ADDAC System
Instruments for Sonic Expression
Est.2009

INTRODUCING
ADDAC SYSTEM EXPRESSION CONTROL

USER'S GUIDE . REV01
November.2025

ADDAC System

From Portugal with Love!

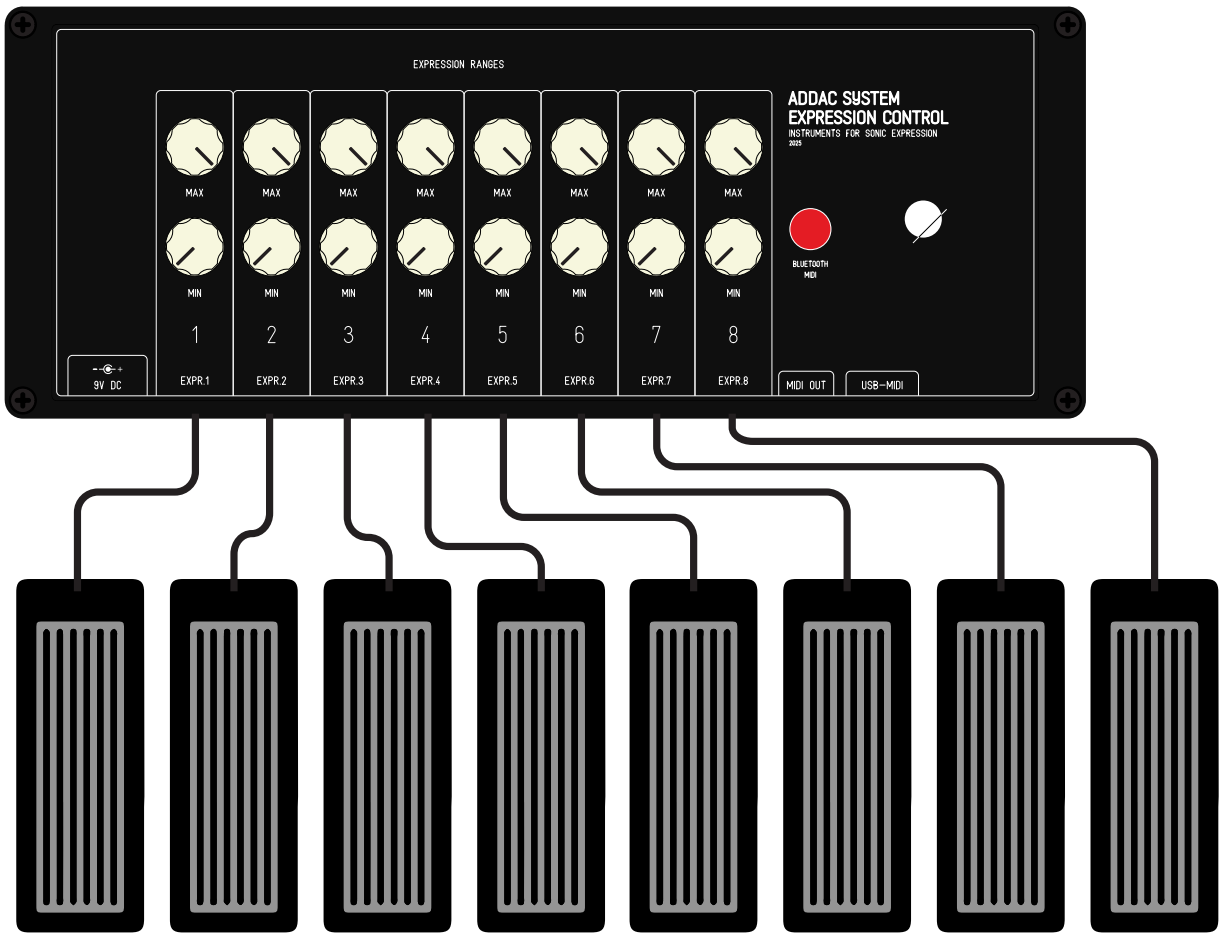
Welcome to:
ADDAC SYSTEM
EXPRESSION CONTROL USER'S GUIDE

Revision.01 November.2025

WELCOME

At ADDAC System we love expression pedals, they are simple and effective control devices that are as ergonomic as responsive. They can be of great use when our hands are occupied playing or operating other devices leaving our feet free to operate other controls.

During the years we made several Eurorack modules making use of expression pedals. This time we bring a standalone plug n'play MIDI Controller for TRS Expression Pedals, it allows 8 expression pedals to be connected into it and outputs Control Change messages via either USB-C MIDI, Bluetooth MIDI or standard DIN5 3.5mm jack. Allowing it to be connected to any synth, computer, tablet or phone.



Enclosure 3D Printed in PETG with aluminium front panel.
Provided with a power adapter and a 3.5mm midi to DIN5 adapter
Expression pedals not provided.

MIDI IMPLEMENTATION

MIDI OUTPUTS

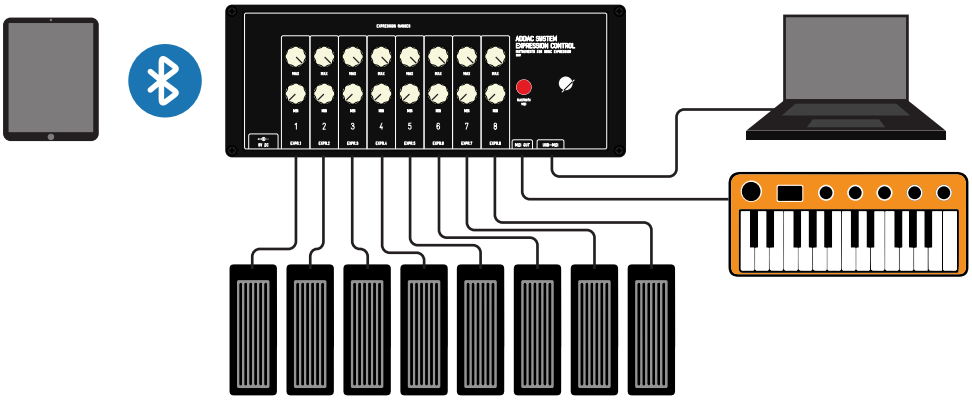
There's 3 MIDI outputs available and they can all be used at the same time.

These options allow different devices to be connected depending on the user preference, for ex:
Use 4 expression inputs to control several MIDI parameters on some software via USB-C or Bluetooth MIDI
Use the 4 remaining expression inputs to control 4 parameters on a synthesizer using the 3.5mm jack and DIN5 adapter.

USB-C MIDI . Useful if the MIDI device is close to the Servo Control box.
Simply plug into a device a look for Port:
ADDAC USB SERVO CONTROL

Bluetooth MIDI . Useful if the MIDI device is far from the Servo Control box.
Look for the device named:
ADDAC BT SERVO CONTROL

DIN5 MIDI . Useful for synthesizers or other standalone MIDI devices with a DIN5 input.
Plug to any device using the 3.5mm jack or through our DIN5 adapter.

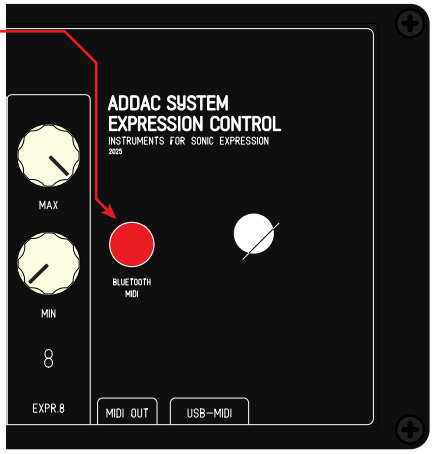


BLUETOOTH BUTTON BEHAVIOUR

There's 2 button states,
pressing the button switches states.

STATE 1:
BLINKING . Waiting for any device to connect to it.
Once a connection is established the button led will stay lit.

STATE 2:
OFF . Bluetooth disabled, button led is unlit.

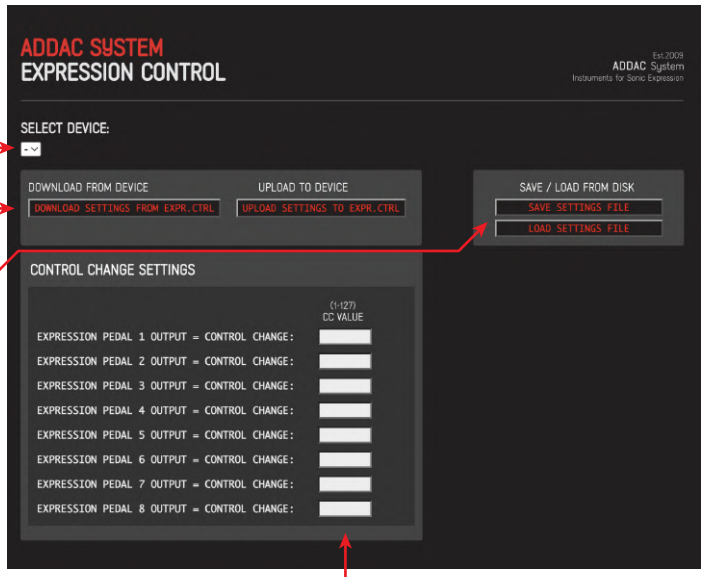


EXPRESSION CONTROL CONFIGURATION

WEBPAGE

All configuration is done using Google Chrome, our configuration webpage directly connects to the module via MIDI and works as follows:

Access the website using Google Chrome:
https://media.addacsystem.com/ADDAC_EXPRESSION/



1. SELECT DEVICE:
Select ADDAC EXPRESSION CONTROL from the available midi devices

2. DOWNLOAD / UPLOAD TO MODULE
#A. Clicking **[DOWNLOAD SETTINGS FROM EXPR. CTRL]** will load the table with all the module's stored data.

#B. Clicking **[UPLOAD SETTINGS TO EXPR. CTRL]** will popup a warning message to confirm overwriting the module's currently stored data with the table data.

3. SAVE / LOAD FROM DISK
Allows to save and load presets from the computer disk

#A. Clicking the **[SAVE SETTINGS FILE]** button will download and save the current data into a text file.

#B. Clicking the **[LOAD SETTINGS FILE]** button will load the data stored in the text file and update the table.

4. CC VALUES
In this table the user can configure the CC VALUE for each EXPRESSION PEDAL CHANNEL

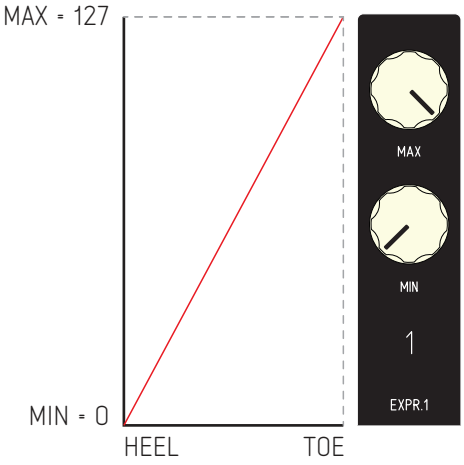
HEEL › TOE ACTION

MIN MAX CONTROLS

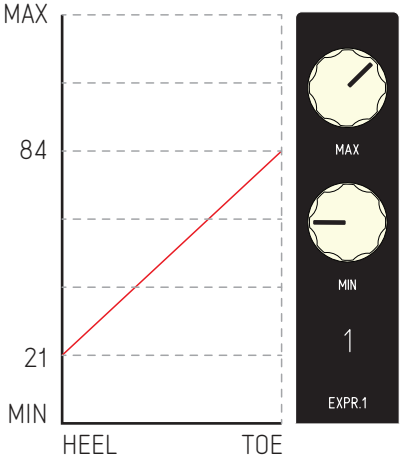
These are also used to invert the Heel › Toe action.
With [MIN] fully counter clockwise and [MAX] fully clockwise the Heel position outputs a CC value of 0 and the Toe position outputs 127.
If the MIN and MAX knobs are inverted, MIN knob above MAX knob then the Heel › Toe action will also be inverted.
For example, with [MIN] fully clockwise and [MAX] fully counter clockwise the Heel position outputs a CC value of 127 and the Toe position outputs 0.

Here's a few graphic examples of the Heel › Toe action together with the MIN and MAX knobs setting the output range

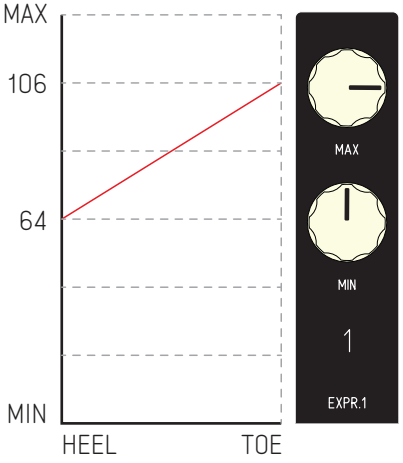
REGULAR ACTION



Expression pedal range
CC Value: 0 - 127

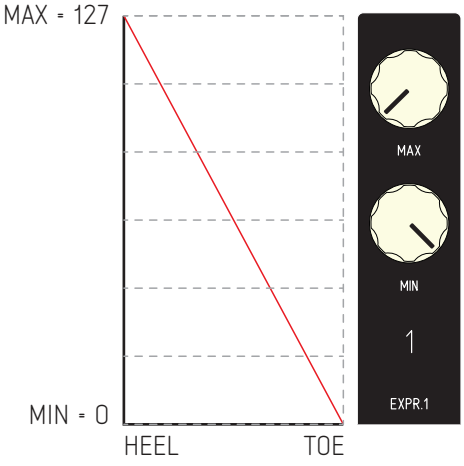


Expression pedal range
CC Value: 21 - 84

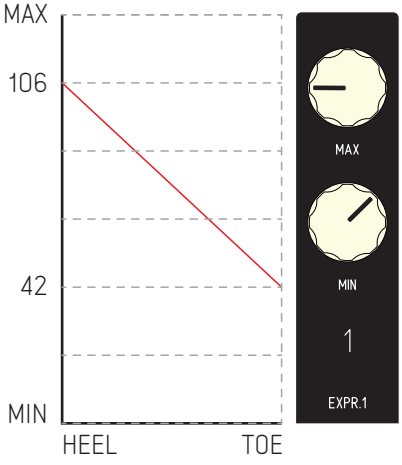


Expression pedal range
CC Value: 64 - 106

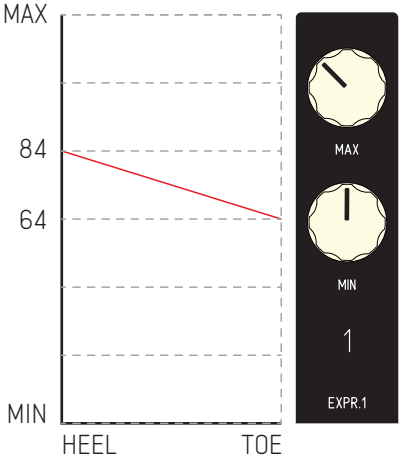
INVERTED ACTION



Expression pedal range
CC Value: 127 - 0



Expression pedal range
CC Value: 106 - 42



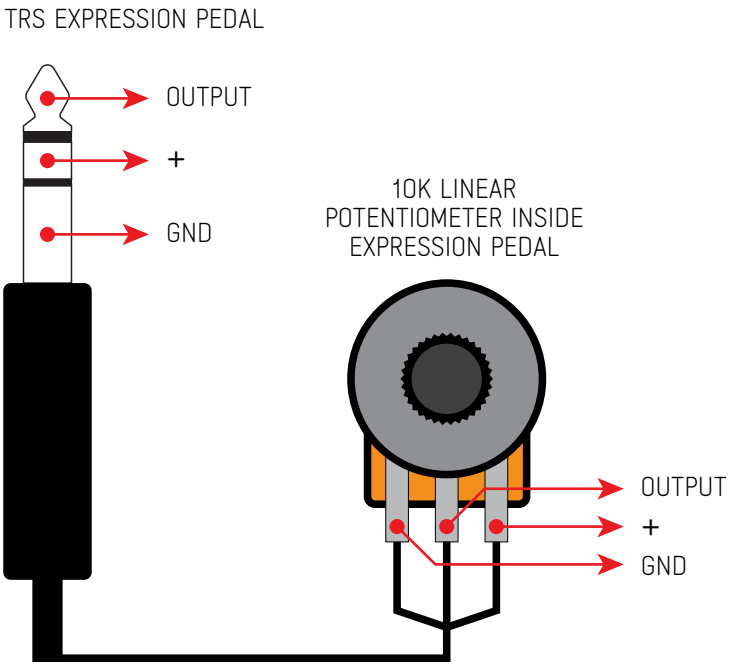
Expression pedal range
CC Value: 84 - 64

EXPRESSION PEDALS

Choosing a TRS Expression Pedal

There are many TRS expression pedals in the market, from our experience cheap ones like the Lead Foot LFX-1 or M-Audio EX-P work great, if looking for a compact and rugged solution the Digitech DOD Mini Expression Pedal is a great option. If looking for no compromises the best one we tried is still the Headrush Expression Pedal.

If choosing other options look for a TRS style expression pedal with a Linear 10k potentiometer.



CONNECTING TO ADDAC SERVO CONTROLLER

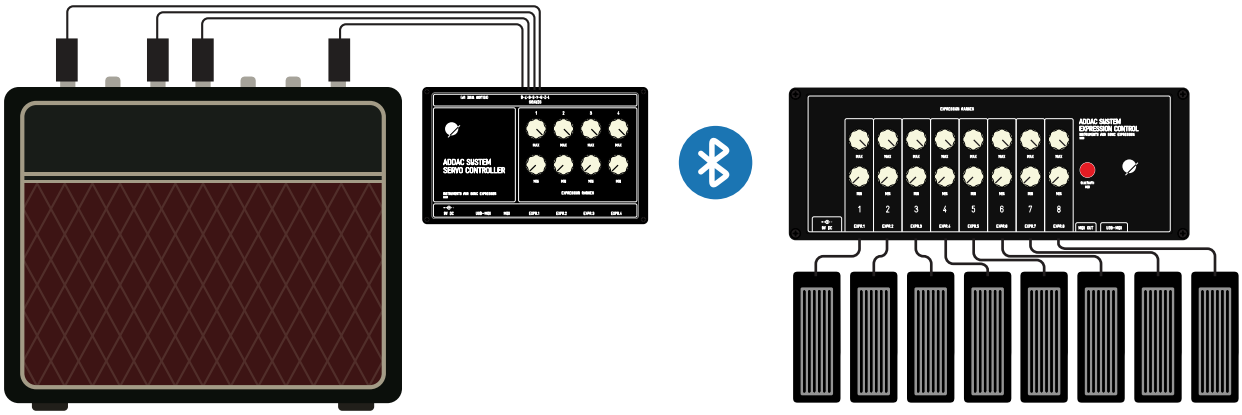
Remote Expression Pedal Operation

An extra use of the ADDAC Expression Control is to connect directly to our ADDAC SERVO CONTROLLER via Bluetooth MIDI and control all 8 servo motors using the expression pedal inputs.

To connect press the Bluetooth MIDI button for 3 seconds, it will look for the ADDAC Servo Controller, the led will blink while connecting, once connected the led will remain lit.

Find more about ADDAC SYSTEM SERVO CONTROLLER here:
http://addacsystem.com

ADDAC SERVO CONTROLLER connected to ADDAC Expression Control over Bluetooth MIDI



For feedback, comments or problems please contact us at:
addac@addacsystem.com

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