nativeKONTROL Arsenal_NK2
User Manual

Version 1.0.8

6 TROUBLESHOOTING

7 SUPPORT

1   CHANGES IN THIS VERSION

Additions/Improvements:

- Added new DISABLE_GRID_SELECTOR option to Options.txt that allows the Grid Selector to be disabled.

- Various minor improvements.

Fixes:

- Fixed issue where Script Linking with the Push2 script wouldn't work on some systems.

- Various minor fixes.

UPDATE NOTES: In some cases, changes can be made to a Mode that impact the Mode, but that do not change the structure of the Mode. For that reason, although changes may be listed for a Mode, the Mode itself (or any Mode Pack that contains it) may not require updating. Mode/Mode Pack updates are only issued when the structure of a Mode changes.

2 SETUP

This section covers the initial installation steps you will need to complete in order to use Arsenal_NK2. Please **take your time** when completing these steps. If you should run into trouble when performing any of these steps, please refer to the Troubleshooting section.

Installing Arsenal_NK2

IMPORTANT NOTE: Arsenal_NK2 will overwrite the CC Mode settings of your nanoKONTROL2. If you customized CC Mode, make sure to back it up **before** installing or using Arsenal_NK2.

To install Arsenal_NK2, first close Live and then run the provided Setup executable (Windows) or package (OS X). At the end of the installation, you'll be presented with a dialog box indicating the Live installation(s) that Arsenal_NK2 was installed into. If you do not see the Live installation you're using listed there, you can select it manually.

In most cases, you will only need to install Arsenal_NK2 once. It will remain installed even after updating to a newer version of Live (when using Live's autoupdate feature). However, if you re-install Live or install Live to a new location, you will need to install Arsenal_NK2 again. It's recommended that you keep the Arsenal_NK2 Setup files on hand for such cases.

Once installation is complete, please launch Live to complete setup.

Live Settings

The following settings will be found in Live's Preferences on the *Link/MIDI* tab. All of the settings listed here are required for proper functionality of Arsenal_NK2.

1. Under **MIDI Ports**, turn off all of the Sync and Remote switches related to the *nanoKONTROL2*.

2. Select *Arsenal_NK2_A* as a **Control Surface**.

3. For the **Input** and **Output**, select *nanoKONTROL2*.

4. For **Takeover Mode**, select an option other than *None* to prevent jumps in values when using the ENCODERS.

5. Under **MIDI Ports**, turn on the Track switches for *Arsenal_NK2_A Input* and *Arsenal_NK2_A Output*.
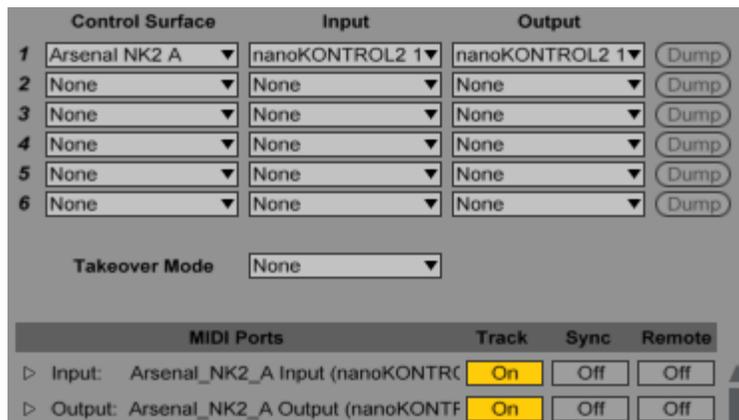
Next Steps

After completing installation and setup, you'll immediately be able to use Arsenal_NK2. However, before doing so, it is recommended that you familiarize yourself with the Core Concepts and Control Layout of Arsenal_NK2. Once you've gotten acclimated, please refer to the Encoder Modes section to learn more about the optional features that you can add to Arsenal_NK2.

3   CORE CONCEPTS

Arsenal_NK2 is a so called *Arsenal-powered Control Surface script*. This is a special type of Control Surface script that includes some new and innovative concepts as well as concepts that are common to Control Surface scripts in general. This section covers these concepts.

⚙ **NOTE***: All documentation related to Arsenal-powered Control Surface scripts uses the term 'encoder' to mean an encoder, knob, fader or slider. Essentially, an encoder is anything that isn't a button or switch.*

Pluggability

Arsenal_NK2 ships with a number of Encoder Modes so that it is immediately useable. However, the Encoder Modes that are accessible from Arsenal_NK2 can be re-arranged or replaced by other Modes as you see fit. New Modes can be added and used in Arsenal_NK2 by installing new Modes or Mode Packs, which can be purchased from our site: http://www.nativekontrol.com/

Additionally, except where noted, all installed Modes can be used with any Arsenal-powered Control Surface script. In other words, if you purchase and install an Encoder Mode for use with Arsenal_NK2, it can also be used with any Arsenal-powered Control Surface script that has `ENCODERS`.

Multiple Scripts

Arsenal_NK2 ships as 6 Control Surface scripts (Arsenal_NK2_A – Arsenal_NK2_F). These are all functionally identical, but each can have its own settings (as dictated by its settings files described in the next section). This makes it so you can use two (or more) nanoKONTROL2s, each running its own script with each script having entirely different settings. Alternatively, if you're only using a single nanoKONTROL2, you can set up multiple scripts, each with different settings (one for studio use, one for stage use, etc) that you can switch between on-the-fly depending on your needs at any given time.

Each Arsenal_NK2 script will use the same Live Settings. The only difference is in step #2. For example, if you'd like to use Arsenal_NK2_B, you'll select *Arsenal_NK2_B* in step #2 instead of *Arsenal_NK2_A*.

Settings Folders/Files

The functionality of each Arsenal_NK2 Control Surface script is largely determined by the settings files within its settings folder. This folder will be created upon completing the Live Settings for an Arsenal_NK2 script. For example, the first time you complete the Live Settings for Arsenal_NK2_A, a settings folder containing several settings files will be created.

You can find the settings folder in the nativeKONTROL/Arsenal directory within your User directory. The settings folder will have the same name as the script (*Arsenal_NK2_A* for example).

By default, 2 settings files will be created in the settings folder:
- *Settings-General.txt* – Contains general settings related to the script's operation.
- *Settings-Encoder Mode List.txt* – Contains the list of Encoder Modes the script will have access to.

Some Modes have associated settings files. Upon using one of these in an Arsenal_NK2 script, a settings file for it will be created in the settings folder.

Finally, the root nativeKONTROL/Arsenal directory within your User directory contains a settings file related to Linking that applies to all Arsenal-powered Control Surface scripts. Additionally, this directory contains a text file (*Arsenal Encoder Modes.txt*) that lists all of the installed Encoder Modes that can be used along with a brief description of each Mode.

✔ **TIP:** *In addition to the settings that can be made in the settings files mentioned above, there are some additional settings that can be made as well. These settings are covered here.*

Linking

Arsenal_NK2 can be linked to other Control Surface scripts so that it and the scripts it's linked to will control groups of Tracks and/or Scenes relative to each other. Up to 6 scripts can be linked.

In order for a script to be linked, it needs to include a linkable component. All Arsenal-powered Control Surface scripts include such a component as do many of the scripts built into Live (such as Push or APC40). In general, if a script has an associated colored border (with a fixed size) that surrounds the Tracks and Scenes it's controlling, it can be linked.

Link-related settings can be made in *Settings-Linking.txt*, which you'll find in the root nativeKONTROL/Arsenal directory within your User directory.

Current Track

Many of the available Encoder Modes operate upon a single Track and/or the Clips/Devices on a single Track. By default, these Modes will apply to the Track that is selected in Live. However, Arsenal_NK2 includes the ability to lock these Modes to a particular Track. This way, the Modes will continue to operate on the Track regardless of whether it's selected or not. When Modes are locked to a Track, the Track is referred to as *the current Track*.

Fixed Length Recording

Arsenal_NK2 includes Fixed Length Recording capability. This allows controls that launch individual Clips and controls assigned to Live's Session Record button to record Clips that have a fixed length, which will seamlessly switch from recording to playback.

In *Settings-General.txt*, you'll find two settings that govern how this functionality works. The `FIXED_LENGTH_ON_BY_DEFAULT` setting determines if Fixed Length Recording should be turned on by default. The `FIXED_LENGTH_DEFAULT_LENGTH` setting determines the default fixed length to use.

Grid Selector

Arsenal_NK2 includes a Grid Selector, which is a colored border that indicates the Tracks Arsenal_NK2 controls. The color of this border is dependent upon the Control Surface slot (in Live's Preferences on the *Link/MIDI* tab) the Arsenal_NK2 script you're using is selected in. For example, a script selected in the first Control Surface slot will have a red Grid Selector while a script selected in the fourth Control Surface slot will have a green Grid Selector.

Status Bar

Arsenal_NK2 as well as the Encoder Modes it can utilize make heavy use of Live's Status Bar, which is the horizontal bar at the bottom of Live's main window. This helps to keep you informed of what is going on in Arsenal_NK2 such as which Mode is selected.
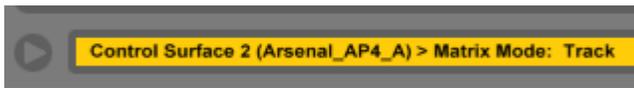
Max for Live Interface

Arsenal_NK2 includes a handy Max for Live interface that makes it extremely easy to access the script's controls/groups of controls from Max for Live devices. This allows you to create new (or retrofit existing) Max for Live devices to work directly with the nanoKONTROL2. You can find a variety of devices that use/demonstrate this on the Arsenal M4L Repository.

MIDI Mapping

When using the default Live Settings for Arsenal_NK2, it functions as a separate entity from other MIDI devices and so other MIDI devices cannot conflict with it and vice versa. However, the default Live Settings will also not allow Arsenal_NK2 to be used for MIDI mapping. Unless it's absolutely necessary, we would recommend not using MIDI mapping.

Having said that, MIDI mapping is necessary in certain use cases. For that reason, we've provided Encoder Modes (such as User) that can be used for MIDI mapping and that minimize the potential for conflicts with other MIDI devices. However, it is not possible to completely eliminate conflicts due to the nature of MIDI mapping.

In order to use the aforementioned Modes for MIDI mapping, you will need to turn on the Remote switches for the Arsenal_NK2 script you're using. These switches can be found in Live's Preferences on the *Link/MIDI* tab and are right next to the Track switches you turned on while completing your Live Settings.

Finally, you should **not** use any controls or Modes for MIDI mapping unless it's explicitly stated that they are intended to be used for MIDI mapping.

HazMapping

Some of the Encoder Modes that can be used with Arsenal_NK2 utilize **HazMapping**. HazMapping is somewhat similar to conventional MIDI mapping in Live, but with a bit more intelligence. In particular, unlike MIDI mappings which apply to specific items in specific locations within a Live Set, HazMappings apply to specific items that can exist in multiple places within a Live Set.

There are three types of HazMapping: **Track**-based HazMapping allows you to control parameters on the current Track. **Chain**-based HazMapping allows you to control parameters on the selected Chain of a Rack on the current Track. **Mix**-based HazMapping allows you to control parameters across the Tracks within the Grid Selector.

Creating HazMappings

HazMappings are created based on the Track that is selected in Live. So you first need to select the Track that contains the parameters you'd like to create HazMappings for. Once that's done, you'll need to enter HazMap Mapping Mode. The way in which that's done depends on the Mode you're using, so please refer to the documentation of the Mode for details on that.

After entering HazMap Mapping Mode, you simply click on the parameter you'd like to create a HazMapping for (which must exist on the Track that is selected in Live) and then move or press the physical control that you'd like to control the parameter with. Although this process is quite simple, the Status Bar guides you through the process to make things even easier.

✆ **NOTES:** *Selecting a different Track or entering/exiting MIDI mapping mode while in HazMap Mapping Mode will cause HazMap Mapping Mode to be exited. Also, although any parameter can be clicked on in Live, not all parameters are considered by Live to be 'selected'. Parameters of that sort (such as the Crossfader) will not be controllable via HazMapping.*

Device Parameters

When HazMapping parameters of a Device, there are a few things to be aware of:
- HazMapping does not take into account the position of a Device on a Track or Chain. Instead, HazMapping will apply to the first instance of a Device found on a Track or Chain.

- When using Track or Mix-based HazMapping on a parameter of a built in Live Device, HazMapping will apply only to instances of that Device that have the same name as the instance of the Device the HazMapping was created for. For example, if you created a HazMapping for the Filter Type of an Auto Filter Device named *My Filter*, HazMapping would only apply to Auto Filters named *My Filter*. If you'd like HazMapping to apply to any instance of a built in Live Device regardless of its name, create a HazMapping using an instance of the Device that has the default name for the Device (such as *Auto Filter*).

- A Mode that utilizes Chain-based HazMapping can only apply to a single type of Rack. For example, if you create a HazMapping for a parameter within a Drum Rack, it will only apply to Drum Racks. Of course, you can use multiple Modes that utilize Chain-based HazMapping and each of those can apply to a different type of Rack.

Mode Classes

There are two classes of Modes that can used in Arsenal_NK2; **Static** and **Mutable**.

Static Modes always perform the same function regardless of how many times they are specified in a Mode list file. For example, Volume is a Static Mode that will always control the Volume of Tracks.

Mutable Modes can perform different functionality and/or control different parameters based on the name that is specified for the Mode in a Mode list file. For example, Send is a Mutable Mode that can control one of the Sends levels of Tracks. If SEND A is specified, the Mode will control the Send A levels of Tracks. If SEND L is specified, the Mode will control the Send L levels of Tracks.

ClyphX/ClyphX Pro Integration

Arsenal_NK2 offers integration with ClyphX and ClyphX Pro and allows you to access ClyphX/ClyphX Pro functionality from Modes such as Clip Mode.

In the case of ClyphX, in order to access its functionality, ClyphX needs to be installed and selected as a Control Surface. You can download and learn more about ClyphX here:
http://beatwise.proboards.com/board/5/clyphx

In the case of ClyphX Pro, in order to access its functionality, ClyphX Pro simply needs to be installed. Arsenal_NK2 will automatically load ClyphX Pro so that you don't need to use up a Control Surface slot for ClyphX Pro. However, in some cases, you may want to use ClyphX Pro as a standalone Control Surface. To do that, simply select ClyphX Pro as a Control Surface. That will cause Arsenal_NK2 to not load ClyphX Pro.

4 CONTROL LAYOUT

This section covers the control layout and default functionality of Arsenal_NK2.
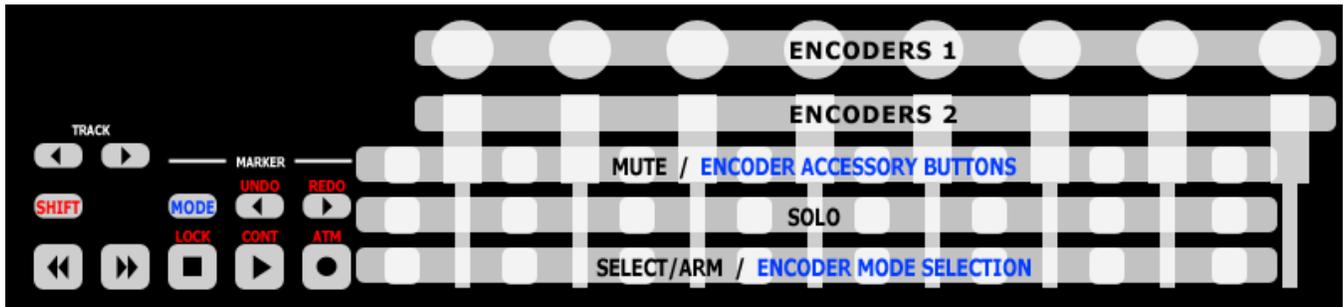
TRACK ◀ – Navigates to the previous group of 8 Tracks to control.
- When **SHIFT** is held down, this will navigate to the previous Track.

TRACK ▶ – Navigates to the next group of 8 Tracks to control.
- When **SHIFT** is held down, this will navigate to the next Track.

SHIFT – Modifies the function of other controls.

MODE – Modifies the function of other controls.

MARKER ◀ – Jumps to the previous Locator.
- When **SHIFT** is held down, this will trigger Live's Undo.

MARKER ▶ – Jumps to the next Locator.
- When **SHIFT** is held down, this will trigger Live's Redo.

◀◀ – Rewind.

▶▶ – Fastforward.

■ – Stop playback.
- When **SHIFT** is held down, pressing this quickly will lock Modes that control items on the selected Track to the selected Track so that they will continue controlling items on the Track (referred to as the current Track) even while navigating to other Tracks. When pressed quickly again, this will unlock from the current Track. The Status Bar will indicate lock status. When held down, this will trigger the Mode-specific lock function of any Modes that have such a function. The LED of this Button will indicate when this Mode-specific lock function has been triggered.

▶ – Start playback.
- When **SHIFT** is held down, this will continue playing back from the last stop point.

● – Toggles/triggers Session Record.
- When **SHIFT** is held down, this will toggle Automation Arm.

✔ **TIP:** *By default, Session Recording will apply to all armed Tracks. This can optionally only apply to the current Track via the* **ALLOW_MULTI_TRACK_SESSION_RECORD** *setting in Settings-General.txt. Also, by default, Session Recording will not automatically stop recording. You can cause it to automatically stop recording after a certain number of bars via the* **FIXED_LENGTH_ON_BY_DEFAULT** *setting in Settings-General.txt. You can specify the number of bars via the* **FIXED_LENGTH_DEFAULT_LENGTH** *setting in Settings-General.txt.*

ENCODERS 1 – 2 – These controls can have up to 8 Encoder Mode assignments, which can be specified in *Settings-Encoder Mode List.txt*.

MUTE – Toggle the Mute state of the Tracks within the Grid Selector. When held down, these will function as momentary Mute switches.

- When MODE is held down, these are referred to as ENCODER ACCESSORY BUTTONS and their function is determined by the Mode assignments of ENCODERS 1.

SOLO – Toggle the Solo state of the Tracks within the Grid Selector according to your Exclusive Solo setting in Live's Preferences. When held down, these will function as momentary Solo switches.

- When SHIFT is held down, the Buttons do the opposite of your Exclusive Solo setting.

SELECT/ARM – Select the Tracks within the Grid Selector. If the Track is already selected, pressing the associated Button again will toggle the Arm state of the Track. If the Track is a Group Track, holding down the associated Button will fold/unfold the Group Track.

- When SHIFT is held down, the Buttons select the Track as well as the playing Clip on the Track if there is one.

- When MODE is held down, these will select Encoder Modes and provide momentary (if held down) or toggle (if pressed quickly) functionality. By default, these will select Pan/Volume, Sends/Volume, Device/Volume and five Dummy Modes (which have no functionality of their own, but can be used with Max for Live) respectively. The Status Bar will indicate the selected Encoder Mode.

✔ **TIP:** *You can swap the orientation of* MUTE *and* SOLO *via the* USE_CONTROLLER_SOLO_MUTE_ORIENTATION *setting in Settings-General.txt.*

5   ENCODER MODES

Encoder Modes determine the function of the `ENCODERS` and `ENCODER ACCESSORY BUTTONS`. This section covers the Encoder Modes that can be used in Arsenal_NK2. In order to use a Mode, you'll need to specify the Mode's name in *Settings-Encoder Mode List.txt*.

You'll notice that many of the Encoder Modes have overlapping functionality. For example, the functionality found in Volume, Pan and Sends is also available in Mix. The reason for this is to provide you with options. In some cases, you may prefer to use Encoder Modes with discrete functionality (such as Volume). In other cases, you may prefer to use Encoder Modes with multiple layers of functionality (such as Mix). The latter essentially consolidates multiple Encoder Modes into a single Encoder Mode.

① **NOTE:** *The functionality accessible from the* `ENCODER ACCESSORY BUTTONS` *only applies to the Encoder Mode assigned to the first set of* `ENCODERS`.

Clip

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `CLIP`

This Mode sets up the `ENCODERS` for controlling properties of the selected Clip on the current Track. This Mode also sets up the `ENCODER ACCESSORY BUTTONS` for triggering ClyphX actions. The ClyphX actions that the Mode will trigger can be specified in *Settings-Clip.txt*.

ENCODER 1 – Controls the Clip's Start Marker in 1 bar increments or 1 beat increments when `SHIFT` is held down.

ENCODER 2 – No function in this Mode.

ENCODER 3 – Controls the Position of the Clip's Loop in 1 bar increments or 1 beat increments when `SHIFT` is held down. This `ENCODER` will do nothing if the Clip's Loop switch is turned off.

ENCODER 4 – Controls the Length of the Clip's Loop in 1 bar increments or 1 beat increments when `SHIFT` is held down. This `ENCODER` will do nothing if the Clip's Loop switch is turned off.

ENCODER 5 – Selects the Clip's Warp Mode. This `ENCODER` will do nothing if the Clip is a MIDI Clip or an Audio Clip that is not warped.

ENCODER 6 – Controls the Clip's Transposition in semitone increments. This `ENCODER` will do nothing if the Clip is a MIDI Clip.

ENCODER 7 – Controls the Clip's Transposition in cent increments. This `ENCODER` will do nothing if the Clip is a MIDI Clip.

ENCODER 8 – Controls the Clip's Gain. This `ENCODER` will do nothing if the Clip is a MIDI Clip.

ENCODER ACCESSORY BUTTONS – Trigger ClyphX actions.

Device

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `DEVICE`

This Mode sets up the **ENCODERS** for controlling parameters of the selected Device (indicated by a blue hand icon on the Device's title bar).

ENCODERS – Control the parameters of the selected Device.

ENCODER ACCESSORY BUTTONS 1-2 – If the Device has more than 8 parameters, these will move between Banks of 8 parameters to control. The Status Bar will indicate the name(s) of the selected Bank(s).

ENCODER ACCESSORY BUTTONS 3-4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – If pressed quickly, this will toggle the selected Device on/off. If held down, this will momentarily toggle the Device on/off.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7-8 – Navigate left/right between Devices.

✔ **TIP:** *This Mode can be locked to the currently selected Device via the Button assigned to Lock. The Status Bar will indicate lock status.*

Device 2

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `DEVICE_2`

This Mode sets up the **ENCODERS** for controlling the second set of 8 parameters of the selected Device (indicated by a blue hand icon on the Device's title bar). This Mode should **only** be used when Device Mode is also in use. For example:

```
ENCODERS_1_MODE_1 = DEVICE
ENCODERS_2_MODE_1 = DEVICE_2
```

When used in this way, you'll be able to control 16 parameters of the selected Device at a time.

ENCODERS – Control the second set of 8 parameters of the selected Device.

ENCODER ACCESSORY BUTTONS – Same as noted for Device Mode except that **ENCODER ACCESSORY BUTTONS** 1-2 will move between Banks of 16 parameters to control.

✔ **TIP:** *This Mode can be locked to the currently selected Device via the Button assigned to Lock. The Status Bar will indicate lock status.*

Drum Pad Mix

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `DRUM_PAD_MIX`

This Mode sets up the `ENCODERS` for controlling Mixer-related parameters of the selected Drum Rack Pad on the current Track.

ENCODER 1 – Controls the Volume of the selected Drum Rack Pad.

ENCODER 2 – Controls the Panning of the selected Drum Rack Pad.

ENCODERS 3-7 – Control the first 5 Send levels of the selected Drum Rack Pad.

ENCODER 8 – Selects the Drum Rack Pad (within the 16 visible Drum Rack Pads) to control. The Status Bar will indicate the name of the selected Pad.
- When `SHIFT` is held down, this will move the Drum Rack's Selector to select the 16 visible Drum Rack Pads.

ENCODER ACCESSORY BUTTON 1 – Triggers the selected Drum Rack Pad.

ENCODER ACCESSORY BUTTON 2 – No function in this Mode.

ENCODER ACCESSORY BUTTON 3 – Toggles the Mute state of the selected Drum Rack Pad. When held down, this will function as a momentary Mute switch.

ENCODER ACCESSORY BUTTON 4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – Toggles the Solo state of the selected Drum Rack Pad. When held down, this will function as a momentary Solo switch.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7-8 – Navigate between Drum Rack Pads. The Status Bar will indicate the name of the selected Pad.

✔ **TIP:** *By default,* `ENCODER 1` *will control the entire Volume range of Drum Rack Pads. This can optionally be limited to 0db via the* `LIMIT_VOLUME_CONTROL_TO_0_DB` *setting in* Settings-General.txt.

Drum Pad Parameters

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): DRUM_PAD_PARAMS

This Mode sets up the **ENCODERS** for controlling special parameters of the selected Drum Rack Pad as well as the Macros of the Drum Rack on the current Track.

ENCODERS 1-5 – Control the first 5 Macros of the Drum Rack.

ENCODER 6 – Controls the Out Note (allowing for transposition) of the selected Drum Rack Pad. The Status Bar will indicate the new value.

ENCODER 7 – Controls the Sample Selector of the Sampler or the Chain Selector of the Instrument Rack on the selected Drum Rack Pad. The Status Bar will indicate the new value.

ENCODER 8 – Selects the Drum Rack Pad (within the 16 visible Drum Rack Pads) to control. The Status Bar will indicate the name of the selected Pad.
- When **SHIFT** is held down, this will move the Drum Rack's Selector to select the 16 visible Drum Rack Pads.

ENCODER ACCESSORY BUTTON 1 – Triggers the selected Drum Rack Pad.

ENCODER ACCESSORY BUTTON 2 – No function in this Mode.

ENCODER ACCESSORY BUTTON 3 – Toggles the Mute state of the selected Drum Rack Pad. When held down, this will function as a momentary Mute switch.

ENCODER ACCESSORY BUTTON 4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – Toggles the Solo state of the selected Drum Rack Pad. When held down, this will function as a momentary Solo switch.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7-8 – Navigate between Drum Rack Pads. The Status Bar will indicate the name of the selected Pad.

Global

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **GLOBAL**

This Mode sets up the **ENCODERS** for controlling global properties.

ENCODER 1 – Controls Tempo in 1-BPM increments. The control range is limited to 60 BPM – 187 BPM.

ENCODER 2 – Controls Global Groove Amount. The Status Bar will indicate the new value.

ENCODER 3 – Controls Global Quantization.

ENCODER 4 – Controls Record Quantization. The Status Bar will indicate the new value.

ENCODER 5 – Controls the last parameter that was selected (by clicking on it). The Status Bar will indicate the name of the parameter assigned to this control any time it changes. Note that, although any parameter can be clicked on in Live, not all parameters are considered by Live to be 'selected'. Parameters of that sort (such as the Crossfader) will not be controllable from this control.

ENCODER 6 – Controls the Crossfader. The Status Bar will indicate the new value.

ENCODER 7 – Controls Cue Volume

ENCODER 8 – Controls Master Volume.

ENCODER ACCESSORY BUTTON 1 – Locks/unlocks the parameter assigned to **ENCODER 5**. When locked, **ENCODER 5** will continue to control the parameter it's assigned to even if other parameters are selected. The Status Bar will indicate lock status.

ENCODER ACCESSORY BUTTONS 2-8 – No function in this Mode.

✔ **TIP:** *By default,* **ENCODER 8** *will control the entire Volume range of the Master Track. This can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in* *Settings-General.txt*.

HazMap Chain

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **HM_CHAIN x** (where **x** is the name to use for an instance of the Mode. **HM_CHAIN DR** for example.)

This Mode sets up the **ENCODERS** for Chain-based HazMapping to parameters of the selected Chain of a Rack on the current Track.

ENCODERS – Control the HazMapped parameters of the selected Chain of a Rack on the current Track.

When **SHIFT** is held down, the first **ENCODER** provides access to mapping functionality. Moving the **ENCODER** to its maximum value will turn HazMap Mapping Mode On or Off.   When On, you can create HazMappings for the **ENCODERS**.

Moving the **ENCODER** to its minimum value will initiate deletion of the mappings of this Mode. Once initiated, the **ENCODER** must be moved to its maximum value to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

ENCODER ACCESSORY BUTTON 1 – Shows or hides the Devices on the selected Chain.

ENCODER ACCESSORY BUTTON 2 – No function in this Mode.

ENCODER ACCESSORY BUTTON 3 – Toggles the Mute state of the selected Chain. When held down, this will function as a momentary Mute switch.

ENCODER ACCESSORY BUTTON 4 – No function in this Mode.

ENCODER ACCESSORY BUTTON 5 – Toggles the Solo state of the selected Chain. When held down, this will function as a momentary Solo switch.

ENCODER ACCESSORY BUTTON 6 – No function in this Mode.

ENCODER ACCESSORY BUTTONS 7-8 – Navigate between the Chains of the Rack. The Status Bar will indicate the name of the selected Chain.

HazMap Mix

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `HM_MIX` `x` (where `x` is the name to use for an instance of the Mode. `HM_MIX EQ` for example.)

This Mode sets up the **ENCODERS** for Mix-based HazMapping to parameters across the Tracks within the Grid Selector.

ENCODERS – Control the HazMapped parameters of the Tracks within the Grid Selector.

When `SHIFT` is held down, the first **ENCODER** provides access to mapping functionality. Moving the **ENCODER** to its maximum value will turn HazMap Mapping Mode On or Off.   When On, you can create HazMappings for the **ENCODERS**. However, unlike other HazMap Modes, this Mode strictly uses the first **ENCODER** for creating HazMappings. Also, this Mode provides multiple Pages of mappings. Each Page allows for one mapping, which you'll create with the first **ENCODER**. You can switch between Pages while in HazMap Mapping Mode.

Moving the **ENCODER** to its minimum value will initiate deletion of the mappings of this Mode. Once initiated, the **ENCODER** must be moved to its maximum value to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

ENCODER ACCESSORY BUTTONS – These select the Page of mappings to use or, while in HazMap Mapping Mode, the Page to create mappings for. The Status Bar will display the name of the selected Page.

Pre-configured Instances

This Mode includes a variety of pre-configured instances that you can use by specifying the name of the instance in *Settings-Encoder Mode List.txt*. For the most part, these instances are provided for backwards compatibility with previous versions of Arsenal that included them as Static Modes. In all cases, the mappings of these instances cannot be changed. Also, unless otherwise note, the **ENCODER ACCESSORY BUTTONS** have no function in these instances.

INSTANCE NAME(S) to specify in *Settings-Encoder Mode List.txt*	ENCODER PARAMETER(S)	ENCODER ACCESSORY BUTTONS
`EQ_GAIN_1_MIX –` `EQ_GAIN_8_MIX`	Control the Gain of an EQ Eight or EQ Three band. For example, `EQ8_GAIN_2_MIX` will control the Gain of the 2nd band.	-
`EQ8_FREQ_1_MIX –` `EQ8_FREQ_8_MIX`	Control the Frequency of an EQ Eight band. For example, `EQ8_FREQ_2_MIX` will control the Frequency of the 2nd band.	-
`EQ8_RES_1_MIX –` `EQ8_RES_8_MIX`	Control the Resonance of an EQ Eight band. For example, `EQ8_RES_2_MIX` will control the Resonance of the 2nd band.	-
`EQ8_FREQ_MIX`	Control the Frequency of the bands of EQ Eight.	Select the EQ Eight band for the **ENCODERS** to control.
`EQ8_GAIN_MIX`	Control the Gain of the bands of EQ Eight.	Same as above.
`EQ8_RES_MIX`	Control the Resonance of the bands of EQ Eight.	Same as above.
`FILTER`	Control the Filter Drive, Frequency, Resonance or Type of the Filter Device*.	Select the Filter-related parameter (Drive, Frequency, Resonance or Type) for the **ENCODERS** to control.
`FILTER_DRIVE`	Control the Filter Drive of the Filter Device*.	-
`FILTER_FREQ`	Control the Filter Frequency of the Filter Device*.	-
`FILTER_RES`	Control the Filter Resonance of the Filter Device*.	-
`FILTER_TYPE`	Control the Filter Type of the Filter Device*.	-

* The following devices are recognized as Filter Devices: Analog, Auto Filter, Operator, Sampler, Simpler and Tension.

ⓘ **NOTE:** *If multiple instances of this Mode are used in the same Mode in your Settings-Encoder Mode List.txt file, the* **ENCODER ACCESSORY BUTTONS** *will select Pages for all instances of the Mode.*

HazMap Track

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **HM_TRACK x** (where **x** is the name to use for an instance of the Mode. **HM_TRACK SYNTH** for example.)

This Mode sets up the **ENCODERS** for Track-based HazMapping to parameters on the current Track.

ENCODERS – Control the HazMapped parameters of the current Track.

When **SHIFT** is held down, the first **ENCODER** provides access to mapping functionality. Moving the **ENCODER** to its maximum value will turn HazMap Mapping Mode On or Off. When On, you can create HazMappings for the **ENCODERS**.

Moving the **ENCODER** to its minimum value will initiate deletion of the mappings of this Mode. Once initiated, the **ENCODER** must be moved to its maximum value to perform the actual deletion.

The Status Bar will display information on all of this to help guide you through the process.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Pre-configured Instances

This Mode includes a variety of pre-configured instances that you can use by specifying the name of the instance in *Settings-Encoder Mode List.txt*. For the most part, these instances are provided for backwards compatibility with previous versions of Arsenal that included them as Static Modes. In all cases, the mappings of these instances cannot be changed. Also, unless otherwise note, the **ENCODER ACCESSORY BUTTONS** have no function in these instances.

INSTANCE NAME(S) to specify in *Settings-Encoder Mode List.txt*	ENCODER PARAMETER(S)	ENCODER ACCESSORY BUTTONS
EQ_GAIN	Control the Gain of the bands of EQ Eight or EQ Three.	-
EQ8	Control the Gain, Frequency or Resonance of the bands of EQ Eight.	Select the band parameter (Gain, Frequency or Resonance) for the **ENCODERS** to control.
EQ8_FREQ	Control the Frequency of the bands of EQ Eight.	-
EQ8_RES	Control the Resonance of the bands of EQ Eight.	-

MIDI

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **MIDI x** (where **x** is the name to use for an instance of the Mode. **MIDI MY SYNTH** for example.)

This Mode sets up the **ENCODERS** for sending MIDI data (Control Change messages) to MIDI Tracks to control instruments that natively respond to these messages or that feature MIDI learning capabilities that allow you to learn/assign parameters to MIDI messages. By default, these Modes will all send the following Control Change messages:
7 (Volume), 10 (Pan), 8 (Balance), 74 (Filter Cutoff), 71 (Filter Resonance), 73 (Amp Envelope Attack),
2 (Breath Controller), 1 (Mod Wheel)

The Mode needs to include an instance name (such as **MIDI BASIC**), which you'll specify in *Settings-Encoder Mode List.txt*. This allows each instance of the Mode to send different sets of MIDI messages. The MIDI messages each instance of the Mode should send can be specified in the instance's associated settings file. For example, the MIDI messages that **MIDI BASIC** will send are specified in the file named *Settings-MIDI Basic.txt*.

ENCODERS – Send MIDI data to MIDI Tracks.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Mix

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `MIX`

This Mode sets up the **ENCODERS** for controlling Mixer-related parameters of the Tracks within the Grid Selector.

This Mode should **not** be used in the same Mode as Volume, Pan (described below) or Send. For example, these assignments wouldn't work correctly:
`ENCODERS_1_MODE_1 = SEND A`
`ENCODERS_2_MODE_1 = MIX`

ENCODERS – Control the selected parameter of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – Select the parameter (Volume, Pan or Send A – F respectively) the **ENCODERS** should control. The Status Bar will indicate the name of the selected parameter.

✔ **TIP:** *By default, when assigned to Volume, the **ENCODERS** will control the entire Volume range of Tracks. They can optionally be limited to 0db via the* `LIMIT_VOLUME_CONTROL_TO_0_DB` *setting in Settings-General.txt.*

Pan

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `PAN`

This Mode sets up the **ENCODERS** for controlling the Panning of the Tracks within the Grid Selector.

This Mode should **not** be used in the same Mode as Mix (described above). For example, these assignments wouldn't work correctly:
`ENCODERS_1_MODE_1 = PAN`
`ENCODERS_2_MODE_1 = MIX`

ENCODERS – Control the Panning of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Return Mix

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_MIX`

This Mode sets up the **ENCODERS** for controlling Mixer-related parameters of the first 8 Return Tracks.

This Mode should **not** be used in the same Mode as Return Volume, Return Pan or Return Send. For example, these assignments wouldn't work correctly:
`ENCODERS_1_MODE_1 = RTN_SEND A`
`ENCODERS_2_MODE_1 = RTN_MIX`

ENCODERS – Control the selected parameter of the first 8 Return Tracks.

ENCODER ACCESSORY BUTTONS – Select the parameter (Volume, Pan or Send A – F respectively) the **ENCODERS** should control. The Status Bar will indicate the name of the selected parameter.

✔ **TIP:** *By default, when assigned to Volume, the **ENCODERS** will control the entire Volume range of Tracks. They can optionally be limited to 0db via the* `LIMIT_VOLUME_CONTROL_TO_0_DB` *setting in Settings-General.txt.*

Return Pan

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_PAN`

This Mode sets up the `ENCODERS` for controlling the Panning of the first 8 Return Tracks.

This Mode should **not** be used in the same Mode as Return Mix. For example, these assignments wouldn't work correctly:
`ENCODERS_1_MODE_1 = RTN_PAN`
`ENCODERS_2_MODE_1 = RTN_MIX`

`ENCODERS` – Control the Panning of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the first 8 Return Tracks.

Return Send

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_SEND` **x** (where **x** is the letter of the Send to control (in the range of A – L). `RTN_SEND B` for example.)

This Mode set up the `ENCODERS` for controlling one of the Send levels of the first 8 Return Tracks.

This Mode should **not** be used in the same Mode as Return Mix. For example, these assignments wouldn't work correctly:
`ENCODERS_1_MODE_1 = RTN_SEND A`
`ENCODERS_2_MODE_1 = RTN_MIX`

`ENCODERS` – Control one of the Send levels of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the first 8 Return Tracks.

Return Sends

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_SENDS`

This Mode sets up the `ENCODERS` for controlling Send levels of the first 8 Return Tracks.

`ENCODERS` – Control the level of the selected Send of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the Send (Send A – H respectively) the `ENCODERS` should control. The Status Bar will indicate the name of the selected Send.

Return Volume

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): `RTN_VOLUME`

This Mode sets up the `ENCODERS` for controlling the Volume of the first 8 Return Tracks.

This Mode should **not** be used in the same Mode as Return Mix. For example, these assignments wouldn't work correctly:
`ENCODERS_1_MODE_1 = RTN_VOLUME`
`ENCODERS_2_MODE_1 = RTN_MIX`

`ENCODERS` – Control the Volume of the first 8 Return Tracks.

`ENCODER ACCESSORY BUTTONS` – Select the first 8 Return Tracks.

✔ *TIP: By default, the `ENCODERS` will control the entire Volume range of Tracks. They can optionally be limited to 0db via the `LIMIT_VOLUME_CONTROL_TO_0_DB` setting in Settings-General.txt.*

Send

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **SEND x** (where **x** is the letter of the Send to control (in the range of A – L). **SEND B** for example.)

This Mode set up the **ENCODERS** for controlling one of the Send levels of the Tracks within the Grid Selector.

This Mode should **not** be used in the same Mode as Mix. For example, these assignments wouldn't work correctly:
ENCODERS_1_MODE_1 = SEND A
ENCODERS_2_MODE_1 = MIX

ENCODERS – Control one of the Send levels of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Sends

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **SENDS**

This Mode sets up the **ENCODERS** for controlling Send levels of the Tracks within the Grid Selector.

ENCODERS – Control the level of the selected Send of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – Select the Send (Send A – H respectively) the **ENCODERS** should control. The Status Bar will indicate the name of the selected Send.

Track

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **TRACK**

This Mode sets up the **ENCODERS** for controlling Mixer-related parameters of the current Track.

ENCODER 1 – Controls Volume.

ENCODER 2 – Controls Panning.

ENCODERS 3-8 – Control the first 6 Send levels.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

✔ **TIP:** *By default,* **ENCODER 1** *will control the entire Volume range of the Track. This can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in Settings-General.txt.*

Track Route

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **TRACK_ROUTE**

This Mode sets up the **ENCODERS** for controlling Routing and Mixer-related parameters of the current Track.

ENCODER 1 – Controls Volume.

ENCODER 2 – Controls Panning.

ENCODER 3 – Controls Monitoring. The Status Bar will indicate the new value.

ENCODER 4 – Controls Crossfade Assignment. The Status Bar will indicate the new value.

ENCODER 5 – Controls Input Type. The Status Bar will indicate the new value.

ENCODER 6 – Controls Input Channel. The Status Bar will indicate the new value.

ENCODER 7 – Controls Output Type. The Status Bar will indicate the new value.

ENCODER 8 – Controls Output Channel. The Status Bar will indicate the new value.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

✔ **TIP:** *By default,* **ENCODER 1** *will control the entire Volume range of the Track. This can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in Settings-General.txt.*

User

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **USER x** (where **x** is the letter of the Mode (in the range of A – F). **USER B** for example.)

This Mode set up the **ENCODERS** for MIDI mapping on MIDI channels 9 – 14. For example, **USER A** operates on channel 9 and **USER D** operates on channel 12.

ENCODERS – Used for MIDI mapping.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

Volume

MODE NAME (to specify in *Settings-Encoder Mode List.txt*): **VOLUME**

This Mode sets up the **ENCODERS** for controlling the Volume of the Tracks within the Grid Selector.

This Mode should **not** be used in the same Mode as Mix. For example, these assignments wouldn't work correctly:
ENCODERS_1_MODE_1 = VOLUME
ENCODERS_2_MODE_1 = MIX

ENCODERS – Control the Volume of the Tracks within the Grid Selector.

ENCODER ACCESSORY BUTTONS – No function in this Mode.

✔ **TIP:** *By default, the* **ENCODERS** *will control the entire Volume range of Tracks. They can optionally be limited to 0db via the* **LIMIT_VOLUME_CONTROL_TO_0_DB** *setting in* *Settings-General.txt*.

6   TROUBLESHOOTING

This section provides resolutions to common problems that you may run into when installing or using Arsenal_NK2. If you do not find a resolution to your problem here, please contact Support.

Windows Troubleshooting

I ran the provided Setup executable, but don't find any Arsenal_NK2 scripts listed under Control Surfaces.
If Live was running at the time you ran the Setup executable, you will need to restart Live. If this doesn't resolve the problem, then it's likely that you've installed Live in a protected location (such as Program Files). In this case, you will need to elevate the permissions on your Live installation directory so that you can write to it. Once this is done, re-run the Setup executable.

OS X Troubleshooting

I ran the provided Setup package, but don't find any Arsenal_NK2 scripts listed under Control Surfaces.
If Live was running at the time you ran the Setup package, you will need to restart Live.

When trying to run the Setup package, I receive a message stating "Setup can't be opened because it is from an unidentified developer".
Control-click or right click on the Setup package and select *Open* from the menu that appears.

General Troubleshooting

I reinstalled Live and Arsenal_NK2, but other Modes I purchased are not working/available.
Modes/Mode Packs are installed via their own installers (separate from the Arsenal_NK2 installer). You'll need to run each Mode/Mode Pack installer in order to restore access to the Mode(s) it installs.

7   SUPPORT

Email:
support@nativekontrol.com

Forum:
Beatwise Network

Feature Requests:
User Voice Forum