



# **AMI - Dual TRS midi switch**

*universal switch*

## **User manual**

rev. 2.0 [11.2022]

### **Important safety instructions:**

- Read these instructions and follow them.
- Prevent this device against moisture or spilling liquid inside.
- Clean only with dry cloth.
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus producing a lot of heat.
- Protect the power supply cord from being walked on or pinched.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this device during lightning storms or when unused for long periods of time.
- Do not open the device.



### **DO NOT PLACE THIS PRODUCT INTO THE WASTE CONTAINER !**

This device is marked with a cross-lined waste container symbol according to 2002/96/EU Directive on Waste Electric and Electronic Equipment. Such marking informs that after usage equipment can not be trashed together with other household waste. An user obligation is to return wasted equipment to a party collecting wasted electric and electronic equipment. Parties collecting such equipment organise a system, including local collection points, shops and other units, allowing to return such equipment. This Directive assures an user free of charge utilisation of such delivered equipment. This device is made of materials which can be recycled or utilised after becoming out of use. Proper handling of wasted electric and electronic equipment reduces demand for raw materials and contributes in avoiding harmful consequences for the environment and health of people caused by dangerous components and not proper storing and utilising of such equipment.

## Declaration of Conformity

EM Custom S.C., ul. Skłodowskiej-Curie 79B/6, 41-103 Siemianowice Śl., Poland,  
declare under sole responsibility, that the following products:

### **MIDI switcher for guitar amplifiers AMI-Mxx, AMI-U, AMI-C, AMI-B, AMI-P**

conforms with requirements of the EC Council Directives:

2014/30/EU Electromagnetic Compatibility,  
2014/35/EU Low Voltage Directive,

and holds the CE mark. Above named product conforms with the following standards:

EN 301 489-1 V2.1.1 (2017-02)  
EN 301 489-17 V3.1.1 (2017-07)  
EN 300 328 V2.1.1  
EN 62368-1:2014  
EN 62368-1:2014/Cor.1:2015

Marek Kosiński /owner of the EM Custom S.C./



June 18, 2020

### **FCC statement**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

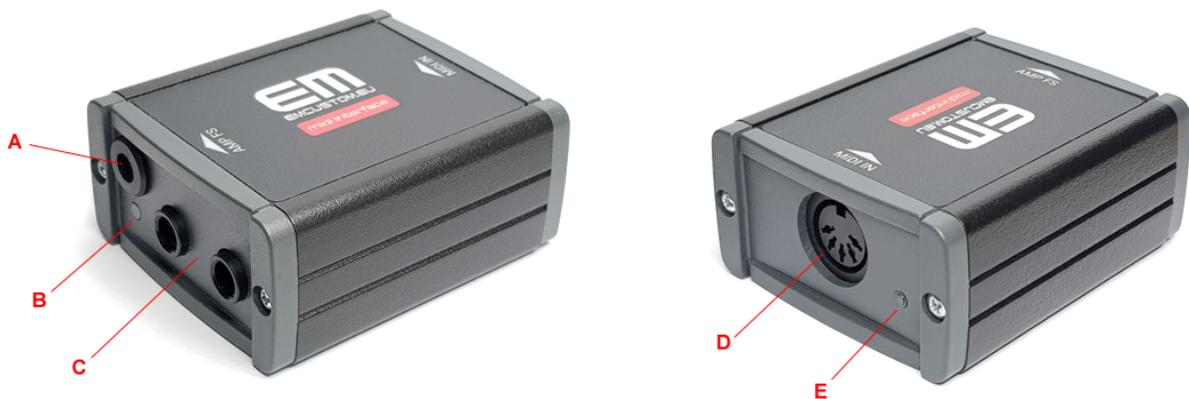
This device contains FCC ID: XPNINAB1 IC: 8595A-NINAB1

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## 1. Description.

The DualTRS midi switch has 2 TRS connectors and 4 independent switches that you can use to control your guitar amps or other devices with midi commands like Program Change and Control Change.

Switches can be set as latch or momentary. ( default - 4 x latch )



- A** Power socket 5-15V DC, Positive outside
- B** Midi CH. SW. – Midi channel settings switch ( learn mode )
- C** AMP FS – connect it into the TS/TRS footswitch socket of the amp or other devices
- D** Midi IN – Midi socket
- E** RX – Received midi message indicator

## 2. Using the switcher.

### 2.1. Starting up the switcher

- Power off the amp
- Connect the switcher **C** into the amp control socket using TRS cables
- Connect the switcher **D** to the midi controller using standard midi cable
- Set a valid midi channel **B** (chapter 2.3)
- Power on your amp

After powering up the switcher, RX LED **E** is blinking white for a one second and then goes off.

## 2.2. Working with midi messages.

The midi switcher supports 2 types of MIDI messages:

- Program Change ( PC )
- Control Change ( CC )

According to the MIDI standard, all midi parameters have a range from 0 to 127

Program Change messages are used to recall presets

Control Change messages are used to switch functions independently from presets.

- Send a valid midi message to switch your amp.

Refer to the table of default settings (*chapter 4*).

Midi controller should send supported PC or CC including a valid MIDI channel.

MIDI channel sent from the midi controller to the switcher must correspond to the MIDI channel set in the switcher.

**Note:** Some manufacturers use the range of 1 – 128. In this case, all of listed below values should be increased by 1.

**Example:** The controller sends midi messages in the range of 1 – 128.

If you want to switch the switcher by PC 0 you should send PC 1 from the midi controller.

## 2.3. MIDI channel settings.

Default MIDI channel is 1, but it is possible to change it.

- Press and hold **B** switch until the LED starts blinking.
- The switcher is in channel **learn mode**.
- Send any midi message ( PC or CC ) with a new midi channel set.
- The switcher will remember the midi channel.

**Note: Midi channel number 16 is the OMNI channel**

## 2.4. Supported modes

The switcher is factory configured as 4 x Latch.

Supported modes of the switcher.

4 x LATCH ( normally open )

4 x MOMENTARY

3 x MOMENTARY and 1 x LATCH

2 x MOMENTARY and 2 x LATCH

It is possible to change the active mode using AMIcontrol app

## 2.5. LED actions

Color	Description
white	fast flashing for 1 second when Power on
blue	flashing when the switcher is connected to the AMIcontrol app via BT
green	flashing once when the valid midi message is received
red	flashing once when the received midi message is out of range
orange	flashing when the midi channel setting mode is active

## 3. Specification.

<b>Power supply:</b>	5-15 V DC, 14mA
<b>Output circuit:</b>	4 x Solid State Relay
<b>On-state current:</b>	400 mA (max)
<b>On-state resistance:</b>	2 $\Omega$ (max)
<b>Off-state output terminal voltage:</b>	60V (max)
<b>Dimensions:</b>	60 x 70 x 31 mm
<b>Weight:</b>	96 g

## 4. AMIcontrol app.

The AMIcontrol app allows you to customize the AMI switcher via bluetooth using a smartphone. You can change factory settings of PC messages, CC messages and midi channel number according to your own preferences with this app.

This can make it easier to control your midi system.

You can also diagnose some problems in your midi system with a midi monitor feature.

Finally you can directly control the amplifier via bluetooth using this app and the AMI switcher.

You can download the app from:

- Google Play

<https://play.google.com/store/apps/details?id=eu.emcustom.amicontrol>

- App Store

<https://apps.apple.com/app/id1605842395>

## 5. Warranty.

EM Custom provides a warranty to the purchaser that this product will provide for a period of 2 years from the date of purchase.

Within the warranty period, the manufacturer will replace your faulty AMI at no charge (except shipping & handling fees in some cases), provided that the product:

- Has been used for the intended purpose and in the manner described in this manual.
- Has not been connected to an unsuitable power source.
- Has not been subjected to misuse or neglect.
- Has not been modified or repaired.
- Has not been damaged further by mechanical shock or atmospheric discharges.

Legal rights are not affected by this warranty.

## 6. Midi implementation.

Factory settings as below:

PROGRAM CHANGE switching

RING 2	TIP 2	RING 1	TIP 1	PC
○	○	○	○	0
○	○	○	●	1
○	○	●	○	2
○	○	●	●	3
○	●	○	○	4
○	●	○	●	5
○	●	●	○	6
○	●	●	●	7
●	○	○	○	8
●	○	○	●	9
●	○	●	○	10
●	○	●	●	11
●	●	○	○	12
●	●	○	●	13
●	●	●	○	14
●	●	●	●	15

## CONTROL CHANGE switching

Function	CC number	CC value	
		0..62	64..127
TIP 1	80	○	●
RING 1	81	○	●
TIP 2	82	○	●
RING 2	83	○	●

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