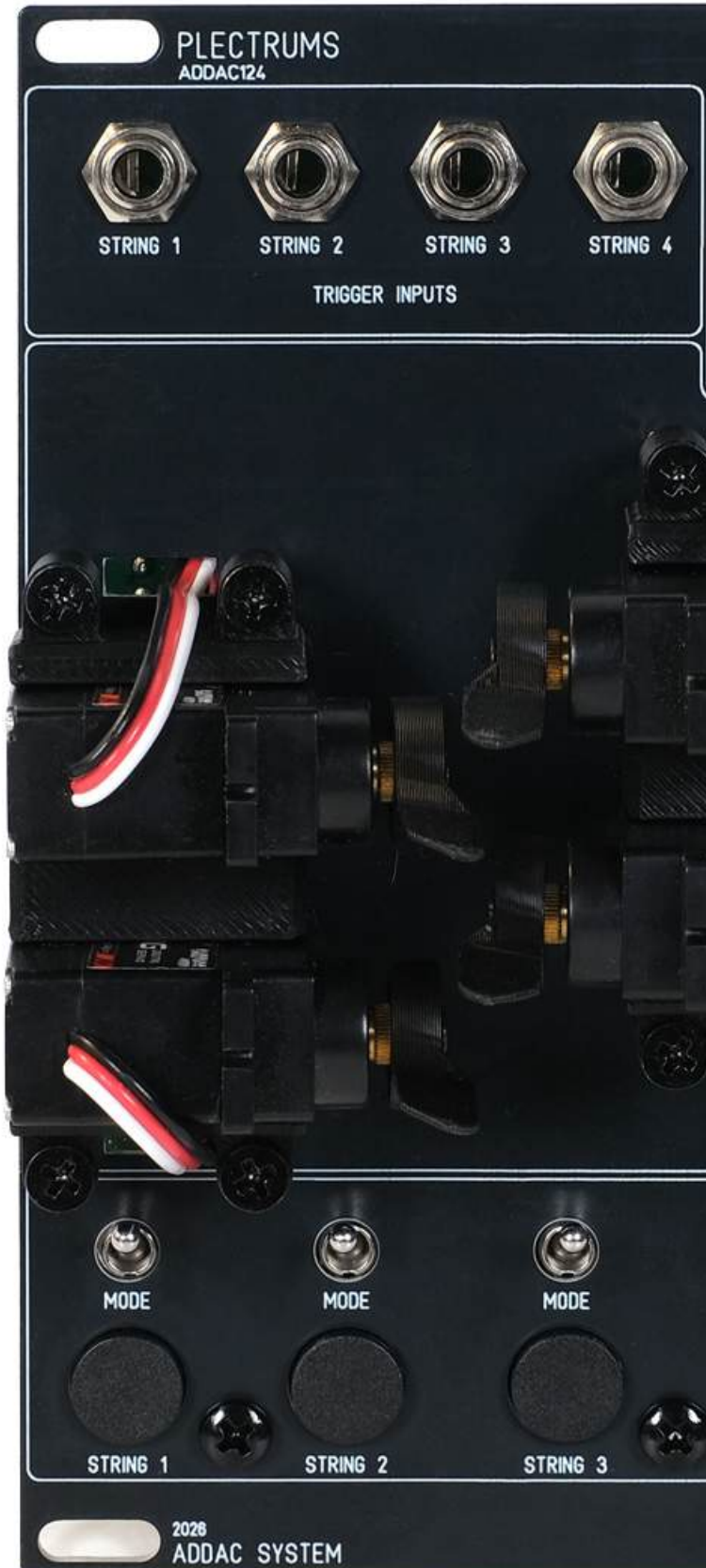


**ADDAC System**  
Instruments for Sonic Expression  
Est.2009

# INTRODUCING ADDAC124 PLECTRUMS



USER'S GUIDE . REV01  
June.2026

MODE



**ADDAC**  
System

From Portugal with Love!

# Welcome to: ADDAC124 PLECTRUMS USER'S GUIDE

Revision.01 June.2026

14HP  
idle: 120mA on +12V  
extreme use: 920mA on +12V  
20mA on -12V

## WELCOME

This is our Plectrum module, featuring a servo per string allowing to pluck each string independently either from their dedicated push-buttons, incoming triggers or via MIDI.

In Pluck mode the servo will move about 20 degrees effectively plucking the string.

In Harmonic Mode the servo only moves about 10 degrees stopping at vertical position to lightly tap the string so that harmonics can be heard. For this to happen the user needs to place the module in specific locations, for ex. at half the string length, at 2/3 the string length or 3/4 of the string length.

For effective use up to 3 modules can be daisy chained, one plucking the strings and 2 others to engage different harmonics.

To change between modes 4 switches features 3 states:  
UP: disables triggers and MIDI inputs while still allowing push buttons to trigger the PLECTRUM.  
MIDDLE: Pluck mode, all inputs are active.  
DOWN: Harmonic mode, all inputs are active.

### Plectrum Height Calibration

The user can adjust the height of the plectrums with the screws. For Pluck mode they need to be quite low, for Harmonic mode they need to be raised about 4mm.

### Plectrum Calibration

Pressing any push button for longer than 2 seconds will enter calibration state, the plectrum will start going back and fourth automatically then at every tap of the push button it will offset its action by 2 degrees, once the desired position is reached holding the button down for 2 seconds saves the current position and exits the calibration state.

12 extra spare plectrums are provided.  
(.stl 3D printing files available per request)

The current consumption of this module is somewhat different for standard modules, the idle consumption is about 120mA on the +12V, when a servo moves the current can go momentarily up by 200mA, if all servos move at the same time there will be a momentary peak of about 920mA.



# ADDAC124 MIDI IMPLEMENTATION

## MIDI TO PLECTRUMS

When connected to MIDI device the module can receive either a NOTE or a CC message to trigger the desired plectrum.

Daisy chaining up to 3 modules is possible using a single midi to trigger all modules.

Modules are connected via pinheaders on the back with the provided cable.

All MIDI channels are active.

CC messages are active from CC1 to CC12.

MIDI notes are all active, any same note on any octave triggers the same plectrum.

MIDI IMPLEMENTATION

		MIDI CC	MIDI NOTE (on any octave)
MODULE #1 1st in Chain	SERVO 1	1	C
	SERVO 2	2	C#
	SERVO 3	3	D
	SERVO 4	4	D#
MODULE #2 2nd in Chain	SERVO 1	5	E
	SERVO 2	6	F
	SERVO 3	7	F#
	SERVO 4	8	G
MODULE #3 3rd in Chain	SERVO 1	9	G#
	SERVO 2	10	A
	SERVO 3	11	A#
	SERVO 4	12	B

INCOMING USB



MODULE #1  
CC 1 to 4  
NOTE C to D#

MODULE #2  
CC 5 to 8  
NOTE E to G

MODULE #3  
CC 9 to 12  
NOTE G# to B

For feedback, comments or problems please contact us at:  
[addac@addacsystem.com](mailto:addac@addacsystem.com)