Owner's Manual

DynaSample
XPression

Realtime
Performance Synth

Software-Version 1.3.0

Owner's Manual

XPression

DynaSample

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I.) License Agreement & Warranty

Congratulations on purchasing our MIDI / USB sound module **XPression**!
We hope you will have much musical enjoyment with this excellent product from DynaSample!

In order to avoid problems or inconveniences that could affect your artistic and musical creativity we kindly ask you to carefully read the following license agreement and safety instructions.

By using the instrument you explicitly accept these terms. In case you do not agree with the following terms please do not play the instrument and contact **DynaSample** immediately.

1) Rights of Use:

The user has the right to use the instrument for private or commercial purposes and perform in public or publish the results of these performances in any way without restrictions.

The license of the sound library is connected to the hardware unit and not to the user. I.e. the user has the right to sell the instrument and the license will stay valid for the instrument with the next owner. Once the license fee for the library has been paid in full it will stay permanently on the instrument. In case of a defect of the hardware the license can be transferred to another unit if the defective unit is returned to DynaSample.

The user does not have the right to copy single notes or instruments as samples either by recording audio or copying sound files from the memory for the use with other software or hardware instruments unless authorized by DynaSample. Violations will be prosecuted by law.

Parts of the software are subject to the GNU GPL license. Please contact DynaSample for further information or get information on the internet about the license of Pd-extended and Truecrypt.

If the user has a time limited license agreement the license will expire after the time specified and he will have to make a payment - as specified at the time of purchase - to renew the license until he has acquired a permanent license. The conditions are subject to change and are valid as of the time of purchase throughout the full time needed to acquire the full license.

Any attempt to manipulate the license will make the license void for this licensing period and the license for this time period will have to be purchased anew. The last specified licence payment will make the license permanent.

2) Safety Instructions:

Only use the included AC adapter. Other power supplies might cause problems or damage the unit.

Do not attempt to use the unit at temperatures lower than 0°C (32°F) or higher than 40°C (105°F) to avoid damage from moisture or overheating.

Protect the unit thoroughly against liquids, humidity or condensation that might occur when experiencing large temperature changes.

The vents on top and on the side of the housing need to be uncovered at all times. Covering them can lead to overheating and will void the warranty.
Always place the unit in a dry place with sufficient air for cooling and avoid placing it directly in the sun. Do not place it next to heating appliances or similar.

Do never open the unit. Opening can impact the functionality and lead to damages. There is also a risk of injuries by touching any of the electrical parts.

Do never manipulate the AC adapter in any way. There is a serious risk of an electrical shock!

Transport the unit carefully and only in its original case to avoid damage.

To avoid damaging the amplifiers and speakers as well as injuring your ears turn on XPression first. Then switch on your amplification system and slowly raise the volume without sudden volume jumps that could hurt your or other people's ears.

When finished turn off the amplifier first and then XPression.

Self-inflicted errors caused by disregarding the above mentioned safety instructions can lead to the loss of the warranty. Breaking the warranty seal will void the warranty in any case.

The use of this unit is at your own risk!

All service needs to be handled by DynaSample or an authorized service center.

3) Limited Warranty:

DynaSample grants a 2 year warranty from the date of purchase for all parts and the software / library as long as the defect has not been caused by improper handling, mechanical damage or intentionally. For verification of the warranty it is necessary to present either the original sales invoice or having the unit registered with the serial number plus name and full address. A damaged or broken warranty seal will render the warranty void.

Product features, specifications and availability are subject to change without notice.

FCC Compliance Statement (U.S.A.):
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.
Unauthorized changes or modification to this system can void the user's authority to operate this equipment.

Canadian Compliance Statement:
This Class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

European Compliance Statement:

CE mark for European Harmonized Standards:
The attached CE mark of AC mains operated appliances indicates that this product conforms to EMC Directive (89/336/EEC), CE mark Directive (93/68/EEC) and Low Voltage Directive (73/23/EEC).

Important Notice to Consumers:
This product has been manufactured according to strict specifications and voltage requirements that are applicable in the country in which it is intended that this product should be used. If you have purchased this product via the internet, through mail order, and/or via a telephone sale, you must verify that this product is intended to be used in the country in which you reside.
WARNING: Use of this product in any country other than that for which it is intended could be dangerous and could invalidate the manufacturer's or distributor's warranty. Please also retain your receipt as proof of purchase otherwise your product may be disqualified from the manufacturer's or distributor's warranty.

Das CE-Zeichen für die Europäische Gemeinschaft:
Das CE-Zeichen auf unseren netzgespeisten Geräten zeigt an, dass dieses Gerät gemäß der EMC-Richtlinie (89/336/ EWG), der CE-Richtlinie (93/68/EWG) und der Niederspannungsstromrichtlinie (73/23/EWG) der EU arbeitet.

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Special thanks to „Cembalobau Merzdorf" for their kind support!

II.) Design and Architecture of XPression

1) General Information about Sound Production

- **Features**

Eight Voice Sample Engine & Virtual Analogue Synthesizer

XPression can play Samples and the integrated analogue synthesizer at the same time.

Two MIDI plus two USB-MIDI Inputs

allow a flexible setup with several MIDI controllers plus additional connections with the VSTi plugin to integrate seamlessly into your DAW.

TDB (True Dynamic Behavior)

True Dynamic Behavior describes the technique that XPression uses to emulate the behavior of real instruments. XPression uses manipulations that are very similar to the way the air column inside a tube of a real instrument is vibrating. This approach guaranties a vivid dynamic and natural sound spectrum. However – as opposed to physical modelling – samples are used as a sound base. This is why the instrument is not only behaving very “realistic” – it also sounds very “realistic”.

Voice Control

Voice Control allows extremely intuitive dynamic control by using a microphone.

The most natural way to achieve musical phrasings is the human voice. XPression captures these phrasings with a microphone and translates the information internally to MIDI data to control dynamics and sound. The captured data can control the internal sounds and also outputs CC messages for use with a sequencer as well.

A „Pitch to MIDI“ converter allows directly singing into an internal synthesizers. By using a neck contact microphone it is even possible to use acoustic instruments like a trumpet or a saxophone to operate the internal Voice Synthesizer or – with certain restrictions – sampled instruments.

Dynamic Vibrato

Many wind players create vibrato by changes of the air stream. This technique is usually called “diaphragm” or “throat” vibrato. XPression recognizes this type of vibrato and creates a musical sounding vibrato that does not cause any intonation artifacts.

Keysplit

The keysplit function allows keysplits and dual layers even if your MIDI controller does not provide such features.

Chord-Mapper

XPression’s Chord-Mapper offers the unique possibility to execute polyphonic playing on a monophonic instrument like a MIDI windcontroller. To achieve this task chords with individual voices can be assigned to each single note. Depending on the mode you are using chords can be assigned over the full range or repeat every octave or they could use just one single chord that will be shifted parallel through the entire range.

Karaoke Audio Playback Engine

For each preset a audio file can be assigned that will start automatically after a certain amount of notes being played. This way there is no need for an external unit to provide backing tracks. No extra action – other than selecting the preset - is required to start the backing tracks.

Optimized for MIDI Wind Controllers

XPression is suited very well for the use with MIDI wind controllers. All necessary settings can be set automatically for each MIDI input and special preset banks have been optimized for the use with these instruments.

Akai EWI-USB Editor / Pitchbend Program Change

XPression can edit all parameters of the AKAI EWI-USB. Even though the EWI-USB has no program change buttons it is possible to receive MIDI program changes with XPression from the EWI-USB.

Complete MIDI Controller Redirecting

Unfortunately not all keyboards or windcontroller can send any CC message that is needed at the moment. This is why XPression offers the ability to globally redirect any incoming CC message, aftertouch or pitchbend into another CC message. In addition to this it is possible to define and store up to six individual remappings including range mapping per preset.

10 User Preset Banks

To store edited presets there are 10 [**User**] banks available each containing 128 presets. These banks can be archived via USB and / or exchanged with other users.

VSTi - Mixer

For full integration to a computer studio environment there is a VSTi plugin (Windows only) which allows preset selection and gives direct access to the mix parameters.

There is a separate manual for this plugin.

- **Voice Architekture / MIDI Channel Assignement**

To allow XPressions complex polyphonic and multitimbral playing styles the MIDI channels 1-8 have been assigned to specific functions. The assignment of these channels repeats identically on channel 9-16.

Channel 01 (09):	Control channel for backing tracks, keysplits and Chord-Mapper
Channel 02 (10):	Second keysplit- / layer channel
Channel 03-08 (11-16):	Chord-Mapper channels 1-6

If no layer or Chord-Mapper preset is used XPression behaves (e.g. with a sequencer) on all 16 channels like any other sound module in multi-mode.

2) Setting up the Cable Connections

- First you need to connect the remote unit with the main unit by connecting the included sub-d cable at the rear side of XPression.
- Connect the MIDI out of your keyboard or other MIDI controller with one of the MIDI in jacks on the front or rear panel of **XPression**. Alternatively you can also connect a USB keyboard or an Akai EWI-USB to one of the front USB connectors. The USB keyboard needs to work with standard USB MIDI drivers. Otherwise it is not possible for XPression to recognize this unit.

!!! ***Attention (!)****: The USB controller has to be connected before starting up. In case it gets connected later it will have to be registered first. To do so move the joystick to the left [◄] or right [►] and navigate back to the main page a few seconds after connecting the external USB unit.*

- Connect the Audio out 1 jacks with a proper cable using ¼ inch unbalanced phone plugs to your amplifier or mixing desk. The nominal level is -10 dB. Alternatively you could use a suited RCA cable to connect the digital SPDIF output to a corresponding SPDIF input of your amplification system.

!!! ***Attention (!)****: The SPDIF output will have to be activated in [Utility] beforehand!*

- You can also connect a pair of headphones to the green 1/8 inch stereo jack at the front panel of the unit.
- Connect the included AC adapter with the jack on the rear side of XPression. Then connect the AC cable to the wall socket and turn the unit on by pressing the power switch on the right side of the front panel. The power LED will light up and the display will show a startup message.
- **XPression** is now loading the software and the samples. This can take some time. When loading has finished the display will say „READY“ and change to the main display page showing the preset names and numbers as well as some additional information.
- To switch the unit off press and hold the power button for 4 seconds.
  It is recommended to always disconnect the AC adapter from the wall outlet if the unit is not in use.

3) General Operating Instructions

On the remote control unit of XPression there a four function keys or soft keys as well as a joystick on the left side and a control dial on the right side.

The four function keys are assigned as preset memory buttons while on the main display page. When in any of the edit modes these buttons serve to jump directly to the corresponding functions shown in the display. When pressed once more the value of most parameters can be toggled between the current value and the default value. Furthermore - in [Edit] mode by pressing and holding - these buttons can be used to copy single parameters to a range of other presets within a preset bank or to restore the respective parameters from the original factory presets.

☺ *Hint:* *By pressing one of the function keys while still on the title of the menu you can jump quickly to the parameters without having to wait any longer.*

With the joystick on the left side of the remote control unit you can move to the left [◄] or right [►] to select different menu options. Moving up [▲] or down [▼] lets you change the current value. Holding lets you move quickly through the values.
The joystick also has the function of the [**OK**] (= [**ENTER**]) and [**Escape**] button. Pressing it quickly means [**OK**]. Pressing and holding it for one second triggers [**Escape**]. Like this the current action gets either confirmed or aborted. Pressing and holding the joystick for 3 seconds will cause a REST. This will cut off stuck notes and take you back to the main display page. It also resets some internal parameters that might be causing some unexpected behaviours.

On the main display page joystick up [▲] or down [▼] will select „external“ MIDI program changes internally. The preset name will be flashing and does not get selected until confirmation with [**OK**]. [**Escape**] will cancel the operation. The external MIDI program number can be seen on line 4 of the display on the left side.

The control dial on the right side will select the internal preset (without simulating an external MIDI program change). Pressing the dial shortly will assign this preset to the current external MIDI program number if a Preset Map has been activated in the [**Global**] menu.

When pressing the dial longer than one second the current MIDI channel can be changed while keeping the dial pressed down.

4) Bank (Factory / User)

XPression ships with several [**Factory**] banks and 10 [**User**] banks (0-9) containing 128 presets (or patches) each. The [**Factory**] banks cannot be overwritten. However, the [**User**] banks can freely be changed in any way desired.

For each MIDI channel an individual Preset Bank can be assigned. Banks can be selected from MIDI with CC 0 (bank select).
A value of 0-9 has to be sent for the [**User**] banks. The [**Factory**] banks are starting at 64 – going up.

5) Preset

Each of the 128 available presets per bank can play a sample and / or a virtual analogue layer. On top of it you can assign an external preset from another MIDI sound module and – if desired – mix to the internal sound generator by connecting it to the line input of XPression.

To each preset you can assign a sound file (.wav, .aif, .mp3) and a Chord-Mapper preset.

Within each preset you can reassign a number of MIDI CCs for assigning the same controls of your instrument to different functions of XPression.

You will find more information about this in chapter VI.) **Edit Mode**.

6) Store Preset

Edited presets can be stored to [**User**] banks while in [**Edit**] mode by pressing [**OK**]. You can select a new preset number to store to - if needed - and confirm. The changed preset can then be recalled at any later time by selected the previously stored preset. To copy a preset to a new location from the main page move the joystick to the right until [**Store**] appears. Confirm with [**OK**] and proceed as explained above to create a copy of the current preset on another location.

Edited presets can be renamed as explained in chapter VI.) **Edit Mode**.

Storing to the [**Factory**] banks is not possible.

7) User Interface

The user interface consists out of

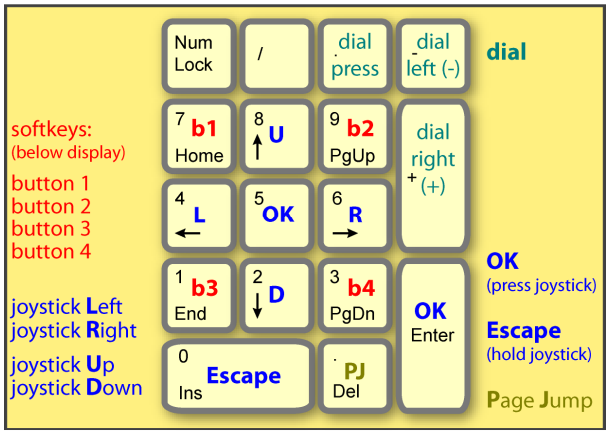
a) the **Main** page - this is where you select presets and see the most important information
b) the **Play** pages - here you can assign sound files (.wav, .aif, .mp3) to the presets
c) the **Edit** pages where sounds are edited and stored
d) the **Global** pages where general settings for the entire instrument are made
e) the **Utility** pages - where you can find additional tweaks and information about **XPression**

There are also functions for selecting **Preset Banks**, copying **Preset Banks** as well as the **Demo** page to hear some audio examples.

You can reach these pages by moving the **joystick** to the right [►] or left [◄]. Functions are activated with [**OK**] by shortly pressing onto the **joystick**. Pressing and holding the joystick for longer that one second will send [**ESCAPE**] which will always take you back to the main page.

8) Alternative User Interfaces

There is also a possibility to use the “Key Remote” (see [**Global**] Key Remote) or a number pad of a USB QWERTY keyboard to get around the user interface. Note that the number pad has to be connected before starting up.



III.) Inputs and Outputs

Front:

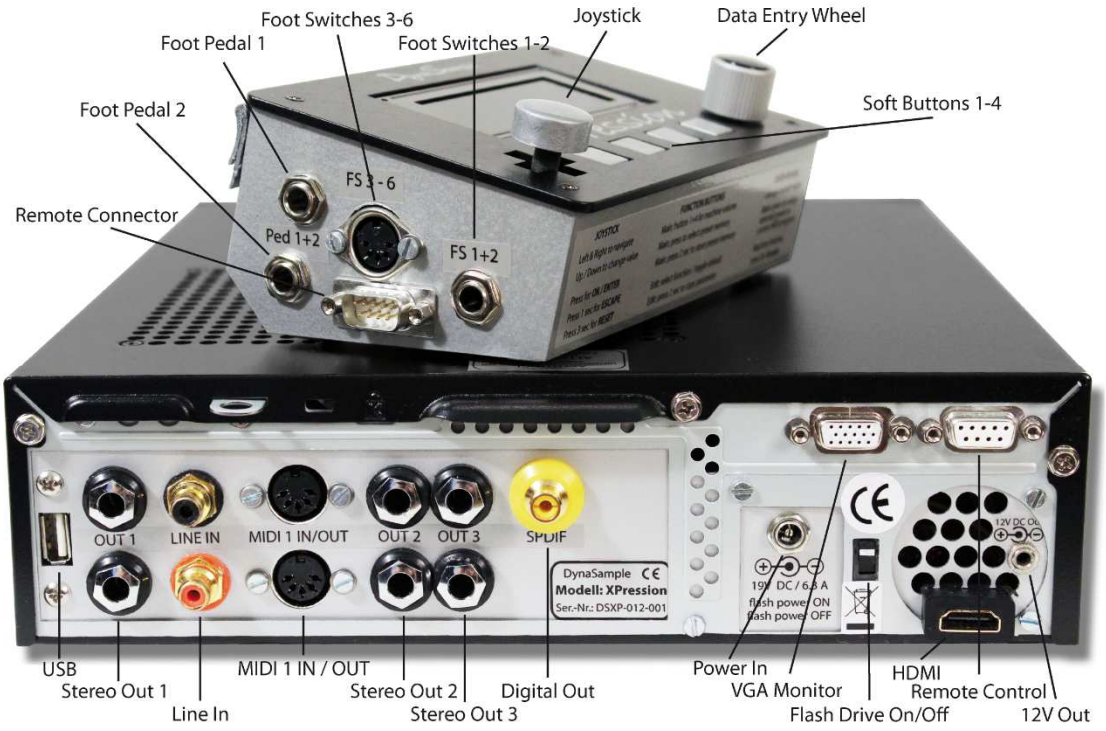
The USB 1+2 connectors can be used as USB-MIDI for the Akai EWI-USB or a USB keyboard with USB standard MIDI drivers.

Remote Control Unit:

The pedal jacks carry +5V at the tip of a ¼ in stereo phone jack.
The ring provides the signal and the sleeve is connected to ground.
Most pedals ranging from 4 - 50 kilo ohm should work. Optimal values are approximately 10 k.

The footswitches 1+2 are set up as a stereo phone jack. The tip represents footswitch 1, the ring footswitch 2. Ground is connected to the sleeve. It is possible to connect a mono footswitch to operate only the first footswitch.

The footswitches 3-6 are connected with the included breakout cable. These need mono ¼ inch phone connectors.



Rear:

On XPression's rear panel you will find all other connectors as described above.
The audio inputs and outputs are unbalanced and calibrated to a level of -10 dB.

Please note that there is no more VGA output on the current models starting with serial number DSXP-015.

IV.) Factory / User Preset Banks

1) Select Bank

Move the joystick to the left three times to go to the bank select page [**BnkNo**]. Press the joystick for [**OK**]. Select the MIDI channel on the left part of the display and assign a preset bank to that channel on the right side with the control dial or the **joystick** [▲] or [▼]. It is also possible to change all MIDI channels at once.

Move the cursor to the left with the joystick [◄] or press one of the two function keys on the left side to select another MIDI channel and continue with other channels if desired.

Leave the bank select page with [**OK**] or [**Escape**].

☺ *Hint: Shortcut is button 1 and 2. Escape by pressing onto the dial.*

2) Renaming of User Banks

By moving the joystick to the right while on the bank select page you can reach another page that allows you to rename this User Bank. Use the joystick to navigate and the dial on the right hand to change characters.
[**OK**] takes you back to the bank select page. [**Escape**] brings you back to the main page. All edits will be stored in any case.

3) Copy and Restore User Banks

[**User**] banks can be copied to other locations or be "reset" from the factory banks at any time.

- First select the target bank that you want to copy to or restore.
- Move the joystick to the left four times until you reach Bank Copy [**BkCp**] and press [**OK**].
- You will see a selection whether to make an internal reset or copy / restore to or from USB.
- Choose internal Reset.
- You will be warned that the current bank will be overwritten followed by: „ Press [**OK**] to continue".
- Confirm with [**OK**].
- Use the **joystick** [▲] or [▼] to select the source bank to copy from.
- follow the directions on the displays or abort with [**Escape**].

☺ *Hint: It's a good idea to make a safety copy of your own edited bank onto another bank!*

4) Copy User Banks to an external USB Drive

This provides the possibility to store a complete preset bank onto an external USB drive. You can select both the source and target bank to copy from or to.

- connect a USB drive to one of the available USB ports.
- Make sure that a [**User**] bank is active.
- Move the **joystick** to the left until you reach Bank-Copy [**BkCp**]. Press the **joystick** for [**OK**].
- You will see a selection whether to make an internal reset or copy / restore to or from USB.
- Choose "Backup to USB".
- follow the onscreen instructions or abort with [**Escape**].

With the same method you can restore previously save preset banks to XPression when selecting "Copy from USB".

☺ *IMPORTANT:*
- *The USB drive has to be formatted with FAT32.*
- *These files can be copied to almost any computer for backup or email transfer.*

V.) Play

1) General

XPression offers the possibility of automatic sound file playback by assigning an audio file to a preset on channel one. The backing track can be started automatically with the first note played after preset selection or any later note that has been assigned accordingly.

Start / Stop can also be received from MIDI realtime commands [250] and [252]. It can be selected as well from MIDI CC 120 that might have been assigned beforehand to a footswitch.

If a sound file is assigned to a preset and activated the name of it will be shown in the third line of the display together with the abbreviation of its status.

You can reach the settings by moving the joystick to the right until [**Play**] appears and press [**OK**] to activate Playback Edit Mode.

!!! ***IMPORTANT (!)****: Playback can be stopped anytime with [**Escape**] !*

2) Parameter

Karaoke Playback Selection - Select Sound File

Select a sound file with the dial to assign it to the current preset.

!!! ***Attention (!)****: Please reselect the sound file before editing and check the status or else there could be errors.*

Volume

Sets the volume gain in dB.

This parameter will be stored with the sound file and be recalled when the file is used elsewhere.

Status

Decides whether the assigned sound file is active or not.

- **disabled** no sound file is played – the currently selected sound file will be reset
- **no autoplay** the sound file gets started only with MIDI start / stop commands
- **autoplay** plays the sound file when the note number that is set up in [**Start**] is reached
- **PgUp-Stop** plays the sound file then executes a program up command and stops
- **PgUp-Cont** plays the sound file then executes a program up command and continues to play the assigned sound file for this preset if activated

Start

Sets the note count to start playback of the assigned sound file if set to “autoplay”.

Backing Tracks – internal or USB

It is possible to select whether the backing tracks are coming from the internal flash drive or from an external USB drive that can be connected to any available USB port.

After connecting an external drive you need to reselect “USB backing tracks”

NO backing tracks - turns the function completely off.
INTernal backing tracks - uses the sound files stored inside the internal flash memory.
USB backing tracks - plays the backing tracks that are stored on an external USB drive.

Karaoke EQ Settings

A two band equalizer for treble and bass can be activated to optimize the frequency response.

This parameter will be stored with the sound file and be recalled when the file is used elsewhere.

Copy Files from USB to XPression

With this function you can copy audio files of the formats MP3, WAV or AIF from an external USB drive into XPression's internal memory.

The files need to be located in the following folder:

xpression/karaoke/soundfiles/

The folder „xpression" needs to be on the top level of the USB drive and not inside another folder.

!!! ***IMPORTANT (!)****:*

- Only MP3s with the format MP3 Layer III will work.
- NO blank spaces or special characters like Umlaut are allowed in the name.
  Please replace all spaces with underscores " _ " before transferring.
- Similar names have to have a difference within the first 12 characters.

Follow the onscreen instructions!

Sound file Player Output

Selects the stereo output for the sound files.

!!! ***Attention (!)****: If the digital SPDIF-Out is activated all analogue stereo outputs carry the same signal.*

VI.) Edit Mode

1) General

Even though all presets are set up carefully to sound and behave as close as possible to the original instruments there might still arise the need to occasionally adjust the instruments according to your own taste, the musical requirements or your own individual playing style.
This can be done in [**Edit**] mode. This mode can be entered by moving the joystick to the right [►] twice. Press [**OK**] to activate it.

Navigation is done with the **joystick** [◄] (left) and [►] (right) so all sub menus can be accessed. The **function keys** underneath the display allow activating the parameters directly.
The **joystick** [▲] (up) or [▼] (down) changes the values. Holding the joystick in any of the extreme positions scrolls continuously through the values. The control dial on the right hand of the remote unit can also be used to enter values.

Pressing a **function key** twice toggles between the current value and the default value.

Holding a **function key** for several seconds recalls a copy function that allows duplicating the current parameter and its current value to a range of other presets within this user bank. This also allows resetting the current parameter to the factory default value. During the upcoming dialog you can specify whether you want to copy or restore and set the starting and ending preset to where you want to copy / restore this parameter.

Edited presets can be stored to any user banks by pressing [**OK**] while in [**Edit**] mode. This way you can come up with several variations of the same sound that can be stored to individual preset locations.

You can leave [**Edit**] mode by pressing [**OK**] if you want to save your edits or by pressing [**Escape**] if you want to abort without saving the changed preset.

XPression uses virtual controller numbers from 128 to 134 internally for aftertouch (128), Pitchbend (129), microphone dynamic (130), normal internal dynamic (132), breath vibrato (133), bite or aftertouch vibrato (134) and individual pitchbend up / down (135 / 136).

2) Parameter

Select Edit Channel

selects the channel to be edited.

While on the main page the Edit Channel can be selected by pressing the dial on the right and holding it. Keep holding and select the desired channel.

Modwheel (CC1) Assignment

This assigns the function of the incoming MIDI controller 1 (CC1).

The range can be limited or expanded with “minimum” and “maximum”. The range can even be expanded to twice the range that MIDI allows. In most cases this doesn’t make any sense, though. Watch out for unexpected behavior when going over „127“.

When the modwheel is moved XPression will show the incoming value on the right side of the display.

The bottom line will show a description of the assigned MIDI controller. A * means that XPression is able to use this CC number.

The internal controller CC134 is used for direct vibrato with bite / lip control or aftertouch.

Aftertouch Assignment

assigns the function of incoming aftertouch including range.

Alternative Dynamic Controller

overwrites the standard dynamic controller that is assigned fort his MIDI input.

Controller Reassign – Copy or Replace

Decide here if you want the original CC message to be replaced or copied after transforming.

MIDI Controller A – D Redirection

Here you can remap four midi controllers (before modulation and aftertouch assignment)

Source – sets the source controller.
Destination – sets the destination controller.
Minimum – sets the minimal value of the destination controller.
Maximum - sets the maximal value of the destination controller.

Sustain Pedal Assignment

Here you can assign a function to the sustain pedal (incoming MIDI CC64).

- **Sustain** corresponds to the normal hold pedal of a piano. The value is irrelevant.

- **Portament**o switches the portamento function on for as long as the pedal is pressed. A value between 0 – 127 sets the relative duration of the glissando between the notes. “0” is off - “127” equals the full value that is set up for the portamento time.

- **Mono Retrigger** repeats (only in monophonic mode) the same pitch even when playing different midi notes. Use it to repeat notes quickly or to simulate alternative fingerings on a wind instrument. The value is irrelevant.

- **Mono-Poly** switches the monophonic mode to polyphonic as long as sustain is pressed.

- **Mono-Poly+Sustain** allows polyphonic playing with sustain in a monophonic preset.

Vibrato (LFO)Settings

Amount – sets the stored LFO vibrato intensity.
Speed – is responsible for the speed of the vibrato.
Delay – makes the vibrato fade in within a certain amount of time.
Maximum – sets the maximal intensity of the vibrato.

Dynamic -> LFO Vibrato Amount and Vibrato -> Pitch

Lowers the LFO vibrato intensity at lower levels.

The value for Vibrato -> Pitch limits pitch modulation altogether. This is valid for both LFO and Bite/Aftertouch vibrato.

Dynamic Vibrato Settings (Breath and Bite / Lip-Vibrato)

With the Dynamic Vibrato you can be create vibrato by variations of the incoming dynamic controller. For wind instruments this is usually referred to throat or diaphragm vibrato. These are the available parameters:

Maximum – sets the maximal intensity.
Gain – boosts low values (similar to a compressor with auto gain).
Overtones – sets the influence of vibrato to the sound (only for dynamics – not lip/bite).
Volume Compensation – compensates the volume when using dynamics/breath to achieve more pitch and sound variations in relation to the level changes.

If Dynamic Vibrato is generally not used at all you could set this value to „0“ to save computation time.

Dynamic / Breath vibrato uses the internal CC133. Bite vibrato CC134.

Direct Vibrato Source

This parameter configures the direct vibrato source to be used. Choices are dynamics / breath or the internal MIDI controller 134 (bite / lip or aftertouch) or both. Using both might lead to undesired results in some cases.

Dynamic -> Sound Range

Minimal Dynamic
This limits the dynamic sound response on the bottom without affecting the volume range.
The default value is 0. Increasing this value will result in changing the sound and attack behavior to correspond to a sound that is played at a higher volume.

The sound and feeling will become „harder".

Maximal Dynamic
This limits the dynamic sound response on the top without affecting the volume range.
The default value is 127. Decreasing this value will result in changing the sound and attack behavior to correspond to a sound that is played at a lower volume.

The sound and feeling will become „softer".

Mono - Poly Settings

polyphonic – allows polyphonic playing.
monophonic + polyphonic – allows monophonic legato playing while allowing polyphonic playing if several notes are pressed at the same time.

monophonic – is optimized for monophonic playing and allows the best legato playing as well as many special pitch "tricks" as shown in the Pitchbend tutorial.

☺ *Hint:* *Pressing the sustain pedal (MIDI CC 64) allows polyphonic playing even if a monophonic mode is activated.*

Sample Filter Mix and Filter Resonance

Here you can adjust the mixing proportion between the filtered and unfiltered sound.

Minimal Dynamic Filter Mix
This sets the ratio between the filtered and unfiltered portion of the sound at minimal dynamic. "0" means 100% filtered sound while "127" is completely unfiltered.

Maximal Dynamic Filter Mix
This sets the ratio between the filtered and unfiltered portion of the sound at maximal dynamic.

Minimal Dynamic Filter Q
This parameter sets the amount of filter resonance at minimal dynamic.

Maximal Dynamic Filter Q
This sets the filter resonance at maximal dynamic.

Sample Filter Range Dynamic / Envelope Settings

Offset – sets the lowest filter frequency.
Dynamic – controls the impact of the dynamic controller to the filter frequency.
Envelope – regulates the range of the envelope to be applied to the filter frequency.
Retrigger – affects the envelope retriggering behavior when playing legato.

Sample Filter Envelope

This controls a standard synthesizer envelope for the filter cutoff of the sample engine.
(*The analogue synthesizer uses his own filter envelope*)

Attack – time to reach the peak level of the envelope
Decay – time to reach the sustain level
Sustain – level to hold the note until the note off is received
Release – time after the note off for the envelope to drop back to the initial level

Dynamic -> Volume Range

This can compensate the dynamic curve from -12 dB to +12 dB in case it has changed by editing certain sound parameters.

Brass Overtones

This adds overtones while playing *forte* (mainly for brass).

Overtone-Level – sets the volume.
Overtone-Tune – sets the frequency response.

Pitchbend to Volume & Overtones

Sets the influence of the pitchbend to volume and additional overtones.

- **uVol** - sets the volume change for pitchbend up
- **dVol** - sets the volume change for pitchbend down
- **uOvt** - sets the overtones gain on pitchbend up
- **dOvt** - sets the overtones gain on pitchbend down

Overdrive Settings

This is an overdive / distortion module.

- **mix** - blends between the clean and distorted sound.
- **drive** - sets the drive of the distortion.
- **LpF** - this regulates the frequency of the lowpass filter of the distorded signal.
- **treble** - adds higher frequencies above the lowpass cutoff frequency.

Partial A + B Volume

With these parameters the levels of two individual overtones can be adjusted.

Partial A/B Number – selects the partial number of the overtone series.
Partial A/B Level – sets the volume of this overtone.

Doubling

This allows doubling of the instrument without the need of a second voice by introducing a small delay and pitch modulation while setting the pan position to hard left / right.

Doubling – activates the function.
Minimum – sets the minimal delay in milliseconds.
Range – defines the time window in which a random delay will take place.

Volume Settings

The volume controller (MIDI CC7) stores the basic level of the instrument.
How much attenuation CC7 actually provides be set up in [**Global**] „Control 7 volume range minimum“.

Volume-Trim can attenuate or amplify the volume of the preset from -48 to +12 dB. This is independent of the CC7 setting.

☺ *Hint:* *Use this to correct levels after editing or to set an instrument to solo or background level. You might want to copy the preset to two different locations for the latter.*

Velocity Limit

Sets a velocity limit for the minimum and maximum velocity.

- **vMin** - sets the lowest possible velocity. Values are scaled between vMin and vMax.
- **vMax** - sets the highest possible velocity. Values are scaled between vMin and vMax.
- **LegDamping** - lowers the velocity on legato playing (mainly for guitars).

Dynamic Range & dynamic Attack Time

Dynamic Range – sets the impact of the dynamic controller to volume between 0 and 100%.
Dynamic Attack – extends the attack time of the volume envelope at minimal level in ms.

Sample Starting Point

Gives you the option of cutting off the attack and starting the sample at the loop starting point.

Sample Volume Envelope ADSR

This takes care of the automatic level changes over time. Especially attack and release time with a standard synthesizer ADSR envelope for the samples.

(*The analogue synthesizer uses its own volume envelope.)*

Attack – attack time from 0 to the maximal level of the envelope in milliseconds
Decay – decay time in milliseconds until the sustain level is reached
Sustain – level that is being sustained until the note is released
Release – time of the fade out back to 0 after the note has been released

Legato Note Transitions

This sets the alternative attack and release times for legato transitions when the preset is set to a monophonic mode.

Legato-Attack – legato attack time in milliseconds
Legato Overlap Time – overlap time of the last note
Legato Pitch Time – portamento time for legato transitions
Legato Sample Start – starting point of new notes when played legato

Legato Portamento Time Key Follow

- **BpLO** - legato portamento time breakpoint lo - sets the lower key limit.
- **mult** - sets the multiplication factor of the lowest note (BpLO) of the portamento time.
- **BpHi** - legato portamento time breakpoint high - sets the upper key limit.
- **Mult** - sets the multiplication factor of the highest note (BpHI) of the portamento time.

Extra Attack Threshold

Here you can set the breakpoint between the low and high “extra attack envelope”.

Extra Attack Envelope

Allows setting an auxiliary envelope for the attacks separately for lower and higher dynamics.

- **vlHi** - xtra attack level (upper dynamic range)
- **tmHi** - xtra attack time (upper dynamic)
- **vlLo** - xtra attack level (lower dynamic)
- **tmLo** - xtra attack time (lower dynamic)

MIDI Octave Shift

Sets the default octave offset from -3 to +3.

This parameter can be changed in realtime with CC88 (octave minus), CC89 (octave normal) and CC90 (octave plus).

Mix Parameter Settings

Volume – sets the volume of the sample sound.
Panning – sets the stereo panning.
Transpose – transposes the instrument.
Variation – uses a sample offset which is not having an effect on all sounds.

Key Range

You can limit the note window. This is useful for creating keysplits.

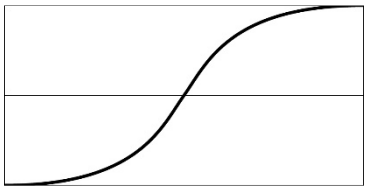
Lo – sets the lower key limit.
Hi – sets the upper key limit.
TEST: shows the currently played note number for reference only.

Pitchbend Range Settings

Limits the pitch bend range up or down individually in steps of 10 cents.

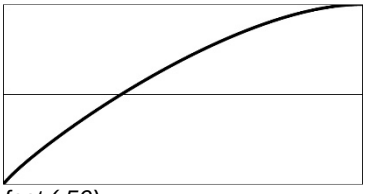
- **down** pitchbend range down
- **up** pitchbend range up
- **crv** pitchbend curve. Negative values produce a smooth curve around the center while positive values produce a harder curve.

Smooth (-50)

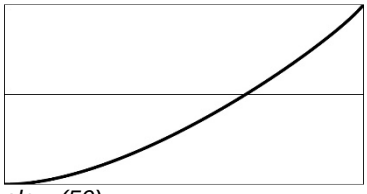


hard (50)

- **KfCrv** pitchbend range keyfollow curve. A negative value will cause the pitchbend range to expand faster while a positive value makes it expand slowly.



fast (-50)



slow (50)

Pitchbend Range Keyfollow

Sets up the key window from the lowest to the highest note that gets affected by the pitchbend range compression or expansion. Notes outside this window use the lowest or highest value.

- **BpLO** - pitchbend range breakpoint lo (sets the lower limit)
- **mult** - sets the multiplication factor of the lowest note (BpLO) for the pitchbend range.
- **BpHI** - pitchbend range breakpoint high (sets the upper limit)
- **mult** - sets the multiplication factor of the highest note (BpHI) for the pitchbend range.

Scale Detune

This allows a microtonal detune of individual notes inside a scale. The scales themselves have to be edited in [**Global**] “Scale Detune Setup”.

Active – activates the microtonal tunings.
Bank – selects a factory or user tuning.
Preset – selects one of the 128 presets available in each bank.
Key – sets the root of the scale.

External MIDI Instrument Activation

It is possible to control an external midi sound generator from the first MIDI out. Its audio output can be mixed to XPression’s internal sound by feeding it into the line input without latency.
Set up XPression here to use the internal, external or both sound sources.

External MIDI Instrument – Settings 1

The following parameters will be sent to the midi out when a program change is received:

Program – Patch selection. „NoPgm“ does not send any MIDI program change.
Volume – sends the volume as CC7 to the output. „Org“ does not send anything.
Pan – sends the panning as CC10. „Org“ does not send anything.
Transpose – shifts the note numbers of the outgoing MIDI notes.

External Instrument – Settings 2

Dynamic Controller – remaps the internal dynamic controller to CC2, 7, 11 or aftertouch.
Channel – sets the external MIDI channel.
Lo – limits the key window on the lower limit.
Hi - limits the key window on the upper limit.

Dynamic Type

sets the preset up for a velocity type instruments (like e.g. piano) or dynamic instruments (like a wind instrument).

Breath Noise Amount

adds breath noise for wind instruments.

Amount – sets the volume while sustaining the note.
Color – changes the frequency response of the noise.
Attack – sets the attack level for non-legato playing.
Bend – sets the influence of Pitchbend to the noise level

Growl Settings

Gives a rough sound to instruments like saxophone normally caused by simultaneous singing.

Growl sets the level
Maximum scales the level as well as CC80 for external control.
On Dynamic determines whether the level follows the general dynamic.

Multiphonics Settings

Sets the maximal influence of CC81 to create multiphonics.

Minimum – defines the minimal level of the effect.
Maximum – limits the maximal effect level.
AutoMultiphonics – produces automatic multiphonics or „screams“ starting at a certain pitch up. This pitch depends on the parameter „**Fundamental**“.
Mode – decides if the lower part will be modulated with two (full) or only one (hi) note. The upper range will always be modulated with two notes.

Harmonic Dirt Attack

This will create additional harmonics during the attack of the note. These are created in a random manner according to what would be possible or probable deviations of overtones above or below the current note position in relation to the instruments range. The volume can be set separately for legato and non-legato.

Harmonic Dirt (Sustain) Settings

This will create additional harmonics during the sustained part of the note in a similar way than the “harmonic Dirt Attacks”. The range in which this will happen depends on the „**Fundamental**“ parameter.

- CC82 is the preset level of CC82 that modulates the effect in realtime.
- Max sets the maximal influence of CC82.
- Random Minimum sets a minimal random value.
- Random Maximum sets a maximal random value.

Instrument Fundamental Note

This defines the fundamental of a wind instrument. For woodwinds this is usually fingered low C. For Brass this is the lowest C (with no valves pressed) above the pedal note. Depending on the transposition this note will vary.

Fundamental – sets the fundamental of the instrument.
Type – defines whether it is a woodwind or brass instrument.

Effect Sends

Reverb – is the reverb send level.
Ambience – controls the ambience send level.
Chorus – sets the send level to the chorus.
Delay – defines the delay send level.

☺ *Hint:* *The returns level and mute of these effect units can be globally edited in [**Global**].*

Random Pitch Detune

Random Detune causes slight variations in pitch that will let the instrument sound more naturally.

Attack – defines the maximal drift at the beginning of the note.
Fast – sets very fast pitch changes.
Slow – causes slow pitch variations.

Autotranspose Interval

At this place you can define an interval that is used for transposing the instrument if the function „Autotranspose“ in the [**Global**] menu is activated. This can be useful if reading original music of changing transposing / non transposing instruments without having to touch any other transposition setting.

Portamento Time

By sending the MIDI controller number 5 it is possible to achieve a Portamento or glissando effect between two notes. The shown value stands for the time in milliseconds. The addition “no Attack” cuts off the attack portion of the sample.
With increasing values of CC5 you can continuously increase the portamento duration from „0“ to the assigned maximal time.

When Pitchbend is outside the center position Portamento will be activated automatically.

☺ *Hint:* *In [**Global**] you can define the width of this Pitchbend center.*

Voice Synthesizer

The Voice Synthesizer can recognize pitch information from a connected microphone and translate it to internal MIDI information. This in return can trigger an internal monophonic synthesizer. Polyphonic audio signals cannot be analyzed.

Samples can be triggered as well but are – due to latency – limited in use.

Active – enables pitch recognition from the microphone and assigns it to the synth or the current sample preset.
Preset – selects a synthesizer preset.
Octave – determines the octave range.
Volume – sets the level of the synth.

Switch MIDI channels with CC66

CC66 can be used to switch between MIDI channel 1 and either Ch02 or Ch09 in various ways with or without holding the other channel’s note(s). Switch all notes off by pressing CC66 twice.

- **not active**
- **switch to channel 2**
- **switch to channel 9**
- **switch to channel 2 and hold channel 1** - This allows building chords on channel 1 and switch to channel 2
- **switch to channel 9 and hold channel 1** - This allows building chords on channel 1 and switch to channel 9
- **switch to channel 9 and hold Chord-Mapper down** - This allows building multitimbral chords with the Chord-Mapper moving down channel by channel
- **switch to channel 9 and hold Chord-Mapper up3** - This allows building multitimbral 3 voice chords with the Chord-Mapper moving up channel by channel
- **switch to channel 9 and hold Chord-Mapper up4** - This allows building multitimbral 4 voice chords with the Chord-Mapper moving up channel by channel
- **switch to channel 9 and hold Chord-Mapper up5** - This allows building multitimbral 5 voice chords with the Chord-Mapper moving up channel by channel
- **switch to channel 9 and hold Chord-Mapper up6** - This allows building multitimbral 6 voice chords with the Chord-Mapper moving up channel by channel

4 Band Equalizer

This allows changing the volume of four predefined EQ bands in Steps of 1 dB.

Keysplit Activation

This creates monophonic or polyphonic keysplits or layers with two instruments. This function is available on channel 1 and 9 only. The second patch is located one channel above the first one. Respectively channel 2 or 10.

Split – activates this function.
Bank – sets the preset bank of the second instrument. Only the current user bank or the factory banks are available. Other user banks cannot be used to avoid errors when banks are moved.
Preset – selects the sound of the second instrument.
EDIT – gives access to more parameters as described below. Softkey 4 and [**OK**] to enter.

Keysplit A - Settings

A-Lo – sets the lower key limit for the first sound.
A-Hi – sets the upper key limit for the first sound.
Transpose – shifts the note numbers the first sound up or down.
Variation – recalls a sample variation. This can be useful to avoid phasing when doubling the same sound.

Keysplit B - Settings

This contains the same parameters as Keysplit A for the second (+1) midi channel.

Keysplit Volume and Panning

Volume A / Volume B – sets the volume for both instruments.
Pan A / Pan / B – sets the stereo position for both sounds.

Keysplit Detune and Pitchbend

Detune A / Detune B – sets a detune for both sounds.
Pitchbend A / Pitchbend / B – multiplies the originally programmed pitchbend range.

Keysplit Controller Handling

Here you can specify which incoming CC messages will be forwarded to the second channel.

Do not copy any CC – does not forward any controllers.
Copy selected CC -> B – copies only selected controllers.
Redirect all CC -> B – sends all controllers to the second channel and not to the first one.
Clone all CC -> A+B – copies all CC messages to both channels.

Keysplit Controller A – C Redirection

Source – sets a controller number to be forwarded.
Destination – sets the destination controller number fort his message on the second channel.
Clone Channel – allows the controller to be used only on the second or on both channels.

Chord-Mapper Main Settings

This menu item activates the Chord-Mapper which allows polyphonic multitimbral playing with a monophonic MIDI instrument input.

With the Chord-Mapper it is possible to assign up to 6 notes on separate MIDI channels for each incoming note. These channels are located from the third to the eighth channel above the original input channel. This means channel 3-8 when using channel 1. Possible input channels are 1 and 9. This means Chord-Mapper triggers chords stored on the preset of channel 1 and sends them to channel 3-8. The original note on channel 1 does not sound.

The „external“ mode can forward up to six incoming notes on channel 1 to six different MIDI channels as long as they are played at the same time (*within 30 ms*).

☺ *Hint:* *With the Synthophone you can send harmonies like this on a single channel to save MIDI bandwidth.*

Active – selects the available modes:

Full uses one of the internal 1280 full key range maps.
External splits incoming chords on channel 1 to different MIDI channels.
Single uses only the chord stored at note 60 (middle C) and transposes it parallel. By using offset you can use a different source note chord.
Octave repeats the chord recorded to note 60-71 in all octaves.
Rotate rotates between 2 to 12 different chords stored from note 60 (middle C) up.
Rotate Random rotates randomly between the same 2 to 12 different chords as above.

Bank - selects the [**User**] bank where the Chord-Mapper preset is located.
Preset – selects a preset. Press [**OK**] to actually load this preset.
Reset / Store / Edit – choose one of these functions and execute with [**OK**].

Reset erases all programmed notes (without storing the changed preset)
Store saves the active preset in the current state to disk. It is possible to select another destination preset before without pressing [**OK**]. You will be asked to enter a new name. Confirm with [**OK**].
Edit takes you to further options of Chord-Mapper.

Proceed as follows to enter a new map or to edit an existing one:

- Select the mode plus the preset number and bank.
- If desired reset the map to erase all existing notes.
- Make sure that voices have been activated beforehand.
  (the easiest way for doing this is to start out with an already existing Multi Preset)
- Press a connected sustain switch (remote unit or MIDI) 3x quickly or press onto the dial on the right hand of the remote.

Now you will be asked to set the base note.

For “internal” this can be any note of the piano range between MIDI note 24 and 108. For “single” or “octave” you need to choose middle C (MIDI note 60).

The base note is the note that will hold and trigger the first chord that is recorded. All following chords will automatically get assigned to the next chromatic note up. This way you can recall the recorded chords one after each other by playing a chromatic scale up from the base note.

Now play the first chord by arpeggiating downwards to set the correct voice order and hold the notes if you are using a keyboard. When using a monophonic instrument you can press the sustain pedal until the chord is completed.
By releasing all notes or the sustain pedal the chord is stored to the base note. You will now be asked to enter the next chord. On the lower line of the display you can always see the target / trigger note to where the current chord will be stored.

When done entering all chords this way press sustain 3x quickly or press onto the dial of the remote. Note entry is finished and you will see “done” for a short moment.

In case that you have made a mistake you can stop and restart from there by entering this note as the new base note. This way you can also replace single chords if you have changed your mind about the voicings.
Chord-Mapper does not erase any chord that you don’t overwrite explicitly.

Once you have exited record mode you can listen to your arrangement immediately by playing a chromatic scale from the base note up.

Please notice that the voices that are used have to be activated beforehand in order to hear anything.

If you are happy with your arrangement you can store the edited preset onto any preset number and (user) bank.
Please read the section “Store” above about this.

Rests can be entered with a „rest note“ which is defined in [**Global**] / **Chord-Mapper Pause**.
These rest notes can be used to enter e.g. only a trombone note in a section with trumpet, tenor sax and trombone. In this case you would play a rest note for the first two instruments (trp & ten sax) while holding sustain and then – without releasing sustain – play the trombone note.

With this method you can build complicated polyphonic arrangements.

Chord-Mapper Mix and Transpose Settings

Volume – sets the volume for all voices
Panning – sets the stereo pan position of the voices. There are optimized presets for different numbers of instruments in several variations like narrow (N) and wide (W). The variations 1 or two define whether the upper voices are in the center or more on the outside on the stereo panning
Offset – moves the base note from where the chords will be played
Transpose – transposes the chords to different keys

Chord-Mapper Vibrato and Random Settings

Since individual instruments usually play their own vibrato it is strongly recommended to use LFO vibrato with modulation (CC1).

Vibrato – LFO vibrato amount. „Org" uses the value stored in the preset
Random Pitch – random detune to achieve a better „live" feeling
Random Timing – adds random timing to the middle voices

Chord-Mapper Sound Editor 1

Voice – select voice number
Bank – preset bank of the selected voice
Preset – preset of the selected voice
Active – turns the voice on/off or sets it to SOLO

Chord-Mapper Sound-Editor 2

Voice – select voice number
Volume – volume of the selected voice
Variation – sample variation of the voice. This eliminates phasing problems when playing in unison with the same preset.
Active – turns the voice on/off or sets it to SOLO

Chord-Mapper Sound-Editor 3

Voice – select voice number
Pitchbend Down – Pitchbend DOWN range of the voice
Pitchbend Up – Pitchbend UP range of the voice
Active – turns the voice on/off or sets it to SOLO

Chord-Mapper Sound-Editor 4

Voice – select voice number
Octave – chooses a octave transposition for the voice
Active – turns the voice on/off or sets it to SOLO

Virtual Analogue Synthesizer Activation & Mix

XPression contains a complete virtual analogue synthesizer with two oscillators. This synth can be used simultaneously with the sample sounds.

!!! ***Attention (!)****: This is very demanding on the machine. In case of such dual sounds it is strongly recommended to reduce polyphony to six voices as described below.*

Select – samples or analogue synth or both.
Analogue Volume – volume of the analogue synth.
Sample Volume – volume of the sample engine.
Edit – takes you to further parameters after pressing [**OK**].

Preset Voice Limit

You can set a voice limit per preset to prevent overloading of the unit. The voice limit will be valid for the 8 channel voice block that you are playing and overwrite the global limit that is set up in [**Utility**].

Guitar Mode

This is still under development.

Edit Preset Name

Let's you change the name of the preset.

Navigate with left [◄] and right [►]. Change the name with up [▲] or down [▼] or with the dial.

4) Store Edited Presets

Edited presets can be stored to [**User**] banks (while in [**Edit**] mode) by pressing [**OK**]. Storing to [**Factory**] banks is not possible.

The display will show "store preset?" Confirm with [**OK**].
Then you have the option to select a new preset number and bank with up [▲] or down [▼] or by using the control dial. Confirm twice with [**OK**]. The Preset is stored now!

With [**Escape**] you can abort the operation at any time.

☺ *Hint: To reset a preset to the original state select the preset from the [**Factory**] bank. Then use [**Store**] to copy it back to the desired [**User**] bank.*
*You can copy an entire preset bank by using [**Bank Copy**] as described in chapter V.) 3.*

5) Discard Changes of Edited Presets

If you are not happy with the edits that you made you can discard them by pressing [**Escape**]. All changes will be lost.

VII.) Store

Use store to copy an existing preset to another location.

Copy Presets

By moving the joystick three times to the right you will reach the menu entry [**Store**]. Press [**OK**] to copy the current preset to another location.

The display will show “store preset?” Confirm with [**OK**].
Then you have the option to select a new preset number and bank with up [▲] or down [▼] or by using the control dial. Confirm twice with [**OK**]. The Preset is stored now!

With [**Escape**] you can abort the operation at any time.

☺ *Hint: You can copy an entire preset bank by using [**Bank Copy**] as described in chapter V.) 3.*

VIII.) Global Settings

1) General

These are settings that affect the entire instrument and not the individual presets.

2) Enter Global Settings Mode

To change the [**Global**] settings move the **joystick** from the main page to the right until you reach [**Global**] and press [**OK**].
You can leave [**Global**] mode with [**OK**] or [**Escape**].

Other than in preset [**Edit**] mode all changes will be stored no matter if you leave this mode with [**OK**] or [**Escape**]. In certain cases you can leave this mode only with [**Escape**]. This is when [**OK**] is needed for parameter confirmation.

3) Parameter

Program Number Mapping

With these maps you can assign incoming MIDI program changes to the internal preset numbers. There are nine program maps available in total.

Channel – selects the channel to assign the program map to.
Program-Map – selects the map to be assigned to this channel.
[**Edit**] + [**OK**] – takes you to the editor to manually change assignments.

Editor: On the left side of the display you set the incoming MIDI program number. This can also be set by an incoming MIDI program change.
On the right side you can select the target preset with the joystick up [▲] or down [▼] or by using the control dial. Confirm with [**OK**]. Without pressing [**OK**] the assignment will not be stored.

The assignments can also be done on the main display page:

Choose a MIDI program number by sending an external program change or by selecting it with the **joystick** and pressing [**OK**]. The MIDI program number will be shown on the bottom left.

Now select a preset with the control dial on the right and press the dial.
The preset is now assigned to the last selected MIDI program number.

☺ *Hint: Make sure a program map is activated!*

Copy Program Map

Select the source and the destination program map and confirm twice with [**OK**].

Program Change Delay Time

This sets a delay time in milliseconds for an incoming MIDI program change to make sure that the bank change can be processed before the program change.

☺ *Hint: A higher value than "0" is only needed when sending bank changes (CC0) before a program change!*

Key-Remote Activation

When KeyRemote is enabled it is possible to control the front panel of the remote from MIDI notes. The LCD display can be seen on the monitor output so no remote is needed if desired.

Mode1: Pressing once allows storing and recalling the preset memories 1 - 8 starting on the base note. Short to recall long to store the current patch number.
The lowest display line will show a “p” as the first character.

This mode will be automatically deactivated after storing or recalling a preset memory.

Mode2: Pressing twice will show a “d” for direct patch number entry as described **XI) Special Features**.

This mode will be automatically deactivated after storing or recalling a preset memory.

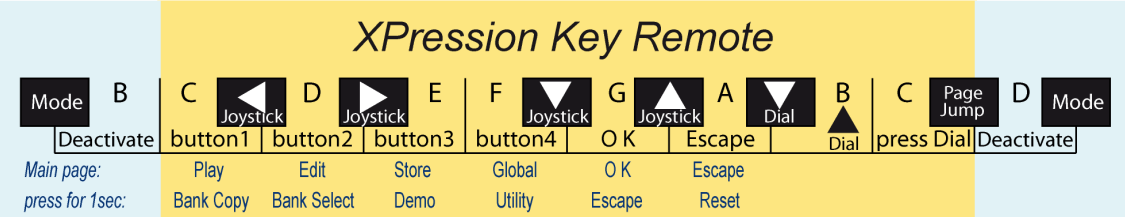
Mode3: Pressing three times enables the key remote. It is possible to enter a base note which corresponds to lo C on the graphics below.

The “Deactivate” key deactivates the key remote.

The parameter base note sets the note for “button1”. Default is low C (MIDI note 36).

The two mode buttons (lo Bb and B) can be placed below or above the function keys by selecting “activation” “below” or “above”. Default is “below”.

In this case “Mode” would be hi Eb and “Deactivate” would correspond to hi D.



The Key Remote can be enabled to the default settings by playing these notes before any other notes after powering the unit up:
Middle C (60) - D - E - Db - Eb - F - G [Low C (36) - D - E - Db - Eb - F - G on older versions]

This can be useful if the remote is currently not available or the cable is missing.

Reverb

Reverb:	controls the return level of the reverb.
Active:	switches the reverb on or off.
Program:	selects a reverb preset.

Ambience

Ambience:	controls the return level of the ambience.
Active:	switches the ambience on or off.
Program:	selects a ambience preset.

Delay

Delay:	controls the return level of the delay.
Active:	switches the delay on or off.

MIDI Port Offset

Check if all MIDI inputs are working. Default offset is “**0**”.
Double-check with the MIDI-Monitor in [**Utility**] to see the numbering.
(Ch1-16 = input 1, Ch17-32 = input 2, Ch33-48 = input 3 (USB), Ch49-64 = input 4 (USB)

MIDI Input Channel

You can assign an individual MIDI channel for each of the four MIDI inputs MIDI IN 1 / 2 und USB (= 3 / 4). „Original“ uses all 16 channels.

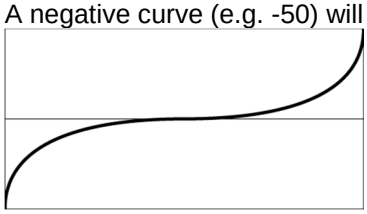
Copy CC65 -> CC05

Some instruments like the Synthophone or Casio DH-100 use CC65 for portamento instead of CC05. For these instruments you can copy CC65 to CC05 by activating this option.

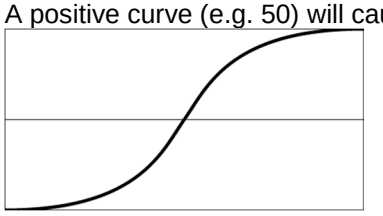
Pitchbend Curve

Sets a curve for processing the incoming pitchbend data.

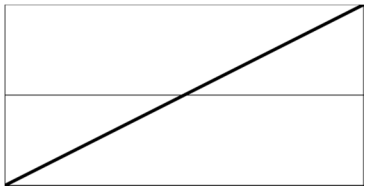
A negative curve (e.g. -50) will cause smaller pitch changes around the center.



A positive curve (e.g. 50) will cause more significant pitch changes around the center.



A value of “0” uses a linear curve and changes the pitch evenly over the full bend range.



Pitchbend -> Vibrato und Portamento Center Width

XPression can automatically create a portamento note transition if the pitchbend is not centered. At the same time it will switch off automatic LFO vibrato.

When using a reed style wind controller like the Synthophone or the Yamaha WX that is set to “Tight Lip” mode this can cause problems because it is quite difficult to keep the pitch centered perfectly at all times. Therefore it is possible to define how wide this zone is. A value between 16 and 32 should usually work. A value of 64 turns the function off completely.

This setting can be set separately for each input so different types of controllers can be used at the same time.

☺ *Hint:* *It is recommended to read the Pitchbend Tutorial to understand this function better.*

MIDI Note Delay

Set a delay for the note on messages in milliseconds. This makes sense if the used controller does not send usable velocity messages. It only works if the parameter “Velocity or Dynamic Controller” in [**Global**] is set to “dynamic”.

In this case the note has to be delayed by several milliseconds until the dynamic of the breath controller is at the full attack level. Then the dynamic value can replace the correct velocity.

The necessary delay time can be checked with the response of a percussive instrument like a piano or xylophone.

MIDI Note Off Delay

This parameter can delay note off notes only. This is a useful feature when recording with a windcontroller into a sequencer. In most cases phrases that were played legato will play back non legato because the sequencer reverses the note order. A setting of 4-5 ms should work.

In case notes are getting cut off this should be turned off again and manual editing is required.

Synthophone Note & Velocity Fix

If you play the Synthophone there is no velocity or usable dynamic information at the beginning of the note. This fix adds a small note delay to detect the correct dynamic information. To play velocity sensitive instruments like e.g. mallets “accurate” might be needed. Otherwise “fast” will be sufficient.

Percussive - Velocity or Dynamic Controller

uses the current dynamic level as velocity. For instruments that don't send usable velocity (like the Synthophone) this method can be used to achieve valuable velocity information. However, this works only in conjunction with "note delay".

MIDI Controller 4 (Pitchbend Down) reverse

reverses the values of an incoming MIDI CC4. This is useful if pitchbend down is controlled by an EWI with this MIDI controller. With a foot pedal you should leave it at the off position.

Edit Channel Selection on Main Page

When enabled you can select the current MIDI channel with the dial while pressing and holding it. This works only on the main display page.

MIDI Thru - Activation

Choose whether both MIDI inputs will always be sent to MIDI Out 1 (always on) or if the MIDI out is controlled by the parameters set up in the presets (use program settings) or if MIDI Thru is generally turned off (off).

„All Notes Off" - Filter

Can be set up to ignore the MIDI „all notes off" message, use it on individual channels or on all channels.

Retrigger Mode

This determines whether the note will keep playing or get cut off when the dynamics reaches a value of „0". It can also retrigger the note when using a keyboard with a expression pedal or breath controller.

- no retrigger	normal mode – sustains the note without re-attacking.
- turn note off only	not used.
- full retrigger	keyboard breath controller mode – turns the note off and retriggers it when the dynamic reaches a value higher than „0".

MIDI-Input Transpose

Here you can transpose the incoming MIDI notes before any processing takes place.

Transpose Settings

Transpose

sets the global note transposition in semitones.

CC74 can also be used to set the current transposition. Connect a footswitch to send CC74. Press the footswitch and play the note you want to transpose to relative to middle C (MIDI note 60). Release the footswitch and the transposition is set. Repeat the procedure and set it to middle C to turn transposition off again. You can see the transposition interval in the display.

You can now press button 2 and 3 simultaneously to jump directly to the Transposition Settings. Set the transposition with the dial and press onto the dial to return to the main page.

Auto-Transpose

Auto Transpose causes transposing instruments like trumpet or saxophone to play in their original transposition (e.g. B^b or E^b).

☺ *Hint:* *This might be useful if you are playing with original transposed sheet music.*
The transposition of the instruments can be adjusted in the preset editor.

Chord-Mapper Key Offset

allows chord-maps that repeat in octaves to be played in other keys.

This sets offset and transposition globally at the same time. If the original map was recorded in the key of e.g. C a value of -2 will allow you to play it in the key of Bb.

This parameter can be set in realtime with CC 73. Press and hold a pedal assigned to CC 73 and play a note relative to middle C (MIDI note 60) to set the offset. The lower line of the display will show the interval. Release the pedal – set!

This key offset may cause unexpected behaviour if it is used with any other Chord-Mapper modes. Make sure it is set to "0" when using full or single mode.

Chord-Mapper Rest Note

Select a note number that can be used as a „rest" while recording into the Chord-Mapper.
This note plays normally any other time.

Scale Detune Setup (Micro Tuning)

It is possible to tune the notes of a scale differently than the standard well tempered scale. This might be useful to play "old" music or ethnic music that does not use the standard western equal temperament.

All tunings are relative to the key of C.

Preset - sets up one of the 128 User presets to store your own tunings.
Note - selects the note number that is to be retuned in semitones up relative to C.
Tune - changes the tuning of the selected note in steps of one cent.
Store - stores the currently selected scale with all edits.

Scale Detune – Force Always

Always uses the last selected active microtuning preset until a new one is active.

Program Change / Bank Change Activation Mode (for use with the Akai EWI-USB)

If you are using an instrument that is not capable of sending MIDI program changes (like e.g. the Akai EWI-USB) you can use a "trick" to send such program changes anyway. Please read section **XI.) Special Features** for a description on how to execute this function.

This option can be activated here.

Program Change Channel

Here you can enable sending program changes to all 16 channels.
This is very useful for controllers that use more than one single MIDI channel like a harmonica.

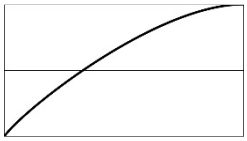
Dynamic Controller Input 1 - 4 Selection

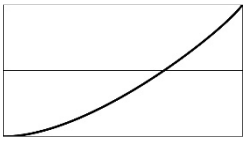
Dynamic-Controller

This sets the MIDI controller CC message to be used for the dynamics.
Possible is: 2=Breath Controller, 7=Main Volume, 11=Expression, Aftertouch and Microphone.

Curve - changes from a linear to a logarithmical curve. 25 - 30 is recommended in most cases.

Curve Type - sets a single curve or a double curve that is centered in the middle and mirrored on both ends.


single-negative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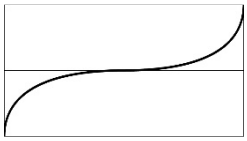
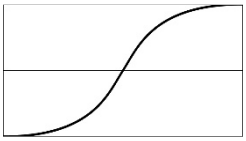

dual-negative


dual-positive

Dynamic Auto-Scale Activation

This function checks for the lowest and highest dynamic input and scales it to the full volume range of 0-127. This can be helpful for controllers that do not send the full dynamic range.

It can be set up separately for MIDI input 1 and input two.

Velocity Curve

Curve - changes from a linear to a logarithmical curve

Curve Type - sets a single curve or a double curve that is centered in the middle and mirrored on both ends.

Velocity Compression / Expansion

This lets you correct the velocity range of a connected keyboard to expand or compress its dynamic. This can be set up separately for all 16 MIDI channels.

Noise Attack – Level & Source (Breath Attacks)

With this setting you can globally adjust the level of the noise (breath) attacks in percent without having to edit them in the individual presets. The default value is 100%.

Ctl 7 Volume Minimum

This limits the effect that the MIDI volume controller 7 has to the range that is desired. Set it e.g. to 12 dB to fade between background level and solo level.

☺ *Hint:* *With the function „ignore stored volume“ the MIDI volume that was saved in the preset can be ignored so the current level of the pedal won't jump upon preset selections.*

Ignore Stored Volume (MIDI-Controller 7)

Here you can set up whether the MIDI main volume (CC7) will be recalled from the value that was saved with the preset. This prevents the current position of a connected foot pedal to be overwritten by the preset settings.

!!! ***Attention (!):*** *A wrong setting can cause volume problems if a connected foot pedal gets disconnected.*

Ignore Stored LFO Vibrato (MIDI-Controller 1)

With this parameter you can globally ignore the value that is stored for LFO modulation (CC1).

Reverse Sustain Pedal

This reverses the function of a connected sustain pedal (CC64) with a wrong polarity.

Eliminate Short Notes on Sustain

On wind controllers there is a good chance that some unwanted short notes are being held with the sustain pedal while building a chord. This function eliminates those “wrong” notes.

Set the minimum time for the wanted notes in milliseconds here.

MIDI Chanel Stereo Output Assignment

assigns the stereo output for each MIDI channel.

!!! ***Attention (!)****:If the digital SPDIF output is activated in [**Utility**] only one stereo bus is available. All output busses will be mixed down to the first stereo output in this case.*

Language

sets the language to English or German.

Menu Title Time

This parameter affects how long the title of the edit screen will be seen before it jumps to the parameter display.

Display 1st Line Content

On this page you determine what the first display line is showing. By default this is the preset of the edit channel but it can also be set up to show the presets of a fixed cannel number.

Display 2nd Line Content

On this page you determine whether the second display line is showing the current preset bank number, the current preset of the Edit channel or any other MIDI channel or the pitchbend of the edit channel.

Display 3rd Line Content

- "normal" shows the information about the current preset backing track
- "show dynamic" shows the current dynamics that you are playing (default)
- "show backing track" lets you select any backing track anytime from the main page without the need of having it programmed to the current preset beforehand.

Guitar Mode active

This sets up a special guitar mode that is currently still under development.

Expert Mode

This enables „expert mode" which gives access to an extended set of options and parameters.

Machine Master Volume

Master Volume – sets the overall volume of the unit in steps of 1 dB.
Master Mute – mutes the entire instrument.

☺ *Hint:* *This page can be reached directly from the main page by pressing button 1 + 4 below the display simultaneously. You can escape from this page also by simply pressing onto the dial on the right side of the remote unit. This will unmute the unit again.*

Out1 Mono-Stereo Settings

This sets the first stereo output to stereo or mono if you do not have a stereo amplification system. All other outputs remain stereo.

☺ *Hint:* *This can be used for mono monitoring while going stereo to a mixer or recording system as long as the outputs are set up to use only one stereo out in [**Utility**] "SPDIF Output On-Off".*

IX.) Demo

Move the joystick twice to the left [◄] until DEMO appears and press [**OK**]. The demo songs will be played one after the other.

You can use the joystick right [►] and left [◄] to forward or rewind to the next or last song.

[**OK**] or [**Escape**] stops the demo and takes you back to normal Play Mode.

X.) Utility

Utility contains a number of useful help functions and information tools.

Enter Utility: To enter [**Utility**] move the cursor from the main page to the left once until [**Utility**] appears and press [**OK**].

Exit Utility: Use [**Escape**] (= press and hold [**OK**] for 1 second).

Choose MIDI Controller

With this option you can carry out automatic setup of all global parameters for your MIDI controller. If you desire to make further adjustments or look at the parameters in detail you should activate Expert Mode in the [**Global**] menu.
Most of the settings are valid per MIDI input. However, some might overwrite settings of other inputs.

Mastertune

This sets the master tuning of the entire instrument in Hertz.

Save & Load <- -> USB All Global Settings

This lets you save and restore the entire folder with all [**Global**] and [**Utility**] settings to a USB drive. Follow the instructions on the display.

These files can be archived on a computer. It is possible to erase certain files from the folder for restoring only selected settings.

“Default” will restore all settings to factory default values. Reselect your MIDI controller after resetting.

Internal Backup – All Settings and Maps

Choose whether you want to make a backup or if you want to restore the current settings one of 5 user backup folders. Select the backup or restore number and press [**OK**]. Confirm with [**OK**] and all settings will be backed up or restored from any of the used folders.

As an option you can restore optimized default settings for the EWI, WX, Synthophone or MIDI guitar located in the backups 6-9.

Internal Backup of All Preset and Chord-Mapper Banks

Choose whether you want to make a backup or if you want to restore all user preset banks and maps to one of 5 user backup folders. Select the backup or restore number and press [**OK**]. Confirm with [**OK**] and all preset banks and maps will be backed up or restored from any of the used folders.

As an option you can restore factory banks located in the backups 6 to the user banks.

WARNING: All user banks will be overwritten by doing so!

Number of Voices

This sets the number of available voices for the first and second group of 8 MIDI channels. Be careful as it is possible to set up more voices than XPression can handle without overloading its engine. Playing more than 8 voices will lead to problems. This setting should be set to the lowest count possible when playing with two controllers simultaneously. In certain cases – like when using the Chord-Mapper – it might be necessary to reduce the voice count within the presets to achieve a clean sound.

Latency Settings

Here you can set the latency that XPression needs to play its voices without any artifacts. It is strongly recommended to leave this setting at the recommended default setting of 6 milliseconds.

Line Input Level

XPression provides a line input with standard RCA connectors that can be used as an alternative mic input. It can also serve to send audio data to the first stereo output without adding any additional latency e.g. to mix a second synth to the internal sound of XPression. When this line input is not used it is recommended to turn the volume to „0“ to avoid unnecessary noise at the output.
The line input does not appear at the digital SPDIF output.

Search for HID Instrument

This is experimental – don't use it!

Remote Pedal 1 / 2 Settings

There a two stereo ¼ inch jacks at the remote unit for connecting foot pedals as well as another one for 2 footswitches and a connector for a breakout cable to connect 4 more footswitches. Take a look at chapter **III.) Inputs & Outputs**.

You can set up a MIDI channel and the controller number. The number in front of the MIDI channel refers to the MIDI input that the pedal is assigned to. In most cases the input assignment has no effect.

Pedal 1 Auto-Calibration

Leave it always on "auto". This is for testing only!

Foot Pedal Curve

This sets up the response of the foot pedals.

Curve - describes the logarithmical dynamic curve of the pedals

Curve Type - sets a single curve or a double curve that is centered in the middle and mirrored on both ends.

Footswitch 1 – 6 Settings

manages the MIDI channel and CC assignments of the six footswitches as well as the value range.

Transmit EWI-USB SysEx at Start Up & EWI-USB Reset

- no action sends no data to the EWI-USB at startup of XPression
- send SysEx sends the currently stored parameters to the EWI-USB at start up

OK -> Reset initializes the EWI-USB either to the Akai factory settings or to the optimized settings for use with XPression on pressing [**OK**].

EWI-USB Finger, Breath, Bite & Delay

EWI-USB Channel, Transpose & Pitchbend

EWI-USB Velocity, Breath2 & Bite2

EWI-USB Gain Settings

All of these parameters are responsible for the settings of the Akai EWI-USB windcontroller. Please check the relevant manual of the EWI-USB about the functions of these parameters.

Microphone Settings

- Lo Gain is the low threshold for the microphone to send data
- Hi Gain is the maximal value that is required for full level
- Curve describes the logarithmical dynamic curve of the mic signal
- Level shows the current value from 0 – 127

Microphone MIDI Channel

Sets the MIDI channel on which dynamic data of the microphone is being sent.

Microphone MIDI Output

Here you can determine whether the control values of the microphone will be sent to one of the two MIDI outputs.

Microphone or Line Input (for Voice Control)

This lets you choose the input which is used for Voice Control dynamics. The options are Microphone or Line In. For the microphone there are 3 gain levels available.

SPDIF Output On / Off

The digital SPDIF output needs to be activated to send audio signals. The SPDIF is activated only one stereo bus can be used instead of three. Only the first stereo bus is active but the other buses will be mixed together with the first one and distributed to all physical outs.

You can also select the number of available stereo buses here. If only one analogue stereo out is needed it is recommended to set it to SPDIF Off – 2 channels.

Global MIDI Controller Remapping

All incoming MIDI controllers, aftertouch and pitchbend can be mapped globally to other messages. In this place you can define whether you want to use one map for all channels or if you would like to remap data separately for all individual MIDI channels.

Global remapping is placed before the remapping that is available in the preset editor.

Set MIDI Control Remap

Here you can globally remap MIDI controller messages to other CC numbers.

- channel selects the MIDI channel (or all channels)to be edited
- active switches the remapping on or off
- source selects the source CC number
- destination selects the destination CC number

Copy Global Controller Map

Global controller maps can be copied between channels. By copying “reset” the map can be reset to the default values.

Press [**OK**] to execute.

CME WIDI-XU channel

Here you can select a channel for a CME WIDI-XU wireless MIDI receiver. EXPERIMENTAL!

MIDI - Monitor

Here you can monitor incoming MIDI data and foot pedals / footswitches.

This might be helpful to check the MIDI channel of your instrument. You can also see whether MIDI data is coming in at all or which Continuous Controller messages are received.

Use the dial to filter only certain data types like notes or CC messages.

Number of incoming MIDI Controller per Second

This shows the number of incoming MIDI Continuous Controller messages (including pitchbend) per second. Use this to check if your MIDI bus might be overloaded.

Authorization File – Save / Load

XPression needs to be authorized to the hardware that you are using. After upgrading the operating system or restoring from a drive image that was not saved from the internal flash drive it is necessary to restore the authorization file.

Here you can select whether you want to save or restore the authorization for your unit. Press [**OK**] and follow the instructions on the display.

It is recommended to save the authorization file immediately and copy it to a safe place.

Complete Internal Drive Backup to USB (bootable)

It is possible to make a backup copy of the internal 16 GB flash drive that contains the operating system, the software and samples as well as all data that was stored by the user.

This might be useful if the internal drive is not functioning anymore due to e.g. a power failure during updating. In this case you can start from the external drive and restore the internal drive.

Make sure you have a rather fast external USB 2.0 flash drive with a capacity of 16 GB at hand. Do not use a drive with a reading speed of less than 15 MB/s. The drive will be erased! It should not be used for anything else after the backup.

The backup cannot be interrupted and takes up to one hour on a fast drive (possibly a lot longer with a slow drive!). Make sure you have enough time available before starting! Do not power the unit off during backup or restoring in any case!

Connect the drive to any of the USB ports on the front or rear side. Do not connect any other USB devices during backup or restore.

Press [**OK**] and follow the instructions on the display. When the backup is done you will see a “finished” message on the display. Turn the unit off to test starting up from the backup.

When starting from the external drive you need to turn off the power supply of the internal drive by moving the switch on the rear side of the unit to the lower position. The switch is located next to the power inlet of XPression.

Start up from the external drive. Everything should work normally - only the startup time will be slower. If everything is working turn off the unit and remove the external drive. Put the switch back to the upper position. Start up again from the internal flash drive.

To restore the internal drive boot the system from the external drive (with the internal flash power supply turned off). Now set the flash power switch to the upper position to turn it on and repeat the same procedure as before when backing up to the external drive. The words “internal” and “external” will be reversed when restoring.

When done turn off the unit and remove the external drive. Restart from the internal drive.

You can make as many backup copies as you like. You can operate XPression from the external drive the same way as if it was started from its internal flash memory.

It is strongly recommended to create a backup immediately and keep it in a safe place.

Serial Number & Software Version

Here you can check the serial number and the current software version.
Please provide these two numbers to DynaSample when experiencing technical problems.

Software Update

BEFORE UPDATING CREATE A RELIABLE SYSTEM DRIVE BACKUP AS DESCRIBED ABOVE !
UPDATING WITHOUT BACKUP IS AT YOUR OWN RISK !

This can update the software of XPression. Please follow the onscreen directions.

Do not plug in the USB drive until asked to do so. XPression automatically restarts in update mode and will ask you to connect the drive.

Please read the ReadMe file which is included in the update for exact directions.

!!! **Do not turn off the unit in any case or unplug the power cord during the update procedure. This could permanently damage the internal flash drive!**

Service – not permitted!

This page is only to be used by DynaSample or authorized technicians.

XI.) Special Features

Pitchbend Program Change with the Akai EWI-USB:

With the Akai EWI-USB it is normally not possible to send MIDI program changes. However, a special method by using a pitchbend / note combination makes this possible anyway with XPression:

- Make sure you are on the main display mode and not in any edit mode.
- Do NOT blow into the breath controller respectively leave the expression pedal at minimal position.
- Move the pitchbend to the highest position.
- Now move very fast from the maximal to the minimal pitchbend position and stay there.
- The display will ask you to enter a program number now.

The notes C - A of any octave correspond to the digits 0 – 9. To enter program number 019 you need to play the notes C, C# and A while holding pitchbend in the same position. The numbers 20 - 99 can be entered with two digits all others need three digits.

The notes A# and B have a special function of „Program Down“ and „Program Up“.

After entering all digits the program change will be executed and pitchbend can be returned to the normal position.

To abort simply set pitchbend back to the center position.

The same technique can be applied both on an EWI or a keyboard. Make sure that the dynamic controller is always at “0” while entering the program change

Bank Change with the Akai EWI-USB:

Bank changes can be accomplished in almost the same way:

- Proceed in exactly the same way but move the pitchbend from the lowest to the highest position.
- You will be asked to change the preset bank now.
- Notice that the notes C - A have no function here. Use only B und A# for plus / minus.

After entering the new bank number pitchbend must be returned to the normal position.

To abort simply set pitchbend back to the center position.

XII.) Trouble-Shooting

- **The unit does not start up**
    - When turning XPression on you should see a startup message and after about 30 seconds the display should show the version number and then say “loading samples”. If the latter is not the case the power supply of the internal flash drive on the rear might be turned off.
      Please check the switch next to the DC power inlet and make sure it is in the upper position.

- **No sound!**
    - Are all cables connected correctly?
    - Is the power LED lit up and does the display on the remote control unit show any messages?
    - Is the amp powered up?
    - Is the Master Volume set to 0dB?
    - Is XPression still loading the operating system or sound library?
    - Play the demos to test the audio connections!
    - Use the [**Utility**] MIDI Monitor to check if any MIDI signals are coming in.
    - Is the dynamic controller at **XPression** the same as the keyboard / windcontroller is sending?
    - Send a MIDI program change to select another preset!
      Does the display reflect the program change?
      If NOT, check the MIDI cables and MIDI channels!
    - Is the function “Ignore Stored Volume (MIDI-Controller 7)” in the Global menu activated?
      Then turn it off, change the preset and try again.

- **I cannot play polyphonic on the keyboard**
    - The Preset is monophonic!
      Set in [**Edit**] the Mode to „polyphonic“ or „monophonic + polyphonic“.
      Alternatively for many presets you can press the sustain pedal (this function needs to be activated for the preset, though!).

- **Dynamics do not control volume or only volume without changes in timbre**
    - Make sure to set up the correct MIDI controller in the [**Global**] menu „Dynamic Controller In“ for the MIDI Input that you are using. All four MIDI Inputs can have an individual dynamic controller assignment.

- **The Akai EWI-USB is not staring up correctly (the green LED is not lit up)**

  The EWI-USB can cause problems when starting up. In such a case try this:
    - Unplug the USB cable and reconnect it to XPression during the startup screen.
    - If you connect the cable after the display message „loading samples“ you have to register the MIDI port first:

      Wait for a few seconds then execute “Reset”. New USB MIDI interfaces will be found and registered now. Moving the joystick left or right and back does the same thing.
    - Alternatively you could try to connect the EWI-USB via a powered USB hub. In some cases this improves the communication.

- **The Instrument plays in different keys**
    - Deactivate „Auto Transpose“ in the [**Global**] Transpose Settings.
    - Check the transposition in the [**Global**] Transpose Settings.

- **The instrument keeps playing wrong notes all of the time**
    - You should definitely practice more!

XIII.) MIDI Implementation

Function	Receive	Remarks
channel	1 - 16	
mode	3	multimode
note numbers	21 – 108	
velocity	yes	
channel aftertouch	yes	assignable
poly aftertouch	no	
pitchbend	yes	
control change	yes	
	00	bank select (MSB)
	01	modulation (assignable)
	02	breath control
	03	pitchbend up
	04	pitchbend down (foot control)
	05	portamento time
	06	data entry
	07	main volume / dynamic
	08	balance
	09	dimension2
	10	pan
	11	expression
	32	bank select (LSB) [send only]
	39	volume (from VST instrument)
	63	edit page jump
	64	sustain, mono & portamento switch, retrigger
	65	portamento switch (optional)
	66	sostenuto
	71	chord-mapper volume voice 2-6
	72	chord-mapper voice count
	73	set chord-mapper key offset
	74	set transposition
	75	minimum dynamic range
	76	maximum dynamic range
	77	maximum vibrato
	78	vibrato speed
	79	vibrato delay
	80	growl
	81	multiphonics
	82	harmonic dirt
	84	transpose 1 semitone down
	85	transpose 1 semitone up
	86	program down
	87	program up
	88 – 90	octave (minus, center, plus)
	91	reverb send
	92	room send
	93	chorus send
	94	delay send
	95	
	96	data increment
	97	data decrement
	98	NRPN LSB
	99	NRPN MSB
	102 - 109	preset memory 1 – 8
	110 - 119	front panel keys
	121	start / stop
	123	all notes off
program change	1 – 128	
system exclusive	no	
system common	no	
system realtime	yes	start / stop
active sense	yes	

XIV.) Presets (factory bank 0 – XPression LE)

(notice: these are the demo banks – presets might change after updates)

001	Flute1 Vibrato
002	Flute1
003	Jazzy Flute
004	Flute2 Ian A.
005	"Alto" Flute
006	Phonix Flute
007	Pan Pipes
008	Pan Pipes stereo
009	Octave-Flutes
010	3 Flutes
011	Clarinet1 Bright
012	Clarinet2 dark
013	Bass Clarinet
014	Octave-Clarinets
015	-
016	-
017	Legit Tenor
018	Sax Kinda Mellow
019	Ernie's Tenor
020	Hard Tenor Sax
021	TenorSax Growl Stereo
022	Trumpet1
023	Trumpet1 dark
024	Trombone
025	Bass Trombone
026	Violin 1
027	Violin 5th
028	Strings 1
029	Strings 2 dark
030	Guitar Nylon
031	Nylon Strum C
032	Nylon Sitar
033	Bass Guitar
034	Floyd Rhodes
035	Vibraphone
036	Flute & Vibes
037	Steel Drums
038	Syn Trumpet
039	Syn Flugelhorn
040	Syn Soft Brass
041	Syn Brass-Lead
042	Lucky Man
043	Synth Bone
044	Square Pan Pipe
045	Spooky 1
046	Trumpet + TenorSax + Trombone
047	2 Trumpes + 2 Trombones
048	Trumpet+Flute+Clarinet+Steeldrum
049	Trumpet + Tenor CC72
050	Trumpet+Tenor+Trombone CC72
051	Flute+Clarinet CC72
052	Synth Chords 1
053	Rotator Brecker 1
054	Rotator & Trombone ChanSwitch
055	Rock'n'Roll I
056	Rock'n'Roll IV
057	Rock'n'Roll V
058	Moonlight Serenade
059	Trains ChordMapper
060	All of Me (w-BackingTrack)
061	MicIn-Trumpet
062	MicIn Sawtooth
063	MicIn Square
064	MicIn-Rotator
065	Davy
066	-
067	-
068	-
069	-
070	-
071	-
072	-
073	
074	-
075	-
076	-
077	-
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123	-
124	-
125	-
126	-
127	-
128	-

XIV.) Presets (factory bank 1)

(notice: these are the demo banks – presets might change after updates)

001 Flute1 Vibrato
002 Flute1
003 Flute2
004 Flute2 Ian A.
005 Piccolo Flute
006 Pan Pipes
007 Phonix Flute
008 Oboe1
009 English Horn
010 Clarinet1 Bright
011 Bass Clarinet
012 Bassoon Bright
013 Soprano Sax Clean
014 Alto Sax Clean
015 Alto Sanborn
016 Alto Desmond
017 Sax Kinda Mellow
018 Ernie's Tenor
019 Tenor Sax Growl
020 Dexter
021 Baritone Sax dirty

022 Trumpet1
023 Trumpet1 dark
024 Trumpet1 Mute
025 Trumpet2 Mute
026 Trumpet2 AutoWah
027 Breathy Flugel
028 2 Flugelhorns
029 Trombone
030 Trombone Mute1
031 Trombone Mute2
032 Tenor Horn
033 Tuba
034 French Horn1
035 French Horn1 x2
036 French Horn1 Mute
037 French Horn1 Mute x2

038 Woodwind Quintet
039 3 Flutes
040 Saxophone Quartet
041 Saxophone Section (Big Band)
042 2 Trumpets + 2 Trombones
043 Brass Quintet 2
044 French Horn + Trombone
045 Trumpet + Ten Sax + Trombone
046 Tower of Power
047 Flute + Clarinet + TrbM + BsClar

048 Syn Trumpet
049 Syn Flugelhorn
050 Syn Brass-Lead
051 Syn Soft Brass
052 Syn Horn
053 Synth Bone
054 Square Pan Pipe
055 Arp Harp
056 Synth Bass 1
057 Synth Bass 2
058 Bass Guitar
059 Fretless Bass
060 Double Bass

061 Strings 1
062 Strings 2
063 Violin 1
064 Cello

065 Synth Chords 1
066 Synth Chords 2
067 Synth Chords 3
068 Synth Chords external 1
069 Synth Chords external 2
070 Synth Chords external 3
071 Brass Chords external
072 Sax Section external

073 Moonlight Serenade
074 In The Mood
075 Sail Along part 1
076 Sail Along part 2
077 Rock'n'Roll I
078 Rock'n'Roll IV
079 Rock'n'Roll V
080 All Night long - Brass

081 Flute Badinerie (w- BackingTrack)
082 Flute1 Mozart (w- BackingTrack)
083 Oboe1 Vivaldi (w- BackingTrack)
084 Bassoon Vivaldi (w- BackingTrack)
085 Trumpet Haydn (w- BackingTrack)
086 All of Me (w- BackingTrack)
087 Peter Gunn (w- BackingTrack)
088 Take Five (w- BackingTrack)
089 In a Sentimental Mood (w- BackingTrack)
090 Trb - Night and Day (w- BackingTrack)
091 BigBand One4RS (w- BackingTrack)
092 BigBand Trombone Section
093 Bari Sax Dirty (w- BackingTrack)

094 Trumpet+Alto CC72
095 Trumpet+AltoSax+Trombone CC72
096 Alto Sax – Mic-Growl
097 12-String Strum (in C)
098 Tootsy
099 BluesHarp

100 A Horse With No Name – 12Str.
101 Guitar Nylon
102 Guitar Steel
103 12 String Guitar
104 Mandolin
105 Grand Piano
106 Bright Piano
107 E-Piano 1
108 E-Piano 2
109 Harpsichord
110 Clavinet
111 Celesta
112 Glockenspiel
113 Vibraphone
114 Marimba
115 Xylophone
116 Tubular Bells
117 Steel Drum
118 Jazz Organ
119 Pipe Organ 1
120 Pipe Organ 2
121 Harp
122 Timpani
123 Gong
124 MicIn-Rotator
125 Trains ChordMapper
126 Rotator&Trombone ChanSwitch
127 Hold&Alto ChanSwitch
128 Microphone -> MIDI OUT 1

Presets (factory bank 2 and 3)

001	Flute1 Vibrato
002	Flute1
003	Flute2
004	Flute2 Ian A
005	Piccolo - Flute
006	Jazzy Flute
007	Pan Pipes
008	Pan Pipes stereo
009	Alto Flute
010	-
011	-
012	-
013	-
014	-
015	-
016	Phonix Flute
017	Oboe1
018	Oboe1 dark
019	Oboe2
020	-
021	English Horn
022	-
023	Clarinet1 bright
024	Clarinet1 clean
025	Clarinet2 bright
026	Clarinet2 dark
027	-
028	-
029	Bass Clarinet
030	-
031	Bassoon bright
032	Bassoon dark
033	-
034	-
035	-
036	-
037	-
038	-
039	-
040	-
041	Soprano Sax clean
042	Soprano Sax dirty
043	Groove-Soprano
044	-
045	Alto Sax clean
046	Alto Sax Sanborn
047	Alto Sax Desmond
048	-
049	Alto Glazunov
050	-
051	Sax Kinda Mellow
052	Sax Kinda Mellow dirty
053	TenSax1 ‘RoundMidnight (BiteVib)
054	Hard Tenor Sax
055	Tenor Sax Growl
056	Ernie’s Tenor
057	Dexter
058	It Getz Airy
059	-
060	Legit Tenor
061	Baritone Sax
062	Baritone Sax dirty
063	-
064	BassBeast - Bari
065	Trumpet 1
066	Trumpet 1 dark
067	Trumpet 2
068	Trumpet 2 dark
069	Trumpet 1 mute
070	Trumpet 2 mute
071	Trp2 Mute AutoWah
072	-
073	-
074	-
075	-
076	Piccolo Trumpet
077	Flugelhorn
078	Breathy Flugel
079	2 Flugelhorns
080	-
081	Trombone
082	Trombone Mute1
083	Trombone Mute2
084	Bass Trombone
085	Tenor Horn
086	-
087	Tuba
088	-
089	French Horn1
090	French Horn1 x2
091	French Horn2
092	French Horn2 x2
093	French Horn1 Mute
094	French Horn1 Mute x2
095	French Horn2 Mute
096	French Horn2 Mute x2
097	-
098	Tootsy
099	BluesHarp
100	-
101	Woodwind Quintet
102	4 Flutes
103	Flute + Oboe + Bassoon
104	2 Oboes + English Horn
105	2 Clarinets + Bass Clarinet
106	Bass Clarinet + Bassoon
107	-
108	-
109	Saxophone Quartet
110	Saxophone Section (Big Band)
111	Clarinet + Saxophone Section
112	2 Trumpets + 2 Trombones
113	Brass Quintet 1
114	Brass Quintet 2
115	French Horn + Trombone
116	Brass 1
117	Flugelhorn + Tenor Horn
118	Tenor Horn + Tuba
119	Trumpet + Ten Sax + Trombone
120	Trumpet + Ten Sax + Trombone
121	Trumpet + 3 Saxes + Trombone 1
122	Tower of Power
123	Flute + Trp Mute + 2 Saxes + Trb
124	Flute + Clarinet + Trb + BsClar
125	TrpMute+EnglHorn+TrbMute+Bassoon
126	-
127	-
128	Microphone -> MIDI OUT 1

Presets (factory bank 4 and 5)

001	Grand Piano
002	Bright Piano
003	-
004	Chorus Piano
005	E-Piano 1
006	E-Piano 2
007	Harpsichord
008	Clavinet
009	Celesta
010	Glockenspiel
011	-
012	Vibraphone
013	Marimba
014	Xylophone
015	Tubular Bells
016	-
017	Jazz Organ
018	-
019	-
020	Pipe Organ 1
021	Pipe Organ 2
022	-
023	-
024	-
025	Guitar Nylon
026	Guitar Steel
027	Jazz Guitar
028	12 String Guitar
029	Mandolin
030	-
031	-
032	-
033	Double Bass
034	-
035	Bass Guitar (picked)
036	Fretless Bass
037	-
038	-
039	Synth Bass 1
040	Synth Bass 2
041	Violin1
042	Violin2
043	Viola
044	Cello
045	Double Bass
046	Str-Pizziccato
047	Harp
048	Timpani
049	Strings 1
050	Strings 2
051	Syn Strings 1
052	Syn Strings 2
053	-
054	-
055	-
056	-
057	Violin 1 Pizzicato
058	Violin 2 Pizzicato
059	Viola Pizzicato
060	Cello Pizzicato
061	-
062	-
063	-
064	-
065	-
066	-
067	-
068	-
069	-
070	-
071	-
072	-
073	-
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103	-
104	-
105	-
106	-
107	-
108	-
109	-
110	-
111	-
112	-
113	-
114	-
115	Steel Drum
116	-
117	-
118	-
119	-
120	-
121	-
122	-
123	-
124	-
125	Gong
126	Wind Chimes
127	-
128	-

Presets (factory bank 6 and 7)

001	Syn Trumpet
002	Syn Flugelhorn
003	Syn Brass Lead
004	Syn Soft Brass
005	Syn Horn
006	Synth Bone
007	Square Pan Pipe
008	Arp Harp
009	Spooky 1
010	Spooky 2
011	Flooty Synth
012	Popcorn Pizza
013	Analog Guitar
014	Synth Sitar (use sustain)
015	Sentimental
016	Lucky Man
017	Syn-Strings 1
018	-
019	-
020	-
021	Syn Soft Brass
022	Soft Brass Pad
023	-
024	-
025	-
026	-
027	-
028	-
029	-
030	-
031	-
032	-
033	Synth Bass 1
034	Synth Bass 2
035	-
036	-
037	-
038	-
039	-
040	-
041	-
042	-
043	-
044	-
045	-
046	-
047	-
048	-
049	-
050	-
051	-
052	-
053	-
054	-
055	-
056	-
057	-
058	-
059	-
060	-
061	-
062	-
063	-
064	-
065	Synth Bass 1
066	Synth Bass 2
067	-
068	-
069	-
070	-
071	-
072	-
073	-
074	-
075	-
076	-
077	-
078	-
079	-
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