Arturia MiniLab Reason Remote Codec
User's Guide

Installing the Remote Files

The Remote installation consists of a Lua Codec and a pair of remotemaps. The Lua codec is composed of 3 files and handles the mapping of the MiniLab's hardware controls to named items that can be referenced and responded to in Reason. The pair of remotemap files serve to connect the named items to specific controls on Reason's various devices. The files are almost identical: a second version is needed since the sustain pedal hardware connected to the MiniLab can vary.

All of the files are enclosed in the included zip file in the proper folder structure needed for them to work properly. To install the codec, extract the archive into the folder listed below depending on your operating system. The extraction process should automatically place the files in their correct locations within the "Codecs" and "Maps" subfolders of the listed paths.

- Windows 7 (*other versions not tested*)
    - C:\Users\<*your username*>\AppData\Roaming\Propellerhead Software\Remote\
- Mac OSX (*not confirmed*)
    - Library:Application Support:Propellerhead Software:Remote

MiniLab Setup Basics

MiniLab Compatibility

The MiniLab codec is programmed to use the controller with its default settings. When you connect the MiniLab to your PC and it first powers up, the default settings are in place. Simply refrain from loading any MIDI Presets and everything should work as expected. If you inadvertently load a preset (or perhaps have one loaded for use with another application), just unplug the MiniLab and then reconnect it to get it back into a Reason-compatible state.

- You can tell if a MIDI Preset is loaded by holding down the Shift button on the MiniLab. If one of the pads lights up, then a preset is loaded.

Knobs

All 16 knobs on the MiniLab work as continuous encoders, so you don't have to worry about knobs and sliders jumping when you reassign the MiniLab to a different device or reassign a knob to a different control. The knobs also have acceleration built in, so moving a knob quickly will allow you to get from one end of a control's limit to the other in short order.

Pads

The first pad bank (pads 1-8) works as a velocity sensitive controller. The note values sent correspond to the first 8 pads of a Kong device.

Pads 9-16 serve as buttons to operate discrete (on/off or multiple choice) controls on Reason devices. When describing remote mappings, these pads are referred to as "Button 9" through "Button 16". These names are also shown in Reason when you manually edit remote mappings, as well as in the included remotemap file.

- To play the other 8 pads of a Kong, you can use the MiniLab's keyboard. Further details can be found in the Kong device details of the "Pre-Defined Remote Mappings" section of this document.

In the codec, Pad 16 also has a virtual version called "Bypasser". While normal button operation toggles between 1 and 0 (or max and min values if used on an analog control), the Bypasser toggles between 1 and 2 within a possible range of 0-2. If you map this item to an Off/Bypass/On switch on a Reason device (or if you lock the MiniLab to a device with this switch), you can use Pad 16 to toggle an effect between On and Bypass modes. This can be useful in a performance setting where you may want to cut an effect in and out without ever silencing the sound it's processing.

- If you use the Bypasser version of Pad 16, you'll most likely want to leave Button 16 unassigned, as it will continue to respond when the pad is pressed.

Visual feedback does not appear to be possible with the MiniLab, so buttons simply light up when pressed and go dark when released. When used as buttons, there will be no indication of whether the connected parameter is on or off.

Footswitch

Some footswitch controllers close the circuit when depressed, while others open it. Many keyboards detect the state of the footswitch when they're powered on and assume that its current state indicates the pedal is raised; however, the MiniLab does not perform this function. For this reason, there are 2 options built into the codec. If you connect your controller as a "MiniLab" and find that your sustain pedal is being held down in the software unless you step on the physical pedal, choose the "MiniLab (Inverted Pedal)" version instead.

- Technical note: In order to support these 2 versions of the codec, 2 separate remotemaps are required. However, they are functionally identical. The only difference in the 2 files (unless you edit them) is the Control Surface Model specified on line 4.

Keyboard, Pitch Bend & Mod Wheel

These are all configured to work as expected. Of course you can control other parameters on Reason's devices with the Pitch Bend and Mod Wheel sliders by using remote override assignments.

Prev/Next Buttons

The codec includes 2 button items called "Prev" and "Next". These are accessed by holding the MiniLab's Shift button and pressing the Octave Down (Prev) or Octave Up (Next) button. By default, these items are assigned to control the selection of "Keyboard Shortcut Variations". In Reason, these variations are enabled when you lock a control surface (the MiniLab in this case) to a Reason device. Switching keyboard shortcut variations then changes the functionality of the knobs and buttons without the need to manually reassign their remote override mappings. The primary and any alternative mappings for a device are assigned in the remotemap file included with the codec.

Conventions

These are the general conventions observed when the MiniLab is operating a Reason device.

Volume/Level

In general, if a device has a volume or level control it will be mapped to Knob 8 on the MiniLab.

Wet/Dry Mix

Similarly, Knob 16 will control the Wet/Dry mix amount when locked to a device that has this feature. In some cases it will be moved to Knob 8, especially for devices that don't have a level control.

Bypasser

For devices that have a Bypass (+On/Off) switch, Button 16 will be connected in its "Bypasser" mode, toggling the switch between the On and Bypass states when pressed.

Devices with a Small Number of Controls (*e.g. half-rack effects*)

In general, the MiniLab has ample knobs and buttons to control these devices with a single page of assignments. Knobs and buttons on the MiniLab will be assigned from left to right just as they appear on the virtual device except for Volume/Level and Wet/Dry controls, which will be assigned as described previously. In most cases, multi-selection controls will be operated by a button and not a knob.

Remote Mappings Favor Performance Parameters

For Reason devices that have large numbers of controls, such as synthesizers, and therefore require multiple "pages" of assignments (known in Reason's vernacular as "Keyboard Shortcut Variations"), the first page will generally favor the parameters that are most useful in a performance. Subsequent pages will tend to move in the direction of sound design.

Pre-Defined Remote Mappings

➢ Document Level Assignments

The following button assignments will apply unless the MiniLab is locked to a device that uses these controls for another purpose or they have been manually reassigned.

- Button 13
  - Select previous patch for target device
- Button 14
  - Select next patch for target device
- Button 15
  - Select previous track
- Button 16
  - Select next track

The following button assignments will apply when the MiniLab is locked to a device with multiple pages of control assignments defined (and presuming the buttons haven't been manually remapped).

- Prev Button (Shift + Octave Down)
  - Selects previous Keyboard Shortcut Variation (where applicable)
- Next Button (Shift + Octave Down)
  - Selects next Keyboard Shortcut Variation

➢ Devices

Master Section

To use the Master Section mappings, you'll need to lock the MiniLab to the main mixer channel (the one with the master compressor at the top). You can do this by right-clicking and using the context menu; the lock option is near the bottom.

- Top row of knobs
  - Knob 8 selects the remote base channel
  - Knobs 1-7 control pan settings, with Knob 1 assigned to the base channel
- Bottom row of knobs
  - Knob 16 controls the master fader
  - Knobs 9-15 control channel levels
- Previous and Next buttons
  - You can use the previous and next buttons to change the base channel in the mixer. This works just like Knob 8 (though Knob 8 is somewhat more efficient).

Mixer 14-2

- Knob 8 = Master level
- Knob 16 = Auxiliary return 1 level
- Page 1 = Level/Pan/Mute
  - Knobs control pan and level for channels 1-7
  - Buttons control muting
- Page 2 = EQ
  - Knobs control treble and bass for channels 1-7
  - Buttons control EQ on/off settings
- Page 3 = Level/Pan/Mute (Channels 8-14)
- Page 4 = EQ (Channels 8-14)

Line Mixer 6-2

- Knob 8 = Master level
- Knob 7 = Auxiliary return level
- Knobs 9-14 = Channel levels 1-6
- Page 1 = Pan
  - Knobs 1-6 control pan knobs for channels 1-6
- Page 2 = Aux Sends
  - Knobs 1-6 control Auxiliary sends

Combinator

- Knobs 1-4 = Rotaries 1-4
- Buttons 9-12 = Buttons 1-4
- Knob 5 = Mod Wheel
- Button 13 = Run Pattern Devices
- Button 14 = Bypass All FX

For many of the devices that follow, specifics of assignments will be left up to the user to discover, and instead this document will simply list a general description of each page's focus.

Subtractor

- Page 1 = Filters
- Page 2 = LFOs & Envelopes
- Page 3 = Oscillators & Noise
- Page 4 = Keyboard Performance Parameters
- Page 5 = Velocity Impact

Thor

- As of this writing, multiple pages are not configured. Users can assign MiniLab controls to Thor manually as desired. Here are the current assignments:
  - Knobs 1 & 2 = Rotaries 1 & 2
  - Knob 3 = Mod Wheel
  - Knob 8 = Master Volume
  - Knob 9 = Pitch Bend Range
  - Knob 10 = Polyphony
  - Knob 11 = Release Polyphony
  - Knob 12 = Portamento
  - Knob 13 = Portamento Mode
  - Buttons 9 & 10 = Buttons 1 & 2
  - Button 11 = Keyboard Mode
  - Button 12 = Trigger MIDI

- Button 13 = Trigger Step Sequencer

Malström

- Page 1 = Filters & Shaper
- Page 2 = Modulation
- Page 3 = Oscillator A
  - Note that oscillator waveform selection is not a remoteable item in Reason. Changing a waveform must be done onscreen.
- Page 4 = Oscillator B
- Page 5 = Keyboard Performance Parameters

NN-19

- *Not yet configured*

NN-XT

- *Not yet configured*

Dr. OctoRex

- Page 1 = Performance
  - Buttons 9-16 = Select Loop 1-8
  - Since all the MiniLab buttons are used for triggering loops, we have to use some knobs to control Dr. OctoRex's other buttons. Turn a knob clockwise to "push" a button and counterclockwise to "release" it.
  - Knob 1 = Run
  - Knob 2 = Select Trigger Next Loop Resolution
  - Knob 3 = Notes to Slot
  - Knob 4 = Enable Loop Playback
  - Knob 5 = Transpose
  - Knob 8 = Volume
- Page 2 = Programming 1
  - *Not yet configured*
- Page 3 = Programming 2
  - *Not yet configured*

Redrum

- Not yet configured

Kong

- MiniLab Pads 1-8 = Kong Pads 1-8
- Keyboard = Pads 9-16
  - The keys from G# to D# control Kong pads 9-16 when the MiniLab's octave setting is one click below its center position. Of course you can also control pads 1-8 from the keyboard using the C through G keys.
  - Note also that with the octave set to one click above center, each Kong pad can be controlled by three consecutive keys, with the lowest C on the keyboard as the first that triggers pad 1. Each octave higher moves what the low C key triggers up a row on the Kong, and you can control the whole range of pads 9-16 with MiniLab's keys - 3 for each pad - from three octaves above center (the highest note on the keyboard is unused).
- Knobs and Buttons 9-16
  - *Not yet configured*

RV7000 Advanced Reverb

- Button 9 = EQ Enable

- Button 10 = Gate Enable
- Button 11 = Remote Programmer Edit Mode
- Knobs 1-3 = Decay, HF Damp, HI EQ
- Knob 8 = Dry-Wet (secondary location)
- Knobs 9-16 = Remote Programmer Parameter Knobs
- Uses Button 16 as Bypasser

Scream 4

- Buttons 9-11 = Damage, Cut, Body On/Off
- Knobs 1-4 = Damage
- Knobs 5-7 = Cut
- Knobs 9-12 = Body
- Knob 8 = Master
- Uses Button 16 as Bypasser

BV512

- Button 9 = Band Count
- Button 10 = Equalizer/Vocoder
- Button 11 = Hold
- Button settings don't change with page selection - only knobs.
- Page 1 = Settings and 1st 8 Bands
  - Dry/Wet in secondary location on Knob 8
- Page 2 = All Bands 1 (Levels of Bands 1-16)
- Page 3 = All Bands 2 (17-32)
- Uses Button 16 as Bypasser

MClass Equalizer

- Left 8 Knobs = Frequencies & Gains
- Top Right 4 Knobs = Q Values
- Left 4 Buttons = Lo Shelf - Hi Shelf On/Off
- Button 13 = Lo Cut On/Off
- Uses Button 16 as Bypasser

MClass Stereo Imager

- Operated by Knobs 1-3 and Button 9 in same order as knobs and buttons on device.
- Button 10 toggles the Separate Out switch on the back of the Stereo Imager between its "Hi Band" and "Lo Band" settings.
- Uses Button 16 as Bypasser

MClass Compressor

- Operated by Knobs 1-6 and Buttons 9-11 in same order as knobs and buttons on device.
- Uses Button 16 as Bypasser

MClass Maximizer

- Operated by Knobs 1-3 and Buttons 9-14 in same order as knobs and buttons on device.
- Uses Button 16 as Bypasser

RV-7 Digital Reverb

- Button 9 steps through algorithms.
- Knobs 1/2/3 control Size/Decay/Damp
- Knob 8 = Dry/Wet (secondary location)
- Uses Button 16 as Bypasser

DDL-1 Digital Delay Line

- Knob 1 = Delay Time in Milliseconds
- Knob 9 = Delay Time in Steps
- Knob 2 = Feedback
- Knob 3 = Pan
- Knob 8 = Dry/Wet (secondary location)
- Uses Button 16 as Bypasser

D-11 Foldback Distortion

- Operated by Knobs 1-2 in same order as knobs on device.
- Uses Button 16 as Bypasser

ECF-42 Envelope Controlled Filter

- Operated by Knobs 1-8 in same order as knobs on device.
- Button 9 = Mode
- Uses Button 16 as Bypasser

CF-101 Chorus/Flanger

- Operated by Knobs 1-4 and Buttons 9 & 10 in same order as knobs and buttons on device.
- Uses Button 16 as Bypasser

PH-90 Phaser

- Operated by Knobs 1-2 in same order as knobs on device.
- Button 9 = LFO Sync On/Off
- Uses Button 16 as Bypasser

UN-16 Unison

- Button 9 = Voice Count
- Knob 1 = Detune
- Knob 8 = Dry/Wet (secondary location)
- Uses Button 16 as Bypasser

COMP-01 Auto Make-Up Gain Compressor

- Operated by Knobs 1-4 in same order as knobs on device.
- Uses Button 16 as Bypasser

PEQ-2 Parametric Equalizer

- Uses Knobs 1-3 for Filter A parameters
- Uses Knobs 9-11 for Filter B parameters
- Button 9 = Filter B On/Off
- Uses Button 16 as Bypasser

Matrix Analog Pattern Sequencer

- Knob 1 operates Run button
- Knob 9 chooses Bank
- Buttons 9-16 select patterns 1-8
- Knob 16 controls Resolution

RPG-8 Monophonic Arpeggiator

- Knobs 1-5 and 8-10 are utilized. Experiment to find out how they're mapped.
- All of the buttons are used within each page. On the first page, Button 10 controls the RPG-8's On/Off switch.

- Knobs have the same functions for all pages, only the button assignments change.
- Page 1 = Arpeggiation
- Page 2 = Pattern control, Steps 1-8
- Page 3 = Pattern control, Steps 9-16

ReGroove Mixer

- *Not yet configured*

ID8 Instrument Device

- Knobs 1 & 2 control the selected instrument's 2 parameters.
- Knobs 9 & 10 control category and sound selection.
  - As another option, you can use knob 13 (the first in the lower right knob group) to scroll quickly through all 36 available patches.
- Knob 8 = Volume (std.)
- Buttons 9-12 = Sound A-D
- Buttons 13-14 = Previous/Next Category

Device Documentation to be continued...