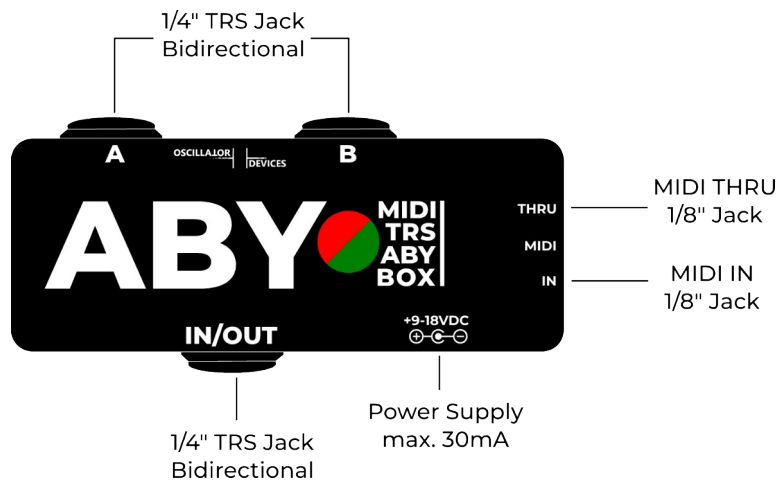
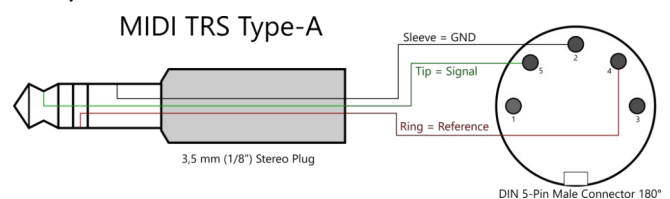


The **Oscillator Devices ABY** is a MIDI controlled, passive ABY box. It can switch between IN/OUT → A, IN/OUT → B and IN/OUT → A+B. A, B and IN/OUT are TRS and bidirectional. The MIDI commands of the **ABY** are configurable, so it can share MIDI channels with other devices.



## Connections

- **IN/OUT:** A 1/4" stereo (TRS) connection. It can either be connected to A, B or both.
- **A/B:** A 1/4" stereo (TRS) connection. Each can either be connected to IN/OUT or disconnected.
- **+9-18VDC:** Power Supply. 9-18VDC, Center Negative, Boss Style with a maximum current draw of 30mA.
- **MIDI In:** 3.5mm (1/8") MIDI Input according to MIDI Standard **MIDI TRS Type-A**.
- **MIDI Thru:** 3.5mm (1/8") , latency free MIDI Thru according to MIDI Standard **MIDI TRS Type-A**



## Button

On top of the **ABY** is an illuminated button. It can be used to switch between A, B, A+B and Disconnected for setup and testing. The button lights up:

- **Green** when A is connected to IN/OUT
- **Red** when B is connected to IN/OUT
- **Orange** when both A and B are connected to IN/OUT

## Presets

The **ABY** can save the current switch position to one of 128 presets to be recalled with a MIDI PC command. Press and hold the button until it starts flashing. Now send a PC command and the setting is saved and can be recalled with that exact PC command.

## Setting the MIDI Channel

The **ABY** ships in omni mode (i.e. it responds to any channel). To change the MIDI channel, proceed as follows:

1. Disconnect the device from the power supply
2. Press and hold the Button and restore the power while the button is pressed.
3. After the boot process is complete, the button starts to flash. Press the button according to the number of the desired channel (e.g. twice for channel 2). The **ABY** acknowledges this by emitting short flashing pulses corresponding to the number of the channel.
4. Once the desired channel is set, press and hold the button until it stops flashing.
5. Disconnect the supply voltage. The next time the **ABY** is started, it reacts to the selected MIDI channel.

To put the **ABY** in omni mode skip step 3.

## MIDI Commands

The following MIDI command sets all switches in the **ABY** to a certain state.

CC	#	Function
CC 20	0	IN/OUT disconnected from both A and B
	1	IN/OUT only connected to A
	2	IN/OUT only connected to B
	3	IN/OUT connected to both A and B

The following command skips through the states of the **ABY**:

CC	#	Function
CC 21	0	A → B → A+B → Disconnected
	1	A → B → A+B
	2	A → B

The following command controls the switch IN/OUT to A:

CC	#	Function
CC 22	0	Connect A to IN/OUT
	1	Disconnect A from IN/OUT
	2	Toggle A

The following command controls the switch IN/OUT to B:

CC	#	Function
CC 23	0	Connect B to IN/OUT
	1	Disconnect B from IN/OUT
	2	Toggle B

All the CC numbers of these commands can be changed, so the ABY can share a MIDI channel. CC commands can only be set to CC 10 ... CC 113.

## MIDI Commands for Setup

The following commands are used for setup and configuration. Every command consists of four CC messages. These functions are available through the WebMIDI interface at <https://oscillatordevices.com/webmidi>

Setting the MIDI Channel:

CC 119 <MIDI Ch>    CC 09 18    CC 09 52    CC 09 00

Setting the CC commands (Default 20, Only 10...113).

CC 118 <MIDI CC>    CC 09 18    CC 09 52    CC 09 03

Saving a preset

CC 116 <Preset Nr.>    CC 09 18    CC 09 52    CC 09 01

Deleting a preset

CC 117 <Preset Nr.>    CC 09 18    CC 09 52    CC 09 02