# 4X6 VOICES 1V/OCTAVE TO MIDI NOTES
ADDAC222

| INPUT 1 | INPUT 2 | INPUT 3 | INPUT 4 |
|---|---|---|---|

## MIDI CHANNEL

CHANNEL  BANK

NOTE1 OFF

VELOCITY

0    127

OCTAVES    VOICES

+1    1
0    3
+2    6

+0    +12

TRANSPOSE

ADJ.1   ADJ.2   ADJ.3   ADJ.4

USB MIDI

CV IN1   CV IN2   CV IN3   CV IN4

## ALL NOTES OFF/NOTE ONs

INPUT 1   INPUT 2

VELOCITY1   VELOCITY2   VELOCITY3   VELOCITY4

INPUT 3   INPUT 4

NOTE OFF1   NOTE OFF2   NOTE OFF3   NOTE OFF4   MIDI IN   MIDI OUT

2016
ADDAC SYSTEM

# ADDAC222 1V/OCT TO MIDI NOTES
USER'S GUIDE . REV01

# Welcome to:
# ADDAC222 1V/OCT TO MIDI NOTES USER'S GUIDE
Revision.01 August.2019

## CONTROLS DESCRIPTION

**MIDI Channel:**
Each channel can be set to an independent MIDI Channel - from 1 to 9

**VELOCITY:**
Sets the Velocity of the generated MIDI notes.

**TRANSPOSE:**
Sets an offset from 0 to +12 semi-tones to the incoming CV input.

**ADJ. TRIMMER:**
Calibrates the 1v/oct input

**1V/OCTAVE CV INPUTS**

**VELOCITY CV INPUTS**

**NOTE OFF TRIGGER/GATE INPUTS**

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INPUT 1 INPUT 2 INPUT 3 INPUT 4

MIDI CHANNEL
CHANNEL BANK

NOTE1 OFF

VELOCITY
0 127

OCTAVES VOICES
+1 1
0 3
+2 6

TRANSPOSE
+0 +12

ADJ.1 ADJ.2 ADJ.3 ADJ.4 ALL NOTES OFF/NOTE ONs

CV IN1 CV IN2 CV IN3 CV IN4 INPUT 1 INPUT 2

VELOCITY1 VELOCITY2 VELOCITY3 VELOCITY4 INPUT 3 INPUT 4

NOTE OFF1 NOTE OFF2 NOTE OFF3 NOTE OFF4 MIDI IN MIDI OUT

USB MIDI

2016
ADDAC SYSTEM

**NOTE 1 OFF:**
Depending on the Mode selected, either cancels the oldest active note or sustains notes

**OCTAVE Offset & VOICES:**
Sets an offset from 0 to +2 octaves to the incoming CV input. Sets the number of possible active notes.

**USB MIDI IN/OUT**

**ALL NOTES OFF / NOTE ONs:**
Depending on the Mode selected, either cancels all active notes or triggers new notes.

**DIN5 MIDI IN/OUT**

# OPERATION PRINCIPLE

This module allows the conversion of CV signals to a stream of MIDI notes.
A MIDI Note is defined by 3 variables, MIDI Channel, Note Number and Velocity.
The MIDI Channel can be set from 1 to 9.
The Note Number is converted from the 1v/octave CV input and quantized to the closest MIDI note.
The Velocity control is read at the moment of the new note generation.

Diferent Operation Modes define how the stream of notes will be generated.

The 1v/octave CV Input signal can be offsetted prior to the note generation with the Octave switches
(from 0 to +2 octaves) and with the Semitone konb (from 0 to +12 semitones)

The ADJ. (ADJUST) Trimmer calibrates the 1v/octave CV input. This control comes calibrated and should
only be trimmed

# ADJUST TRIMMERS

These went through precision calibration at our office and most probably won't need any change, however it can be adjusted for better conversion of a specific quantizer or keyboard. Beware not to change them without your mind set to the task ahead, for example don't try it before a gig!
Calibration can be made by sending precision 1v and 4v while always expecting a C note on MIDI out (3 octaves apart). If a B or C# comes on at 4v then you should rotate the trimmer accordingly to go up or down until a C comes on at 4v.

# VOICES OPERATION

The voices operate in an old school synth fashion, in wrap-around mode.
For ex. Imagine you're sending a cv signal from a sequencer every time the sequencer goes to a new step you'll hear a new note being played. If you set it to 1 voice, then every time a new note comes in from the sequencer the midi output plays the new note and cancels the previous note. In 3 voice mode the module will output the first note on the first cv change, a second note on the second cv change, a third note on the third cv change. By now all 3 notes will be heard. Once the fourth cv change comes in the module will cancel the first note and change it to the fourth cv input value, then the fifth cv change will replace the second note and so on and on...
This will be the same method as for 6 voices but the wrap-around will happen after 6 cv changes allowing 6 notes to be heard at the same time.
The 3 and 6 voices modes will only work with polyphonic midi devices.

# OPERATION MODES

There are 3 Operation Modes: Continuous, Triggered and Gated.

MODE 1 - Continuous:
In this Mode a new note will be generated every time a CV change is detected at the 1v/oct CV input.
The [NOTE1 OFF] push buttons and trigger inputs will cancel the oldest active note.
The [ALL NOTES OFF / NOTE ONs] trigger inputs will cancel every note active at once.

MODE 2 - Triggered
In this Mode a new note will be generated every time a Trigger is detected at the [ALL NOTES OFF / NOTE ONs] inputs.
The [NOTE1 OFF] push buttons and Trigger inputs will cancel the oldest active note.

MODE 3 - Gated
In this Mode a new note will be generated every time a Gate is detected at the [ALL NOTES OFF / NOTE ONs] inputs. This note will be sustained until the input Gate goes Off, then the note will be canceled.
The [NOTE1 OFF] push buttons and Gate inputs will Sustain notes until the Gate is Off, overriding the canceling of notes coming from the [ALL NOTES OFF / NOTE ONs] Gate Offs.

# MODES MENU

First make sure no inputs are connected to the NOTE OFF 1 to 4 jacks.
To enter the Mode Menu press and hold all four NOTE1 OFF buttons for 3 seconds.
The button lights will change and show the menu state:
MODE 1 = Button led is off
MODE 2 = Button led is on
MODE 3 = Button led is flashing

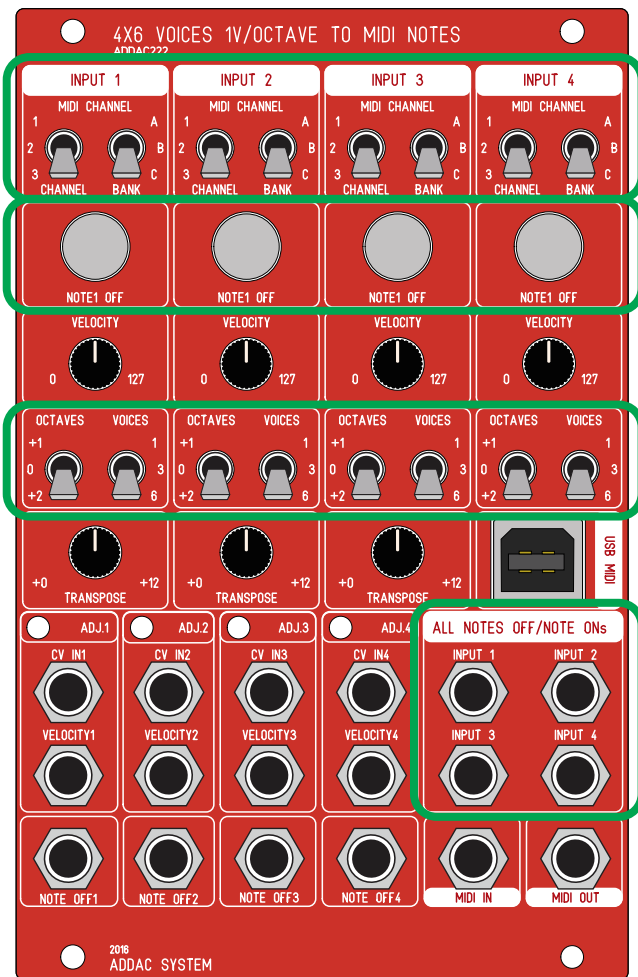Press the desired button channel to advance to the desired Mode.

The Menu will exit itself when no button is pressed for 5 seconds.
The settings are saved once it exits the menu and will be stored to be recalled the next session even after powering down.

# CHEAT SHEET

**MIDI CHANNEL**

| | |
|---|---|
| CHANNEL 1 | |
| CHANNEL 2 | BANK A |
| CHANNEL 3 | |

| | |
|---|---|
| CHANNEL 4 | |
| CHANNEL 5 | BANK B |
| CHANNEL 6 | |

| | |
|---|---|
| CHANNEL 7 | |
| CHANNEL 8 | BANK C |
| CHANNEL 9 | |

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|---|---|---|---|

MIDI CHANNEL

1 2 3 — CHANNEL     A B C — BANK

NOTE1 OFF

VELOCITY  0 ... 127

OCTAVES  +1 0 +2     VOICES  1 3 6

TRANSPOSE  +0 ... +12

ADJ.1 ADJ.2 ADJ.3 ADJ.4

CV IN1 CV IN2 CV IN3 CV IN4

VELOCITY1 VELOCITY2 VELOCITY3 VELOCITY4

NOTE_OFF1 NOTE_OFF2 NOTE_OFF3 NOTE_OFF4

ALL NOTES OFF/NOTE ONs

INPUT 1  INPUT 2  INPUT 3  INPUT 4

MIDI IN   MIDI OUT

USB MIDI

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**NOTE1 OFF**

| MODE 1 : | TRIGGER CANCELS OLDEST NOTE |
|---|---|
| MODE 2 : | TRIGGER CANCELS OLDEST NOTE |
| MODE 3 : | SUSTAIN NOTES WHILE GATE ON |

**OCTAVES**

| +1 OCTAVE |
|---|
| NO OFFSET |
| +2 OCTAVES |

**VOICES**

| 1 VOICE |
|---|
| 3 VOICES |
| 6 VOICES |

**ALL NOTES OFF / NOTE ONs**

| MODE 1 : | CANCELS ALL ACTIVE NOTES |
|---|---|
| MODE 2 : | NEW NOTE ON TRIGGER |
| MODE 3 : | NEW NOTE WHILE GATE ON |

For feedback, comments or problems please contact us at:
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