

According to the firmware update, some new functions are added and operation / configuration are changed. The new operation for the new firmware is described in this document.

1. Operation Instructions

1) If using Linn Kinsky on your iPhone / iPad

- ① Select DSP-030EX from Room on the upper right of the screen.
- ② From home – Library to the left, select the NAS containing the track you would like to play back.
- ③ Select the track you would like to listen to from the NAS. If the display to the lower left of the screen is Play Now, the track will be played back immediately, and if it is Play Next or Play Later, the track will be added to the playlist displayed to the right. To begin playback, press the triangular playback button.
- ④ You can add tracks you would like to listen to later to the playlist, even while playing back a track. If the display to the lower left is Play Now, the track being played back currently will stop and the selected track will be played back immediately. If the display is Play Next, the track selected will be played back after the track being played back currently ends. If the display is Play Later, the track will be added to the end of the playlist.

2) If using Roon

Through configuration settings (described later), it is also possible to perform operations using Roon. For usage instructions, refer to the Roon manual.

3) If using Diretta (LAN DAC mode)

Connecting with Windows PC with LAN cable, you can play music with player software running on PC.

- ① Download Diretta driver software from download page in SFORZATO web site, and install the driver. Currently MAC version is not available.
- ② Pressing buttons on front panel (described later) or configuration (described later), go into Diretta mode.
- ③ Select SFOZATO Diretta ASIO driver in the Player software in PC and play. Music starts in DSP-030EX.

4) If using USB

You can perform operations using USB rather than via LAN. Through connection

with your PC, you can play back tracks from sources that cannot be accessed through network player features, such as YouTube and other streaming services.

- ① From the download page of the SFORZATO company website, download the PC driver. A driver is not necessary if you are using a Mac.
- ② Following the installation manual, install the driver to your PC.
- ③ Connect your PC to DSP-030EX using a USB cable.
- ④ Switch to USB operation mode using front button operations (described later) or LAN configuration (described later).
- ⑤ By playing back music on your PC, sound will be transmitted through DSP-030EX.

2. Clock

DSP-030EX does not contain an internal clock generator. Dedicated external clock should be connected to the BNC terminal of the DSP-030EX. Using PMC-02EX / PMC-015EX or other external clock can be used for better sound quality.

- ① Connect the 10MHZ output of an external master clock generator to the BNC connector on the back of DSP-030EX using a 50Ω impedance BNC cable. The clock generator will work even if the impedance is not 50Ω, but in most cases, results will be better with 50Ω impedance.
- ② Turn the clock power on and then turn the DSP-030EX power on. If the clock is not inserted correctly, External Error will be shown on the display of the main body. In this case, check the connection with the master clock, the power of the master clock, and the master clock output frequency.

3. Front Switch

The 2 buttons of Display and Phase are located on the front of the DSP-030EX main body. Their functions are as follows.

Display Button

This button switches the information displayed for the track being played back.

Pressing the button toggles between Track Title – Album Name – Performer – Sampling Frequency and Bitrate – Display Off, in that order.

Pressing and hold the Display button changes player mode. It changes mode as UPnP -> roon -> Diretta -> USB -> UPnP

If playback is stopped for a while, the display automatically turns off and enters energy-

saving mode. However, although the display is turned off, the power is still on for other parts, and instructions from controllers will still be received. If you will not be using the device for a long time, turn the power switch off.

Phase Button

This button performs phase inversion (switching the output polarity).

Normally for XLR balanced output, pin 2 is hot and pin 3 is cold. When you press the Phase button, INV will be shown on the display of the main body, and pin 3 will be hot and pin 2 will be cold. Also, the phase of the RCA output will be inverted.

Make a selection based on the connected device. Also, depending on the track, sounds may be more natural after phase inversion. Change the settings as you please before use.

Pressing the Display and Phase Buttons Simultaneously

By pressing and holding both buttons simultaneously, the device will enter settings mode.

Do not press both buttons simultaneously while playing back a track.

In settings mode, the following will be displayed.

IP address The IP address set up for DSP-030EX will be displayed.

Press the Display button to switch to

Revision The current software version for DSP-030EX will be displayed.

Press the Display button to switch to

Interface Switch

If Ethernet mode is currently active, Interface to USB will be displayed. Press the Phase button and reboot to switch to USB mode. If USB mode is currently active, Interface to LAN will be displayed. Press the Phase button to switch to Ethernet mode.

Press the Display button to switch to

Live Update

When the Phase button is pressed, DSP-030EX automatically accesses the SFORZATO site, searches for software, and updates to the newest version if the current version is not up to date.

Press the Display button to switch to

Status The clock input frequency will be displayed.

Press the Display button to switch to

MAC Address Display

The MAC address assigned to DSP-030EX will be displayed.

Press the Display button to switch to

Factory Reset

Press the Phase button to restore factory settings.

Press the Display button to switch to

Reboot

Press the Phase button to reboot.

Press the Display button to switch back to the IP address display.

To escape settings mode, you must go to Reboot and press the Phase button to reboot.

4. Configuration

For iPhone, iPod, etc.

Download the free software SFORZATO Connect from the App Store. Although SFORZATO Connect also works on iPads, it is an iPhone app. Search for it as an iPhone app on the App Store. Connect your iPhone, iPod, etc. to the same network as DSP-030EX and start SFORZATO Connect to display the settings screen.

It is also possible to customize DSP-030EX operations by connecting it to your PC.

Please download SFORZATO config from download page in SFORZATO web page and install it in your PC. When the software launched, it finds DSP-030EX in the same network and opens the configuration window using web browser software.

Entering the DSP-030EX IP address in the URL entry field of the internet browser software also display the settings screen.

You can obtain the IP address of the main body through the settings mode described in the previous chapter under the section regarding pressing both buttons simultaneously. Replace the x's in <http://xxx.xxx.x.x/> with the values obtained from the DSP-030EX main body.

Configuration window:

Player	<input type="text" value="UPnP"/>
Polarity	<input type="text" value="Normal"/>
Controller	<input type="text" value="OpenHome"/>

Clock Input External

Name	<input type="text" value="SFORZATO DSP"/>
PCM Upsample	<input type="text" value="off"/>
PCM Oversample	<input type="text" value="off"/>
Volume	<input type="text" value="disable"/>
Default Polarity	<input type="text" value="Normal (#2 hot #3 cold)"/>
Default display	<input type="text" value="TITLE"/>
Display Brightness	<input type="text" value="maximum"/>
Factory Reset	<input type="checkbox"/>

[Beta Function](#)

[Update](#)

Player:

You can select player mode UPnP (DLNA or OpenHome), roon, Diretta or USB.

UPnP is for controlling by Kinsky, MConnectHD. If you use Roon, please select roon.

Using DSP-030EX as LAN DAC connecting with PC, please use Diretta. In USB, DSP-030EX works as USB DAC>

Polarity:

You can change output polarity.

Controller:

If you use MconnectHD or other DLNA/UPnP controller, please select DLNA. If you use Kinsky or other OpenHome controller, please select OpenHome. You can also choose both mode.

Set button:

Pressing the button, selections in Player, Polarity and Controller are applied.

Name:

You can change the name of DSP-030EX displayed on the controller software screen. Enter the name you desire.

PCM Upsample:

When Upsample is enabled, PCM of 44.1kHz/88.2kHz will be upsampled to 176.4kHz, and 48kHz/96kHz will be upsampled to 192kHz before D/A conversion. For upsampling, a minimum phase filter with no pre-echo achieved through double precision 64bit floating-point operation is used.

PCM Oversample:

Normally the PCM Oversample is on. If you turn off, oversampling at D/A conversion is disabled. No interpolation FIR filtering is applied, therefore pre-echo or post-echo problem does not occur.

Volume:

When Volume is enabled, the volume can be changed through Kinsky, MLPlayer, Roon, etc.

For Enable50, the volume will be set at half (50/100) when the power is turned on.

Enable25 will set the volume at $\frac{1}{4}$ when the power is turned on, and Enable0 will set the volume at 0.

Apply these settings based on the usage environment, so that loud sounds do not come out immediately during music playback right after turning the power on.

Default Polarity:

You can invert the output phase.

Default display:

You can set up the front display shown after startup. The factory settings display the title. It is also possible to set this up so that the display is off.

Display Brightness:

You can adjust display brightness.

Factory Reset:

Check the box to restore factory settings.

Set button:

Pressing the button, selections above are applied.

Beta Function:

Function under development can be selectin in the page.

Music Toss:

Compatible with Apple AirPlay. Music in Mac, iPhone, iPad etc. can be played with DSP-030EX. Sometimes it may not work properly because it is not fully debugged.

UPDATE

The current software version will be displayed.

Live:

Start liveupdate button automatically connect DSP-030EX to SFORZATO server and update software automatically.

File:

If you want to change software to older version or when live update does not work properly, you can update software manually. Download firmware in your PC and select the firmware, press write file button upload the firmware into DSP-030EX.

5. Software Update Instructions

As explained in the previous chapter explaining the buttons, the device will enter settings mode when you simultaneously press the 2 buttons on the front panel. Press the

Display button repeatedly until the Live Update screen is displayed and press the Phase button to perform an automatic software update.
