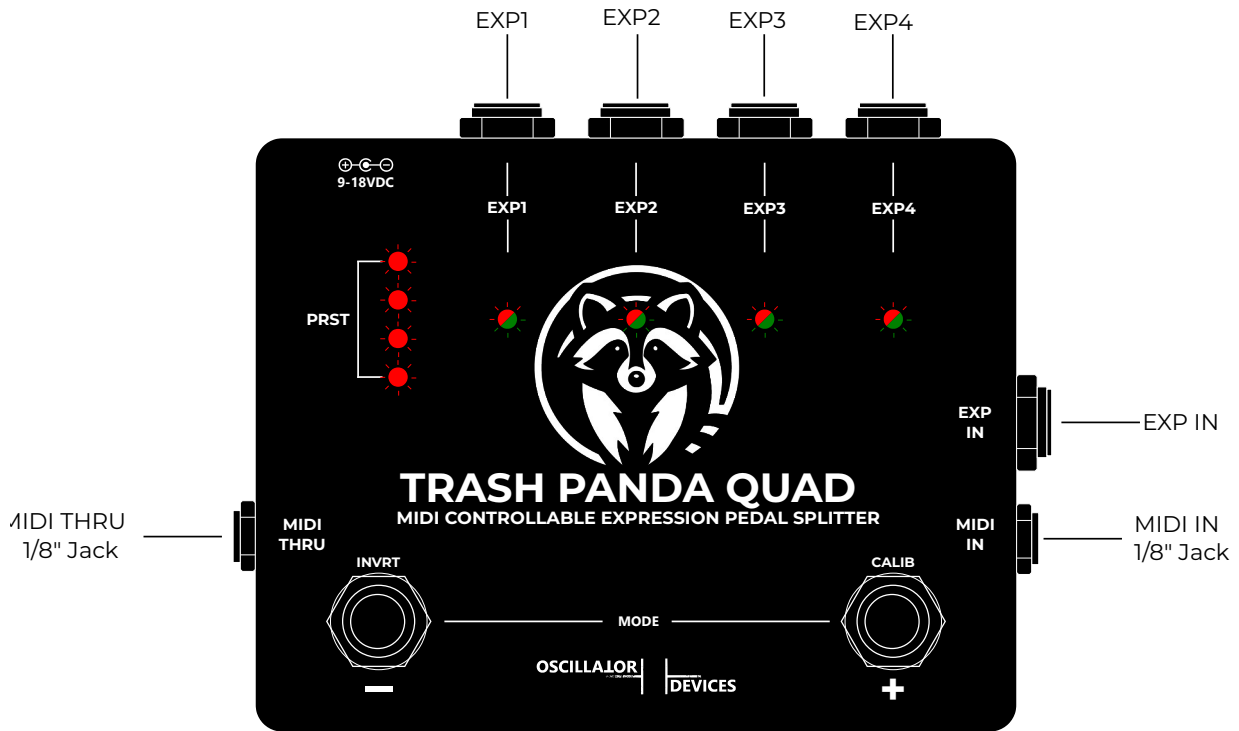
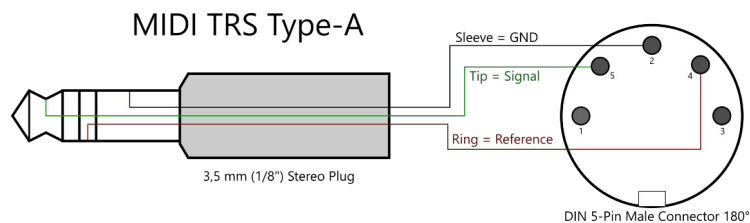


# TRASH PANDA QUAD – Quick Start



## Connections

- **EXP1/2/3/4:** Expression outputs. 1/4" stereo jack sockets wired like a standard expression pedal with a 50k potentiometer and thus will fit most common pedals. Every **EXP** has a corresponding dual color LED to represent the state of the expression output. It lights green in the heel position, shifts to orange in the middle position and gradually fades to red towards the toe position.
- **EXP IN:** The expression pedal input. Connect a standard expression pedal (resistance does not matter) here to directly control one or more of the expression outputs.
- **Power Supply:** 9-18V. 2.1mm barrel connector, center negative. This corresponds to the standard “Boss-Style” power supply. Current consumption maximum 180mA.
- **MIDI In/Thru:** 1/8" stereo jack sockets according to MIDI standard for MIDI TRS (**MIDI TRS-Type A**).



Please disconnect all devices from the power supply, before making any connections.

**Caution:** Under no circumstances should there be more than +5V or negative voltages be applied to any expression socket.

# Modes

The *Trash Panda Quad* has three main modes. By pressing and holding both footswitches, you can switch between *Manual Mode* and *Preset Mode*.

## Mode 1: Manual Mode

When the preset LEDs show the position of the expression pedal, the *Trash Panda Quad* is in *Manual Mode*.

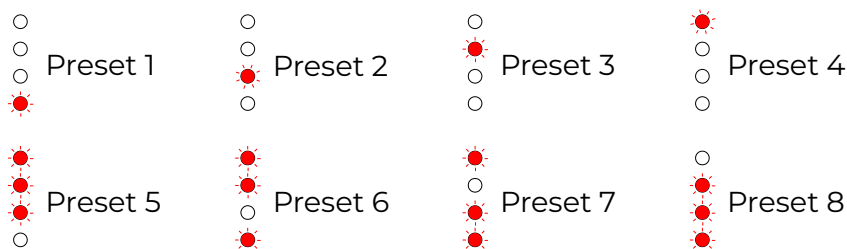
Footswitch	Action	Function
+/ <b>CALIB</b> Footswitch	Press	Selects the next used expression out to be active
	Hold 3s	Enters the calibration procedure (see section Fehler: Verweis nicht gefunden)
-/ <b>INVRT</b> Footswitch	Press	Selects the previous used expression output to be active
	Hold 3s	Inverts the active expression out (This is saved permanently)

## Mode 2: Preset Mode

When one or more of the preset LEDs light up independent from the position of the expression pedal, the *Trash Panda Quad* is in *Preset Mode*.

Footswitch	Action	Function
+/ <b>CALIB</b> Footswitch	Press	Selects the next preset
	Hold 3s	Enters the calibration procedure (see section Fehler: Verweis nicht gefunden)
-/ <b>INVRT</b> Footswitch	Press	Selects the previous preset
	Hold 3s	Enters the preset save procedure (see section Preset Save Procedure)

There are 8 presets that correspond to the preset LEDs like this:



## Preset Save Procedure

To save a new preset, proceed like this.

- Make sure you're in **Preset Mode** and the preset you want to overwrite is selected.
- Press and hold the left footswitch (-/**INVRT**) for 3s. The preset LEDs of the selected preset starts flashing along with the LED of **EXP1**. Use the same footswitch (-/**INVRT**) to choose if **EXP1** will be:
  - Active with normal direction (LED flashes green)
  - Active with inverted direction (LED flashes red)
  - Inactive (LED is off)

You can cycle through these three options as many times as you like.

- When the desired behaviour is set, press the right footswitch (+/**CALIB**) to proceed to the next **EXP**.
- When all four **EXP** are set the way you like it, press and hold the right footswitch (+/**CALIB**). The LEDs flash fast a few times. The preset is saved.

To cancel the Preset Save Procedure, press and hold the left footswitch (-/**INVRT**).

# MIDI Implementation

## Controlling the Expression Outputs

The expression outputs have 256 steps. The first two commands (20/40/60/80 and 21/41/61/81) distribute the entire range over 128 steps. The high-resolution commands (22/42/62/82 and 23/43/63/83) are used to set a precise value.

CC					Function
EXP1	EXP2	EXP3	EXP4	#	
20	40	60	80	0-127	Expression out from heel (0) to toe (127)
21	41	61	81	0-127	Expression out from toe (0) to heel (127)
22	42	62	82	0-127	Expression out from heel (0) to middle position (127)
23	43	63	83	0-127	Expression out from middle position (0) to toe (127)

To set all four expression outputs to the same value at the same time, use the following command.

CC	#	Function
102	0-127	All Expression outs from heel (0) to toe (127)

## Controlling Active Expression Outputs

When in *Preset* or *Manual Mode*, the active expression outputs can be selected with the following commands. To control which expression outputs are routed to the expression pedal, use the following commands. An active output is routed to the expression pedal, a deactivated output is not. Note that these are set back as soon as you select a new preset (*Preset Mode*), or select a different expression out (*Manual Mode*).

CC	#	Function
103	0-3	Activate EXP1 (0), EXP2 (1), EXP3 (2), or EXP3 (2)
104	0-3	Deactivate EXP1 (0), EXP2 (1), EXP3 (2), or EXP3 (2)

With the following command, the expression value of the active expression outs can be set.

CC	#	Function
105	0-127	Set expression value from all active expression outs from heel (0) to toe (127)

To save on MIDI commands there are commands to activate/deactivate all expression outputs at the same time. Which one is selected is binary encoded. CC 106 00 is all off, CC 106 15 is all on, for example.

CC	#	EXP1	EXP2	EXP3	EXP4
106	00	Deactivated	Deactivated	Deactivated	Deactivated
	01	<b>Activated</b>	Deactivated	Deactivated	Deactivated
	02	Deactivated	<b>Activated</b>	Deactivated	Deactivated
	03	<b>Activated</b>	<b>Activated</b>	Deactivated	Deactivated
	04	Deactivated	Deactivated	<b>Activated</b>	Deactivated
	05	<b>Activated</b>	Deactivated	<b>Activated</b>	Deactivated
	06	Deactivated	<b>Activated</b>	<b>Activated</b>	Deactivated
	07	<b>Activated</b>	<b>Activated</b>	<b>Activated</b>	Deactivated
	08	Deactivated	Deactivated	Deactivated	<b>Activated</b>
	09	<b>Activated</b>	Deactivated	Deactivated	<b>Activated</b>
	10	Deactivated	<b>Activated</b>	Deactivated	<b>Activated</b>
	11	<b>Activated</b>	<b>Activated</b>	Deactivated	<b>Activated</b>
	12	Deactivated	Deactivated	<b>Activated</b>	<b>Activated</b>
	13	<b>Activated</b>	Deactivated	<b>Activated</b>	<b>Activated</b>
	14	Deactivated	<b>Activated</b>	<b>Activated</b>	<b>Activated</b>
15	<b>Closed</b>	<b>Closed</b>	<b>Closed</b>	<b>Closed</b>	

# MIDI Channel

The *Trash Panda Quad* ships in omni mode (i.e. it responds to every channel). The MIDI channel can be set in two ways. With the **+/**CALIB****-Footswitch, or with a MIDI command.

To change the MIDI channel using the **+/**CALIB****-Footswitch, proceed as follows:

1. Disconnect the device from the power supply
2. Press and hold the **+/**CALIB****-Footswitch and restore the power while the footswitch is pressed.
3. After the boot process is complete, the device starts to flash its LEDs. Press the footswitch according to the number of the desired channel (e.g. twice for channel 2). The *Trash Panda Quad* acknowledges this by emitting short flashing pulses corresponding to the number of the channel.
4. Once the desired channel is set, press the footswitch and hold it down until all LEDs stop flashing.
5. Disconnect the supply voltage. The next time the *Trash Panda Quad* is started, it reacts to the selected MIDI channel.

To put the *Trash Panda Quad* in omni mode skip step 3.

To change the MIDI channel via MIDI command, the following two commands are sent directly one after the other.

CC	#	Function
119	0-16	Set MIDI channel 1-16, 0 for Omni
119	127	Saving the MIDI channel. The Device restarts.