

# Pedalboard platform for placing any 3 devices of the AMT Bricks series.

# **UBR PB-3**



#### **OWNER'S MANUAL**

ENG (Rev. B)



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## Introduction

AMT Electronics company presents to your attention a new long-awaited product — **AMT UBR PB-3** (hereinafter, for short — **PB-3**).

#### **Abbreviations**

**UBR** — «United Bricks of Russia» **PB-3** — «PedalBoard for three

**PB-3** is a pedalboard platform for placing any 3 devices of the **AMT Bricks** series. Additionally, two AMT TC-3M (Tube Cake 3W) guitar amplifiers can also be installed into the pedalboard, which allows you to connect guitar cabinets directly to the **PB-3**.



The minimum load impedance of the amplifier is 8 Ohm.

The switching scheme of the pedalboard implies the joint operation of various devices of the **AMT Bricks** series. At the same time, to increase the number of such devices used together, several (two or more) **PB-3** pedalboards can be combined with each other.



Fig. 1 — The PB-3 pedalboard (without installed AMT TC-3M)

#### **Commutation features**

As was said above, various devices of the AMT Bricks series can be used with the PB-3 pedalboard. Since AMT Bricks devices have different functionality, pre-switching of the pedalboard circuits for the selected architecture is required.

Pre-switching is carried out using DIP switches (which are located under the seats of AMT Bricks devices) and TRS(3.5 mm)-TRS(3.5 mm) cables (audio/aux cable of the "stereo mini-jack" type).



In the pedalboard circuit, such TRS(3.5 mm) — TRS(3.5 mm) cables are not used for transmitting audio signals, but serve exclusively for the interdependent control of devices.

## Top view: connectors, controls, and indication

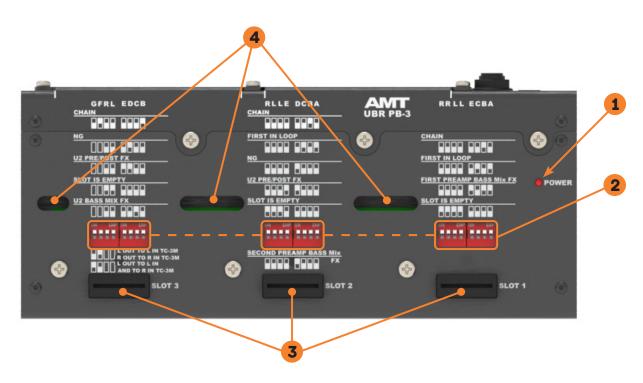


Fig. 2 — PB-3 pedalboard (top view)

- 1. POWER LED power indicator;
- 2. DIP switches for selecting a variant of internal commutation of the pedalboard;
- **3. Slot 1/ Slot 2/ Slot 3-connectors** for placing devices of the AMT Bricks series. Seats (positions) 1, 2, 3, respectively;
- **4. Technological slots** for laying control cables (TRS-TRS 3.5 mm).

#### **DIP** switches

AMT Bricks devices as part of a pedalboard are not always a sequential chain of devices connected according to the principle «Output of one — Input of another».

There are also special cases of commutation of the PB-3 (for example, when using AMT NG-1 and AMT Pangaea U2 devices with [Pre/Post FX] firmware) when the audio signal from the PB-3 input does not come at the device located in the first position (Slot 1), but at the device in the second (Slot 2) or third (Slot 3) position. In this case, the signal to the input of the "first" device (Slot 1) will come via the send/return loop.

Another example is when, in the case of using the AMT Pangaea U2 device with the [BassMix FX] firmware, the signal from the pedalboard input must be sent directly to the inputs of two preamps at once in positions 1 and 2 (Slot 1 and Slot 2).

Also, sometimes there is a need to send the signal, bypassing the seat in which the device is not installed (for example, when only one or two AMT Bricks devices are installed in the PB-3 pedalboard).

It is to provide this kind of various types of commutation that DIP switches are needed — these are slide switches for controlling the routing of the signal of the inputs and outputs of devices in the pedalboard. They are located on the seats, access to which is closed by the lower panels of the AMT Bricks devices (after installing them on the PB-3 pedalboard).

#### **Description of the DIP switches positions**

**CHAIN** is a type of seat switching, in which a signal comes directly from the input of the PB-3 pedalboard to the input of the Slot 1 device. Applicable to the other two devices in Slot 2 and Slot 3 — the signal is routed according to the rule "The output of the device in the previous position is sent to the input of the device in the next position"



The CHAIN can be set on any of the seats (slots) of the pedalboard.

**FIRST IN LOOP** — is a variant of seat (slot) commutation in which a signal from the send/return loop comes to the input of the device (for example, when an AMT NG-1 noise suppressor or an AMT Pangaea U2 device with [Pre/Post FX] firmware is installed on the pedalboard).



The FIRST IN LOOP state of the switches can only be applied to seats 1 and 2 (slot 1 and slot 2).

**FIRST PREAMP BASS Mix FX** is a variant of seat 1 (slot 1) commutation (together with the DIP switches of seats 2 and 3), in which the signal from the input of the pedalboard comes to the input of the preamp located at this place, and its output goes to the left input of the AMT Pangaea U2 device with the [BassMix FX] firmware located at the seat 3.



The FIRST PREAMP BASS Mix FX state of the switches can only be applied to seat 1 (slot1).



**SLOT IS EMPTY** — this state of the switches must be used if the seat is not occupied.



The SLOT IS EMPTY state of switches can be set on any of the seats (slots) of the pedalboard.

**NG** — this position of the switches is used if the AMT NG-1 noise suppressor is installed on the seat.



The NC state of the switches can only be applied to seats 2 and 3 (slot 2 and slot 3).

**U2 PRE/POST FX** — this position of the switches is used when the AMT Pangaea U2 device with the [Pre/Post FX] firmware is installed on the seat.



The U2 PRE/POST FX state of the switches can only be applied to seats 2 and 3.

**SECOND PREAMP BassMix FX** is a variant of seat 2 (slot 2) commutation (together with the DIP switches of seats 1 and 3), in which the signal from the input of the pedalboard comes to the input of the preamp located at this place, and its output goes to the right input of the AMT Pangaea U2 device with the [BassMix FX] firmware located at the seat 3.



The SECOND PREAMP BASS Mix FX state of the switches can only be applied to seat 2.

**U2 BassMix FX** — this position of the switches is used if the AMT Pangaea U2 device with the [BassMix FX] firmware is installed on the seat.



The U2 BassMix FX state of the switches can only be applied to seat 3.

**DIP switches G and F of the seat 3 (slot 3)** — are used to supply a signal to the inputs of AMT TC-3M guitar amplifiers pre-installed in the pedalboard.



If the amplifiers are not installed, the position of these switches does not matter.

**LOUT TO LIN TC-3M / ROUT TO RIN TC-3M** — this switch position is used when two AMT TC-3M amplifiers are installed in the pedalboard, and a signal is sent to their inputs from an AMT Bricks device with a stereo output (for example, AMT Pangaea U2 with the corresponding firmware or AMT Pangaea VC-16).

**LOUT TO LIN TC-3M AND TO RIN TC-3M** — the position of the switches that is used when two AMT TC-3M amplifiers are installed in the pedalboard, and a signal is sent to their inputs from an AMT Bricks device with a mono output (for example, AMT Pangaea U2 with [Pre/Post FX] firmware).

## Rear view: connectors, controls and indicators



Fig. 3 — View of the rear panel of the PB-3 pedalboard without installed AMT TC-3M guitar amplifiers



Fig. 4 — View of the rear panel of the PB-3 pedalboard with an installed pair of AMT TC-3M guitar amplifiers

- 1. DC 12V ower connector (Center pin Minus)
- 2. INPUT he input connector of the pedalboard (TRS 6.3 mm).

#### Options for using this connector:

- Guitar (mono signal via TS TS instrument cable);
- Stereo signal (via TRS cable) from another AMT UBR PB-3 pedalboard;
- Stereo signal (via TRS cable) of other external devices.
- 3. AMT TC-3M Guitar Amplifier (Right channel)
- 4. AMT TC-3M Guitar Amplifier (Left channel)



AMT TC-3M amplifiers have their own power inputs, and it is recommended to supply them with **separate power supplies** in order to avoid:

- overload of the pedalboard power supply;
- possible mutual influence (especially when using high gain preamps).



#### **Technical specifications**

#### INPUT — input

Impedance 1 MOhm Nominal sensitivity -10 dBm

#### **Power**

Voltage: DC 12V

Current consumption (without installed devices): Approx. ~ 30mA

Dimension (HxWxD): 40mm x 225mm x 100mm

Weight: 350 g (without package)

Polarity of the power adapter:



#### The complete set includes:

- Pedalboard AMT UBR PB-31 pc.
- Packing box 1 pc.
- Warranty card 1 pc.

ATTENTION! A power supply isn't included in the set.



Note: The power of the required power supply is determined by the total current consumption of all devices installed on the pedalboard. Recommended Power adapter — **AMT DC 12V 1.25 A** 



WARNING! Inside the device there are no parts that are user-serviceable. Repairs to the device may only be performed by qualified personnel. WARNING! Do not expose the preamp to rain, moisture, dripping or splashing water. Do not place near objects filled with liquids, such as vases, etc.

#### Connecting the pedalboard to a power adapter

The connection is made only after all the audio connections!

*It is not allowed* to install and remove AMT Bricks series devices when the pedalboard is powered on.

**First, insert the low-voltage connector of the power adapter** into the corresponding socket of the pedalboard, and then plug the adapter into the power outlet.

## Turning off the power of the pedalboard

To turn off the pedalboard, *first, disconnect the AC adapter from the AC power outlet,* and then disconnect its low-voltage connector from the socket on the rear panel of the pedalboard.

# Storage conditions and operating requirements of the device

To prevent damage during storage and transport use the original packaging.

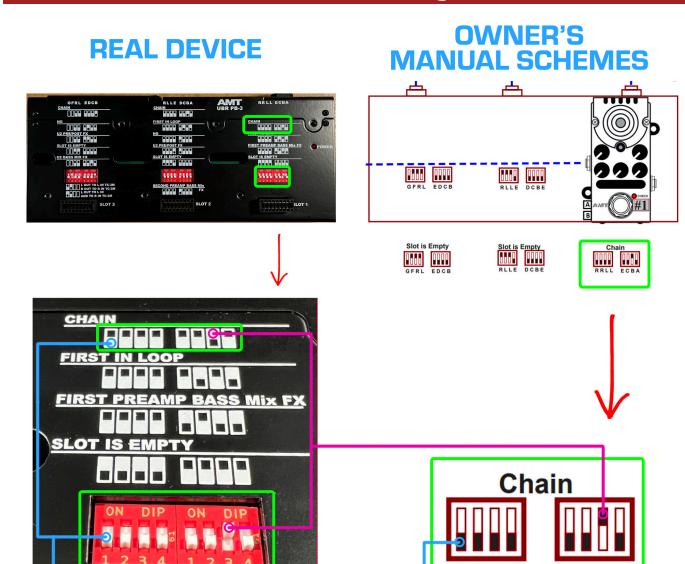
Do not let children play with the packaging.

Please dispose of all packaging materials in an environmentally friendly way.

To avoid overheating of the device is provided with sufficient ventilation, do not cover it, and do not place near heating radiators etc.

Operation near powerful radio transmitters and high-frequency sources can lead to a marked deterioration in sound quality. In this case, increase the distance between the sensor and the transmitter and use shielded cables for all connections.

## **DIP switches reading rules**





## **Appendix 1**

## Possible commutation schemes for AMT Bricks series devices on the AMT UBR PB-3 pedalboard

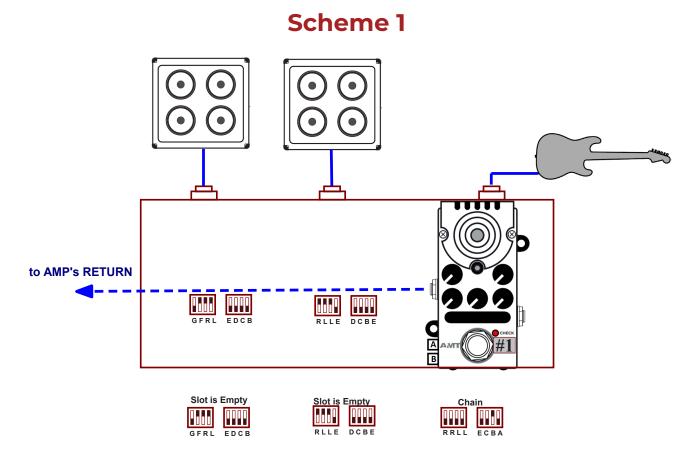


Fig. 1 — Scheme of a pedalboard with a single AMT Bricks device on board.

As can be seen from Fig. 1, the pedalboard has:

- One AMT Bricks preamp;
- Two AMT TC-3M guitar amplifiers.

The signal from the preamp output can be sent via the TS — TS instrument cable to the Return input of an external guitar amplifier (if the preamp mode is selected on the AMT Bricks preamp) or to the Input of the cleam channel of the guitar amplifier (if the drive mode is selected on the preamp).

If there is no cable connected to the output of the preamp on the pedalboard, then the output signal of the preamp goes to the inputs of the built-in AMT TC-3M amplifiers, and then, from the outputs of the amplifiers, the signal goes to the guitar cabinets



It is recommended to use «speaker» TS — TS cables to connect the cabinets, but due to the fact that the power of the amplifiers is small, it is allowed to use conventional instrument cables.



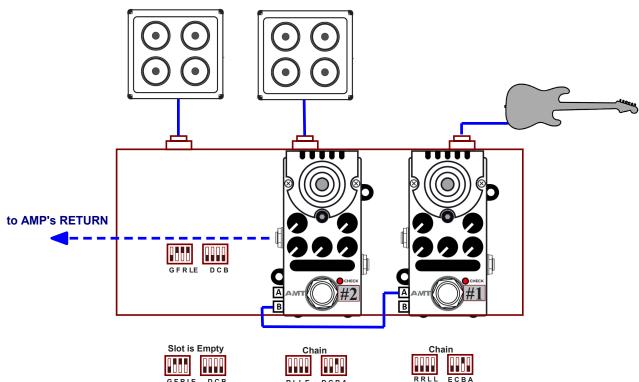


Fig. 2 — Scheme of a pedalboard with two AMT Bricks preamps.

According to the scheme (Fig. 2), the pedalboard is equipped with:

- Two AMT Bricks preamps;
- Two AMT TC-3M guitar amplifiers.

The preamps are connected to each other with a TRS(3.5 mm) — TRS(3.5 mm) control cable.

When the pedalboard is powered on, both preamps are in the ByPass state.

When working with a pedalboard, clicking on the footswitch of any of the preamps turns it on. At the same time, another preamp switches to ByPass mode.

The signal from the output of preamp 2 can be sent via the TS-TS instrument cable to the Return input of an external guitar amplifier (if the preamp mode is selected on the AMT Bricks preamps) or to the input of the clean channel of the guitar amplifier (if the drive mode is selected on the preamps).

If there is no cable connected to the Output of the preamp on the pedalboard, then the output signal of the preamp goes to the inputs of the built-in AMT TC-3M amplifiers, and then, from the outputs of the amplifiers, the signal goes to the guitar cabinets



t is recommended to use «speaker» TS — TS cables to connect the cabinets, but due to the fact that the power of the amplifiers is small, it is allowed to use conventional instrument cables.

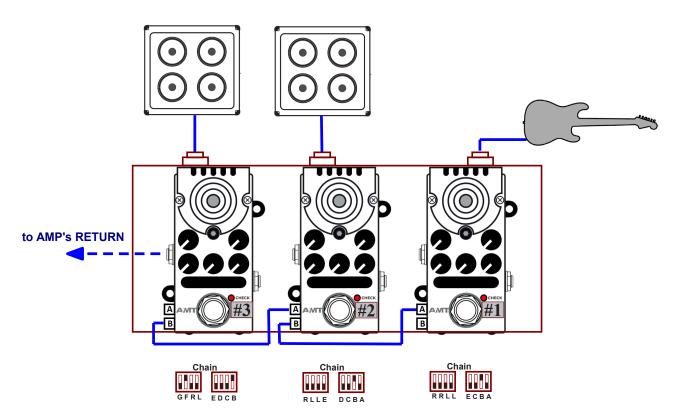


Fig. 3 — Scheme of a pedalboard with three AMT Bricks preamps.

In this scheme (Fig. 3), the pedalboard is equipped with:

- Three AMT Bricks preamps;
- Two AMT TC-3M guitar amplifiers.

The preamps are connected to each other with a TRS(3.5 mm) — TRS(3.5 mm) control cables.

When the pedalboard is powered on, all three preamps are in the ByPass state.

When working with a pedalboard, clicking on the footswitch of any of the preamps turns it on. At the same time, the other two preamps switch to ByPass mode.

The signal from the output of preamp 3 can be sent via the TS — TS instrument cable to the Return input of an external guitar amplifier (if the preamp mode is selected on the AMT Bricks preamps) or to the input of the clean channel of the guitar amplifier (if the drive mode is selected on the preamps).

If there is no cable connected to the Output of the preamp on the pedalboard, then the output signal of the preamp goes to the inputs of the built-in AMT TC-3M amplifiers, and then, from the outputs of the amplifiers, the signal goes to the guitar cabinets.



It is recommended to use «speaker» TS — TS cables to connect the cabinets, but due to the fact that the power of the amplifiers is small, it is allowed to use conventional instrument cables.



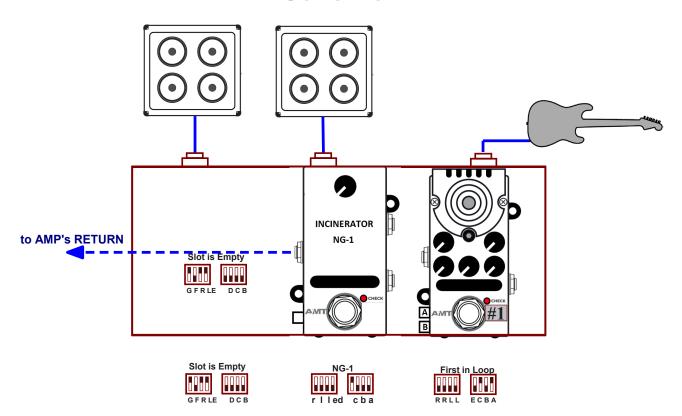


Fig. 4 — Scheme of a pedalboard with one AMT Bricks preamp and an NG-1 noise suppressor.

As can be seen from Fig. 4, the pedalboard has:

- One AMT Bricks preamp
- AMT NG-1 noise suppressor;
- Two AMT TC-3M guitar amplifiers.

The preamp is placed in the Send/Return loop of the NG-1 noise suppressor.

The preamp and noise suppressor are controlled independently by pressing on their footswitches.

The signal from the output of the NG-1 can be sent via the TS-TS instrument cable to the Return input of an external guitar amplifier (if the preamp mode is selected on the AMT Bricks preamp) or to the input of the clean channel of the guitar amplifier (if the drive mode is selected on the preamp).

If there is no cable connected to the Output of the NG-1 on the pedalboard, then the output signal of the NG-1 goes to the inputs of the built-in AMT TC-3M amplifiers, and then, from the outputs of the amplifiers, the signal goes to the guitar cabinets



It is recommended to use «speaker» TS — TS cables to connect the cabinets, but due to the fact that the power of the amplifiers is small, it is allowed to use conventional instrument cables.

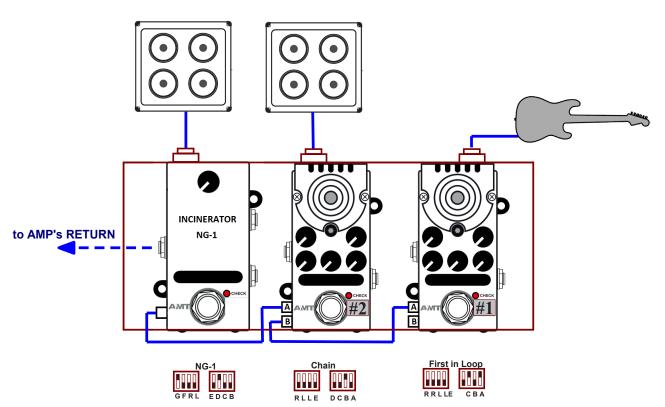


Fig. 5 — Scheme of a pedalboard with two AMT Bricks preamps and an NG-1 noise suppressor.

In this scheme, the pedalboard is equipped with:

- Two AMT Bricks preamps;
- AMT NG-1 noise suppressor;
- Two AMT TC-3M guitar amplifiers.

The devices are connected to each other with a TRS(3.5 mm) — TRS(3.5 mm) control cables.

When the pedalboard is powered on, the AMT Bricks preamps are in the ByPass state, and the AMT NG-1 noise suppressor is in the off state.

When working with a pedalboard, pressing the footswitch of some preamp turns it on (the AMT NG-1 also turns on).

When you click on the footswitch of another preamp, it turns on, and the previously enabled preamp switches to ByPass mode (at this point, AMT NG-1 also switches to ByPass mode). Thus, NG-1 «follows» one preamp.



f you want NG-1 to «follow» another preamp, just click on the enabled preamp, it will remain in operation, and NG-1 will switch to a different state.

The signal from the NG-I output can be sent via the TS-TS instrument cable to the Return input of an external guitar amplifier (if the preamp mode is selected on the AMT Bricks preamps) or to the input of the clean channel of the guitar amplifier (if the drive mode is selected on the preamps).



If there is no cable connected to the Output of the NG-1 on the pedalboard, then the output signal of the NG-1 goes to the inputs of the built-in AMT TC-3M amplifiers, and then, from the outputs of the amplifiers, the signal goes to the guitar cabinets



It is recommended to use «speaker» TS — TS cables to connect the cabinets, but due to the fact that the power of the amplifiers is small, it is allowed to use conventional instrument cables.



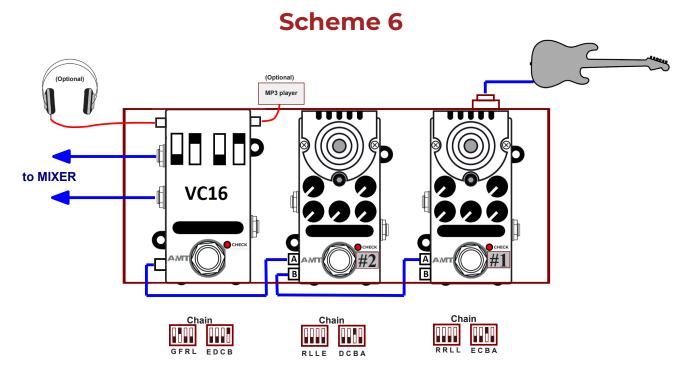


Fig. 6 — Scheme of a pedalboard with two AMT Bricks preamps and an AMT VC-16 CabSim.

In this scheme, the pedalboard is equipped with:

- Two AMT Bricks preamps;
- AMT VC-16 cabinet simulator.

The devices are connected to each other with a TRS(3.5 mm) — TRS(3.5 mm) control cables.

When the pedalboard is powered on, the AMT Bricks preamps are in the ByPass state, and SET A is selected on the VC-16.

When you click on the footswitch of a preamp, you turn it on, while SET B is turned on on the VC-16.

When you click on the footswitch of another preamp — it turns on, and the previously enabled preamp switches to ByPass mode (at the same time, SET A is turned on on the VC-16).

Thus, SET A of the VC-16 emulator cabinet is «assigned» to one preamp, and SET B is «assigned» to another. To change the order of «assignment - just click on the enabled preamp: it will remain in operation, and another SET will be selected on the VC-16.

The signals from the VC-16 outputs can be sent to the mixing console (sound card, etc.). You can use TS-TS instrument cables (if the mixer has non-balanced TS inputs) or TRS-XLR, TRS-TRS cables (if balanced inputs are used).

Also, in this scheme, you can use (optionally) headphones and an MP3 player/smartphone for training under the backing tracks.

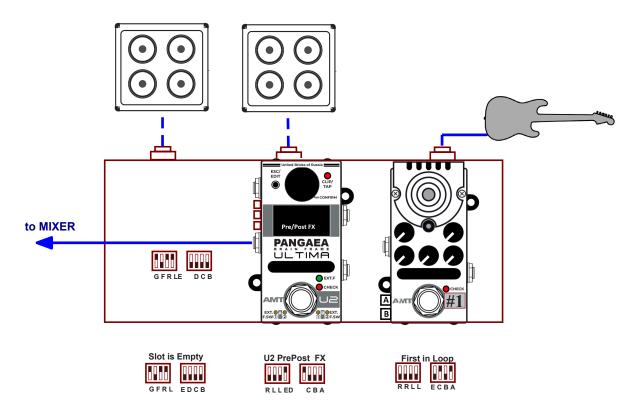


Fig. 7 — Scheme of a pedalboard with one AMT Bricks preamp and an AMT Pangaea U2

According to the scheme in Fig. 7, the pedalboard is equipped with:

- One AMT Bricks preamp;
- AMT Pangaea U2 (with [Pre/Post FX] firmware)
- Two AMT TC-3M quitar amplifiers.

Here, the guitar signal goes to the input IN L of the U2 device, where the signal is processed by the U2 PRE section, and from the output U2 OUT R goes to the input of the AMT Bricks preamp.

From the preamp output, the signal is sent to the IN R input of the U2 device and after processing by the U2 Post section, it goes to the U2 OUT L output.

Next, the signal from the U2 OUT L output can be sent to the mixing console (sound card, etc.).

You can use a TS-TS instrument cable (if the mixer has non-balanced TS inputs) or a TRS-XLR, TRS-TRS cable (if a balanced input is used).

In such a scheme, the output U2 OUT R cannot be used, since it is the output of the U2 PRE section and is not a fully formed signal.

Moreover, when the cable is connected to the U2 OUT R output, the internal connection U2 OUT R - Preamp IN in the pedalboard will break.

Cabinets can be used optionally, the cabinet simulation function in AMT U2 must be disabled.



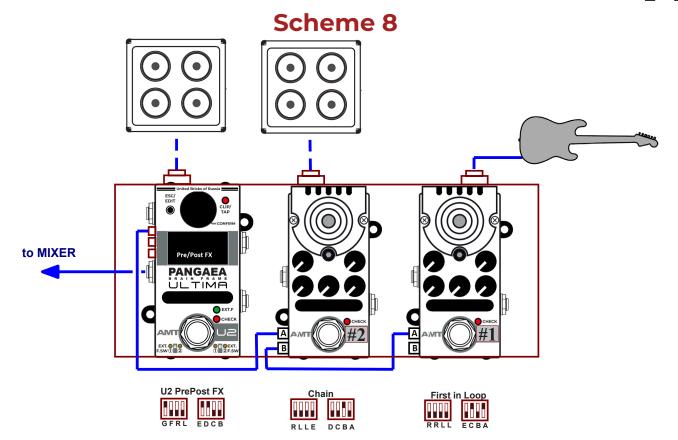


Fig. 8 — Scheme of a pedalboard with two AMT Bricks preamps and an AMT Pangaea U2 When implementing this scheme, the pedalboard is equipped with:

- Two AMT Bricks preamps;
- AMT Pangaea U2 (with [Pre/Post FX] firmware)
- Two AMT TC-3M guitar amplifiers.

Here, the guitar signal goes to the input IN L of the U2 device, where the signal is processed by the U2 PRE section, and from the output U2 OUT R goes to the input of the preamp 1 AMT Bricks.

From the output of preamp 2 (preamps 1 and 2 are connected in series), the signal enters the input IN R, and after processing by the U2 Post section, it goes to the output U2 OUT L. The devices are connected to each other with control cables TRS(3.5 mm) - TRS(3.5 mm). The 2Preamp mod mode is selected on the AMT U2 device.

In this scheme, preamp 1 is» assigned « to one U2 preset, and preamp 2 is assigned to another AMT U2 preset. The signal from the U2 OUT L output can be sent to the mixing console (sound card, etc.). You can use a TS-TS instrument cable (if the mixer does not have a balanced TS input) or a TRS-XLR, TRS-TRS cable (if a balanced input is used).

In such a scheme, the output U2 OUT R cannot be used, since it is the output of the U2 PRE section and is not a fully formed signal.

Moreover, when the cable is connected to the U2 OUT R output, the internal connection U2 OUT R - Preamp IN of the pedalboard will break.

Cabinets can be used optionally, the cabinet simulation function in AMT U2 must be disabled.

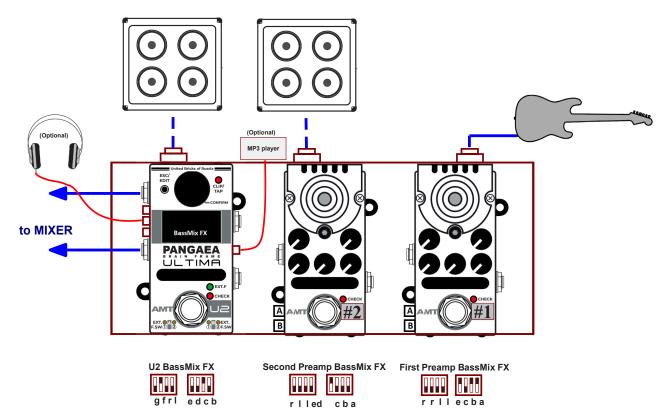


Fig. 9 — Scheme of a pedalboard with two AMT Bricks preamps and an AMT Pangaea U2

In this scheme, the pedalboard is equipped with:

- Two AMT Bricks preamps;
- AMT Pangaea U2 (with [BassMix FX] firmware)
- Two AMT TC-3M guitar amplifiers.

Here, the guitar signal is sent simultaneously to the IN L and IN R inputs of the U2 device. After processing, the signals are sent to the AMT U2 OUT L and OUT R outputs.

The signals from the U2 outputs can be sent to the mixing console (sound card, etc.). You can use TS - TS instrument cables (if the mixer has non-balanced TS inputs) or TRS-XLR, TRS - TRS cables (if balanced inputs are used).

Also, in this scheme, you can use (optionally) headphones and an MP3 player/smartphone for training under the backing tracks.

Cabinets can also be used optionally, the Cabinet Simulation function in AMT U2 must be disabled.



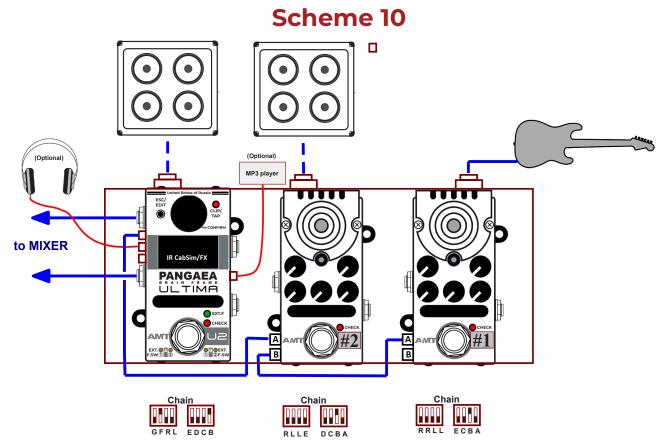


Fig. 10 — Scheme of a pedalboard with two AMT Bricks preamps and an AMT Pangaea U2

In this scheme, the pedalboard is equipped with:

- Two AMT Bricks preamps;
- AMT Pangaea U2 (with firmware [IR CabSim FX])
- Two AMT TC-3M guitar amplifiers.

The signals from the U2 outputs can be sent to the mixing console (sound card, etc.). You can use TS-TS instrument cables (if the mixer has non-balanced TS inputs) or TRS-XLR, TRS -TRS cables (if balanced inputs are used).

The devices are connected to each other with control cables TRS(3.5 mm) — TRS(3.5 mm).

The 2Preamp mod mode is selected on the AMT U2 device.

With such a scheme, preamp 1 is» assigned « to one U2 preset, and preamp 2 is assigned to another AMT U2 preset.

Also, in this scheme, you can use (optionally) headphones and an MP3 player/smartphone for training under the backing tracks.

Cabinets can also be used optionally, the Cabinet Simulation function in AMT U2 must be disabled.



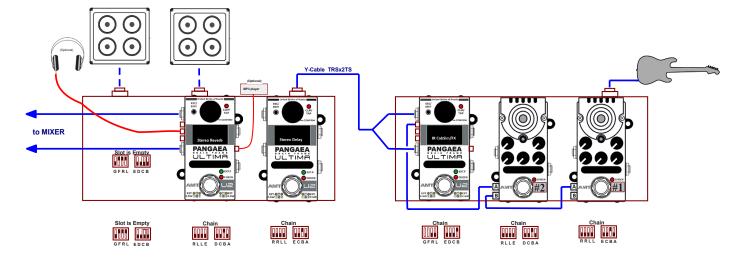


Fig. 11 — This scheme shows a possible serial connection of two pedalboards

#### Scheme 12

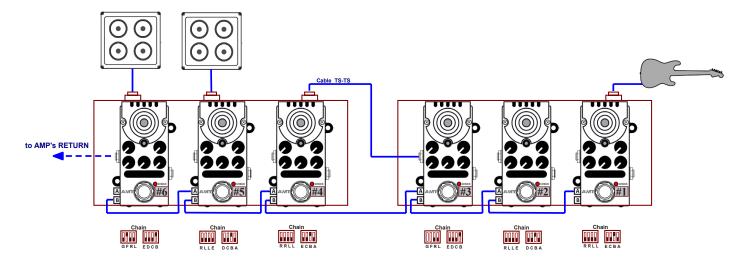


Fig. 12 — The scheme of the hardly demanded, but, nevertheless, quite realizable 6-channel preamp based on two pedalboards

## Scheme 13 - AMT UBR PB-3 Electrical circuit

