan, you can use the DVS feature by following steps A or B.

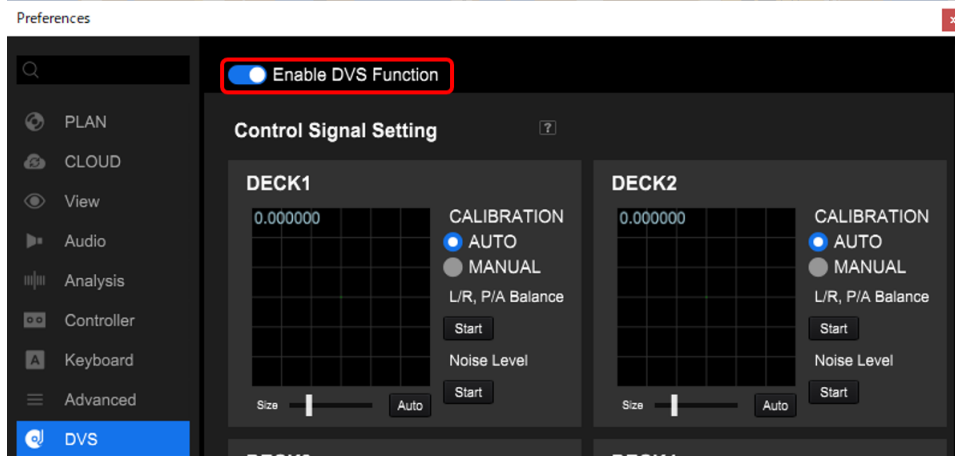
A. Use DJ units supporting DVS that supports hardware unlock

STEP 1. Connect to Use DJ units supporting DVS that supports hardware unlock

- Connect to the DJ units supporting DVS as listed on the Hardware Unlock page of rekordbox.com. (rekordbox.com/en/support/hardware-unlock/)

STEP 2. Enable DVS Function

- Open [Preferences] > [DVS] category and set [Enable DVS Function] to on.

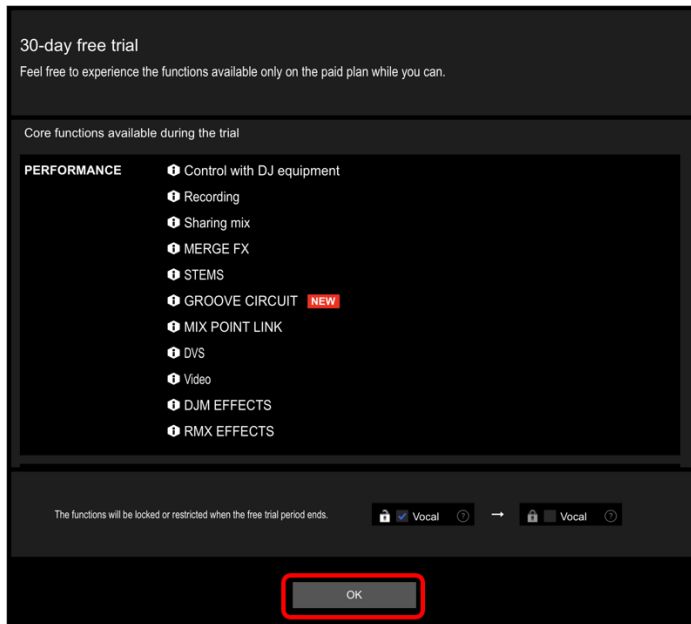


B. 30-day free TRIAL

Install rekordbox and start TRIAL. You can use all features of rekordbox including DVS for 30 days. (TRIAL will be expired once the 30 days have passed.)

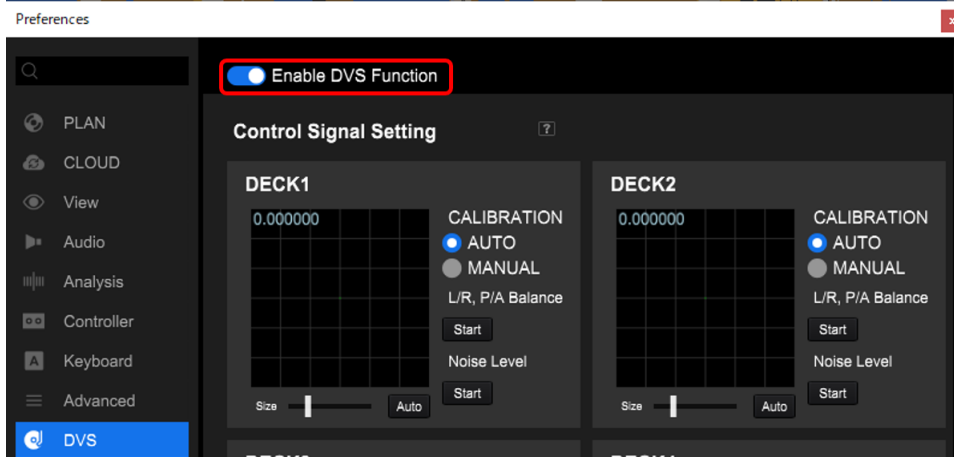
STEP 1. Start Trial

- Launch rekordbox and tick the [OK] button on 30-day free trial screen.



STEP 2. Enable DVS Function

- Open [Preferences] > [DVS] category and set [Enable DVS Function] to on.



3 Audio Setup

3.1 Connecting to a DJ mixer or controller




- Connect your computer to a DJ mixer (controller) using a USB cable.
- Connect turntables (or CDJs/XDJ) to the DJ mixer (controller) using RCA audio cables.

For turntable users:

The turntable must be connected to a channel with [PHONO] or [PHONO/LINE]. Be sure to connect the ground wire of the turntable to the [SIGNAL GND] terminal of the DJ mixer (controller).

For CDJ/XDJ USERS:

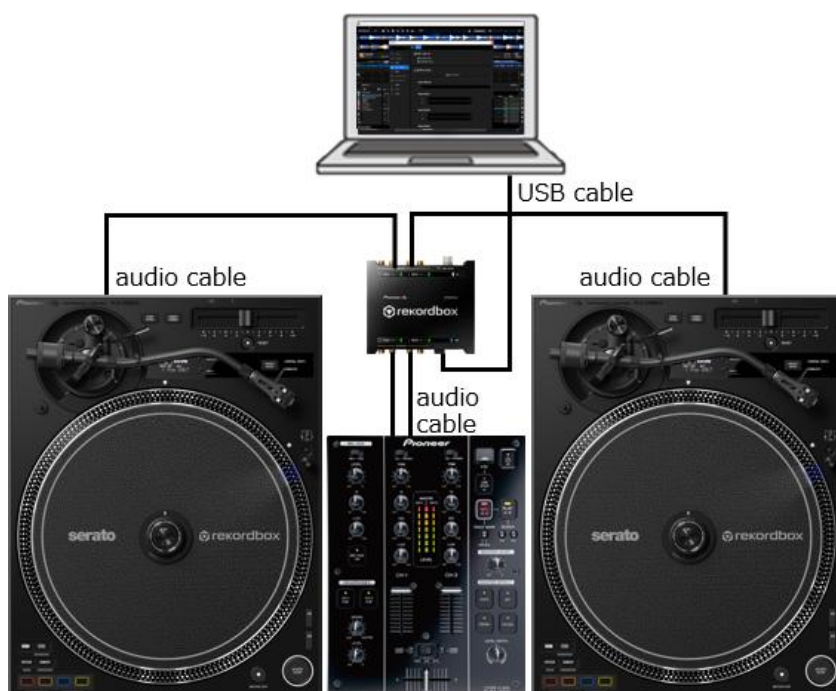
The CDJ/XDJ must be connected to a channel with [CD/LINE], [LINE] or [PHONO/LINE].

- Input selector of the mixer (controller) channel connected to the turntables (or CDJs/XDJ) must be set to [USB-A], [USB-B], [USB], [PC], [], [DECK 1-4], etc. to the position of the computer to which rekordbox is connected.

- Use AlphaTheta Control Vinyl (RB-VS1-K) for DVS.

For CDJ/XDJ users, download rekordbox Control Signal.wav* file and burn it on CD-R or save it in USB memory, etc. and insert the media device to the CDJ/XDJ (*see details to *1.3 Required equipment*).

3.2 Connecting to a stand-alone audio interface



- Connect your computer to a stand-alone audio interface using a USB cable.
- Connect turntables (or CDJs/XDJ) to the stand-alone audio interface using RCA audio cables.
For turntable users:
Select [PHONO] for the input selector switch of the audio interface.
Connect the turntables to the input terminals of the audio interface.
Be sure to connect the ground wire of the turntable to the [SIGNAL GND] terminal of the audio interface.
For CDJ/XDJ users:
Select [LINE] for the input selector switch of the audio interface.
Connect the CDJs/XDJ to input terminals of the audio interface.
- Connect output terminals of the audio interface to CD/LINE terminals of a DJ mixer using RCA audio cables.
- Use AlphaTheta Control Vinyl (RB-VS1-K) for DVS.
For CDJ/XDJ users, download rekordbox Control Signal.wav file* and burn it on CD-R or save it in USB memory, etc. and insert the media device to the CDJ/XDJ (*see details to 1.3 Required equipment).

3.3 Connection example with Phase (HID)

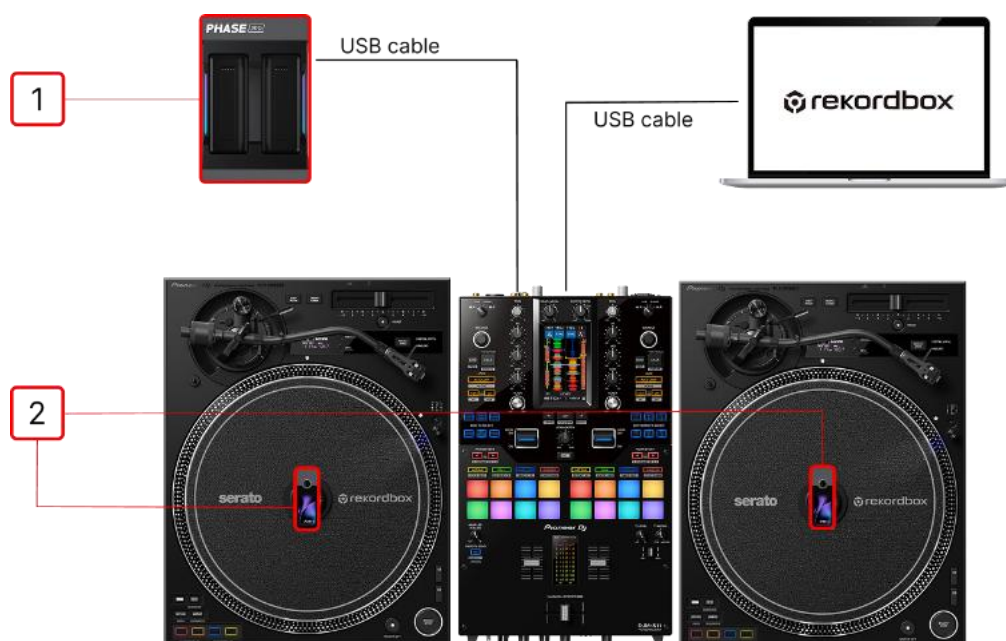
[1] Phase Receiver

[2] Phase Remotes



- Connect PC/Mac and DJ mixer using a USB cable.
- Connect PC/Mac and Phase receiver using a USB cable.
- Set the input selector of any CH on the DJ mixer to the PC/Mac position ([USB-A], [USB-B], [USB], [PC], [DECK 1-4]).
- Place Phase Remotes on the turntable.

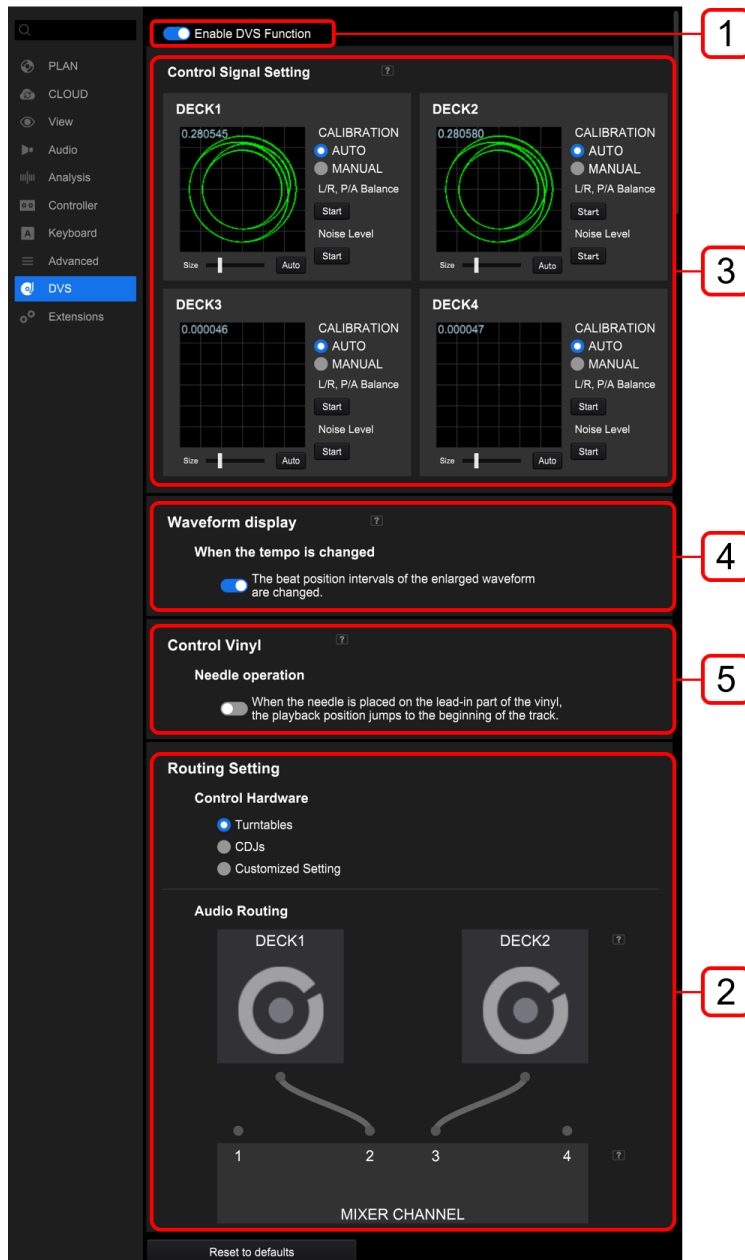
*On DJ mixers with a [CDJ/CONTROLLER] terminals, a Phase Receiver can be connected to the [CDJ/CONTROLLER] terminals using a USB cable as shown below.



4 DVS setup

Open [Preferences] > [DVS] category in rekordbox PERFORMANCE mode.

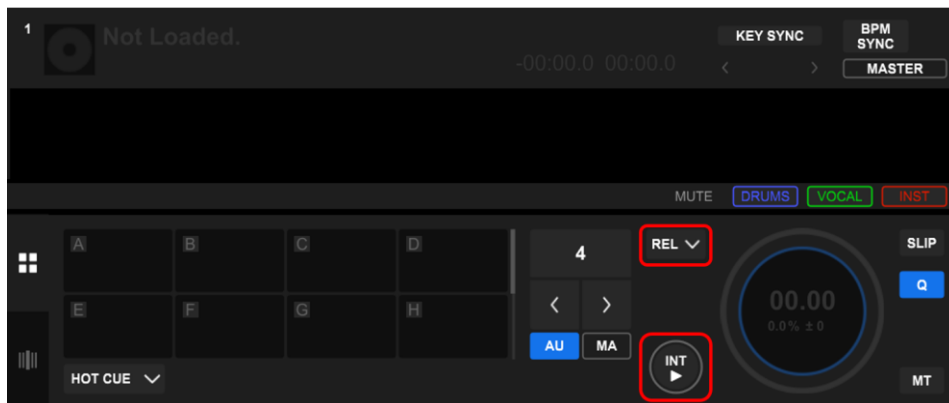
- [1] Enable DVS Function
- [2] Routing setting
- [3] Control signal setting
- [4] Waveform display
- [5] Control Vinyl



4.1 Enable DVS function



When [Enable DVS function] is set to ON, each DECK will switch to DVS mode.



DVS modes: ABSOLUTE, RELATIVE and INTERNAL

Additionally, there are:

WIRELESS mode (when using Phase)

THROUGH mode (when using an audio interface)

Select one of the DVS modes by clicking the DECK number.

Click **REL** and select the mode from the drop-down menu.

ABS : ABSOLUTE mode

- Location of the needle on the vinyl is linked with the playback position of rekordbox DECK.
- Direction, tempo, scratch and other performances on the vinyl are linked to the DECK.
- Digital features such as Hot Cue and Needle Search do not work in this mode.

Note: See *Restricted features in the ABSOLUTE and RELATIVE mode* in page 11 for details.



: RELATIVE mode

- Location of the needle on the vinyl is not linked with the playback position of rekordbox deck.
- Direction, tempo, scratch and other performances on the vinyl are linked to the deck.

Note: See *Restricted features in the ABSOLUTE and RELATIVE mode* in page 17 for details.



: INTERNAL mode

- Location of the needle, direction, tempo, scratch and other performances on the vinyl are not linked to the deck.
- You can use all features on the deck.



: WIRELESS mode (displayed when using Phase)

- Phase wirelessly transmits the rotation and direction information of the turntable without using a needle or control vinyl, and reflects it on the playback position on the DECK in rekordbox.
- In WIRELESS mode, A and B can each be assigned to any deck. (Up to 2 decks)
- When the Phase Remotes battery level reaches 5%, the mode automatically switches to INTERNAL mode.

*Please refer to the list of Restricted features in DVS mode on P.13.



: THROUGH mode (This appears only when using a stand-alone audio interface)

- Audio from a turntable is sent through an audio interface to an output terminal as is.
- The deck will pause.



is displayed except for the INTERNAL mode.

Click this icon to switch to the INTERNAL mode.

Use this feature in the ABSOLUTE mode when you temporarily switch to the INTERNAL mode, e.g. when the needle is approaching to the end of the control vinyl.

Restricted features in the ABSOLUTE and RELATIVE mode

Features on the deck	ABSOLUTE mode	WIRELESS/RELATIVE mode
PLAY/PAUSE	N/A	N/A
CUE	N/A	N/A
AUTO BEAT LOOP	N/A	✓
LOOP IN / OUT	N/A	✓
QUANTIZE	N/A	✓
SLIP	N/A	✓
TEMPO SLIDER	N/A *1	N/A *1
TEMPO RANGE	N/A *1	N/A *1
BPM SYNC	N/A	✓ *2
NEEDLE SEARCH	N/A	✓
PAD / GRID Panel	N/A	✓

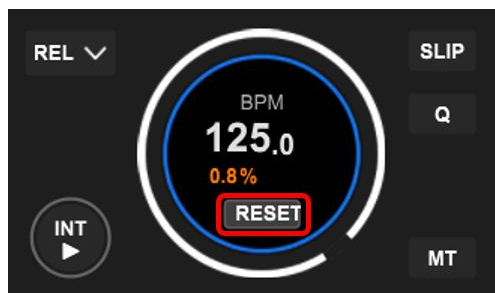
*1...Tempo Control is available by using Tempo Slider or Tempo Range on the turntable (or CDJ/XDJ).

*2...BPM Sync on the deck in the Relative mode works as follows:

- Click [BPM SYNC] you wish to synchronize.
 - The deck is synchronized to the master deck (not grid).
- When you change the master deck tempo using the tempo slider,
 - The BPM of the deck with [BPM SYNC] turned on is the BPM of the master deck.
If you change the tempo of a deck (other than the master deck), only the BPM of the deck is changed.
- To cancel Sync, click [BPM SYNC] again (toggle feature).
 - The BPM remains the same even though you clicked [BPM SYNC].

To return the BPM to the speed you changed using the tempo slider on the turntable (CDJ/XDJ), click [RESET]* (*shown as [R] in the 2 deck/4 deck horizontal mode).

To display [RESET], hover your mouse over a virtual deck.



4.2 Routing Setting

This audio routing setting procedure is available on DJ units supporting DVS(*1).

(*1)...DJ units supporting DVS (rekordbox.com/en/support/link)

To use the DVS function, open [Preferences] > [Audio] category > [Input/Output] tab and complete the following settings.

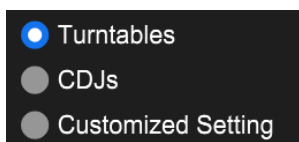
1. [Input Channel]
2. Output setting at [MIXER OUTPUT] in the [Setting Utility] of the hardware.
(Depending on the DJ unit used, this may not be necessary.)
3. [Output Channel]

The audio routing setting makes these settings simple and easy.

Once you completed the procedure, all the settings (1, 2 and 3) will also be completed.

Please note that this audio routing setting is only for the configuration using 2 turntables (or 2 CDJs/XDJs) for the DVS. For other configuration, complete each setting at [Preferences] > [Audio] category > [Input/Output] tab one by one.

• Control hardware

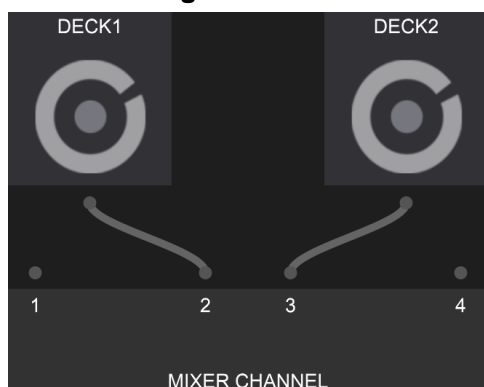


Click one of three options above to select the DJ player.

- To use 2 turntables, click [Turntables].
→ The input to your computer is set to [Control tone PHONO].
- To use 2 CDJs/XDJs, click [CDJs].
→ The input to your computer is set to [Control tone CD/LINE].
- For configuration except for the above 2 cases, click [Custom].

When you select [Custom], complete each setting at [Preferences] > [Audio] category > [Input/Output] tab one by one.

• Audio Routing



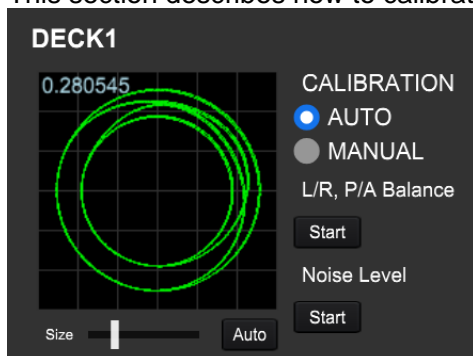
This illustrates an audio routing setting of input and output channels in rekordbox. You can change the setting by yourself.

Click ● and reconnect between deck and the channel number of connected DJ equipment supporting DVS to make it the same as the real configuration.

→ The connection will be reflected to [Input Channel] and [Output Channel] in [Preferences] > [Audio] category > [Input/Output] tab.

4.3 Calibrating the control signal

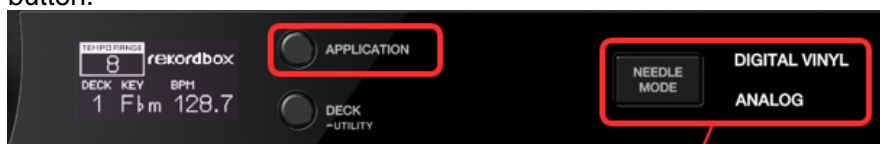
This section describes how to calibrate the control signal from the turntable to rekordbox.



The control signal is described as dual rings. (The number shown in the upper left describes intensity of the signal.)

Important: Be sure to calibrate each deck. If not, scratching and other plays on the turntables may not work correctly.

When using the PLX-CRSS12, play the rekordbox control vinyl in ANALOG mode or select [APPLICATION] > rekordbox in DIGITAL VINYL mode and press the [START/STOP] button.



DIGITAL VINYL mode:

Using DVS without analog records or tone arms

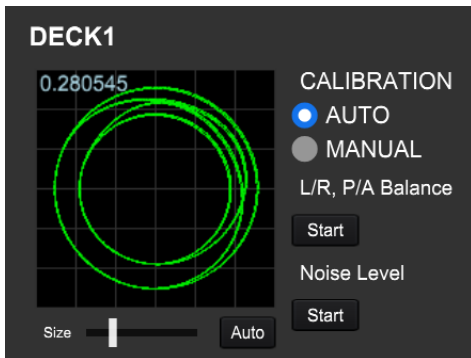
ANALOG mode:

Play analog records (control vinyl)

Select [AUTO] or [MANUAL] for calibration.

First, select the [AUTO] mode to calibrate the signal automatically. Then start the turntable and scratch it. If playback on the deck is not stable when scratching, switch the mode to [MANUAL] and calibrate the signal by hand.

• [AUTO]



STEP 1. Adjusting the control signal.

Start the turntable and click [Start] for L/R, P/A Balance.

When the calibration is completed, [Complete] will be displayed in the upper part of the [Start] button.

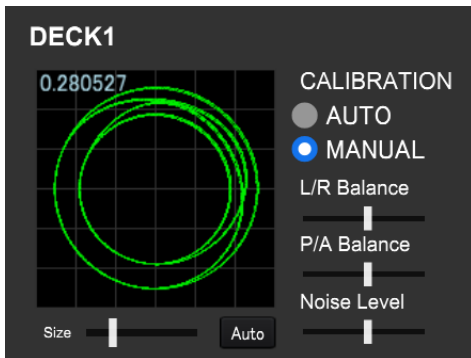
If the rings of the control signal are close to circular, the signal is adjusted.

STEP 2. Adjusting the threshold for the reading of the control signal based on measurement of noise due to vibration from the turntable.

Stop the turntable. Switch the deck mode to [INT] and play the deck. With sound coming from the speaker, click [Start] at Noise Level.

When the calibration is completed, [Complete] will be displayed in the upper part of the [Start] button.

• [MANUAL]



STEP 1. Adjusting the control signal (L/R Balance, P/A Balance) .

Start the turntable. Move sliders for L/R, P/A Balance to make the rings of the control signal as close to circular as possible.

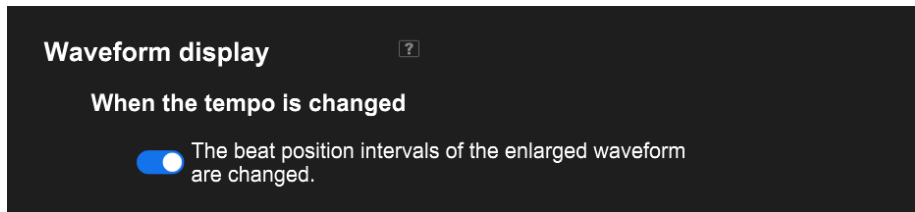
STEP 2. Adjusting the threshold for the reading of the control signal.

Adjust the threshold by moving Noise Level slider. As you move the slider to the right, the application ignores more noise occurred due to the vibration from the turntable. As you move the slider to the left, you can hear scratching more precisely as more signals can be received.

You can change size of the control signal display by Size slider.

Note: You can enlarge the size of the rings.

4.4 Waveform display



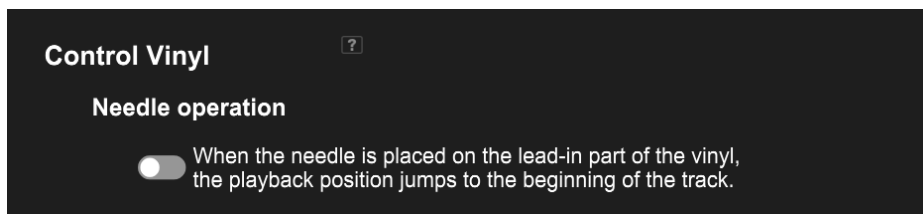
When set to on, the beat position intervals of the enlarged waveform are changed when you change the tempo of the track. (The scrolling speed does not change.)

When set to off, the scrolling speed of the enlarged waveform is changed when you change the tempo of the track. (The beat position intervals do not change.)

This is available only when [Enable DVS function] is on.

(When [Enable DVS function] is off, the beat position intervals of the enlarged waveform are changed.)

4.5 Control Vinyl



This is available only in RELATIVE mode.

When set to on, the playback position jumps to the beginning of the track when the needle is placed on the lead-in part of the control vinyl.

(When using the control signal WAV file, place the playback position of the player to the beginning of the WAV file to use this feature.)

The DVS setup is now complete.

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