

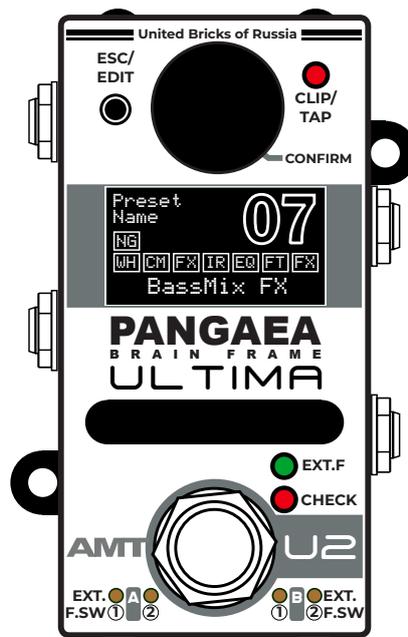
# AMT

The device/hardware platform for implementing various guitar effects depending on the firmware.

## Pangaea

# ULTIMA U2

## Brain Frame



## OWNER'S MANUAL

ENG (Rev. 03)

### Firmware «07 - BassMix FX»

For use with FW Ver. 1.01.02 or later:

[media.amt-sales.com/firmware-for-u-2/](http://media.amt-sales.com/firmware-for-u-2/)

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## Introduction

### DEAR FRIEND!

Thank you for purchasing (or continue of using) the **AMT Pangaea Ultima U-2** device!

This device is not just a pedal. In your hands is a powerful hardware platform on the basis of which various guitar/bass effects & many other functionalities can be implemented due to software (via different firmware).

The **Ultima U-2** is a part of the great «**AMT BRICKS**» series of devices, which includes different preamps, effect pedals, noise suppressors, IR cabinet simulators, device controllers, pedalboards, etc. All this gear has a common design concept «mini sneakers' size» and functional compatibility (including via special **BRICKS CONNECTOR** on the underside of each device). Almost all of **BRICKS** devices can be used both independently and being joint together.

This document is the Manual for the **Firmware «07 - BassMix FX»**, which was developed by AMT engineers especially under bass player requirements who would like to diversify the sound of their instrument with many interesting features and great built-in **AMT Ultima U-2 FX** effects.

The **Firmware «07 - BassMix FX»** includes **many features** that make the **Ultima U-2** capabilities to a new level of usability by bass players and make the device unique among competitors:

- **Full stereo input:** two independent input channels **IN L (MONO)** and **IN R**;
- Special option controlling the **mixing of both input signals**;
- **Two independent** main output **balanced** channels **OUT L** and **OUT R**;
- **OUT R** output has the global configuration option that allows it to work or as a «**Full Mix**» output with all preset' effects, or as «**Dry L+R**» mix of both input channels signals without any IR and effects;
- Stereo **AUX IN** and Headphones **PHONES** stereo output;
- Ability to connect up to 2 external **two-buttons footswitches**, **expression pedal** or external **MIDI controller** via special ports **MIDI IN/F.SW-A** and **EXP/F.SW-B**;
- **Special mode** of working and controlling **with two external AMT Bricks preamps** connected via mini TRS cables (mini stereo jack);
- **Totally programmable built-in footswitch** with two-actions options: short or long pushing.

### EFFECT SECTIONS

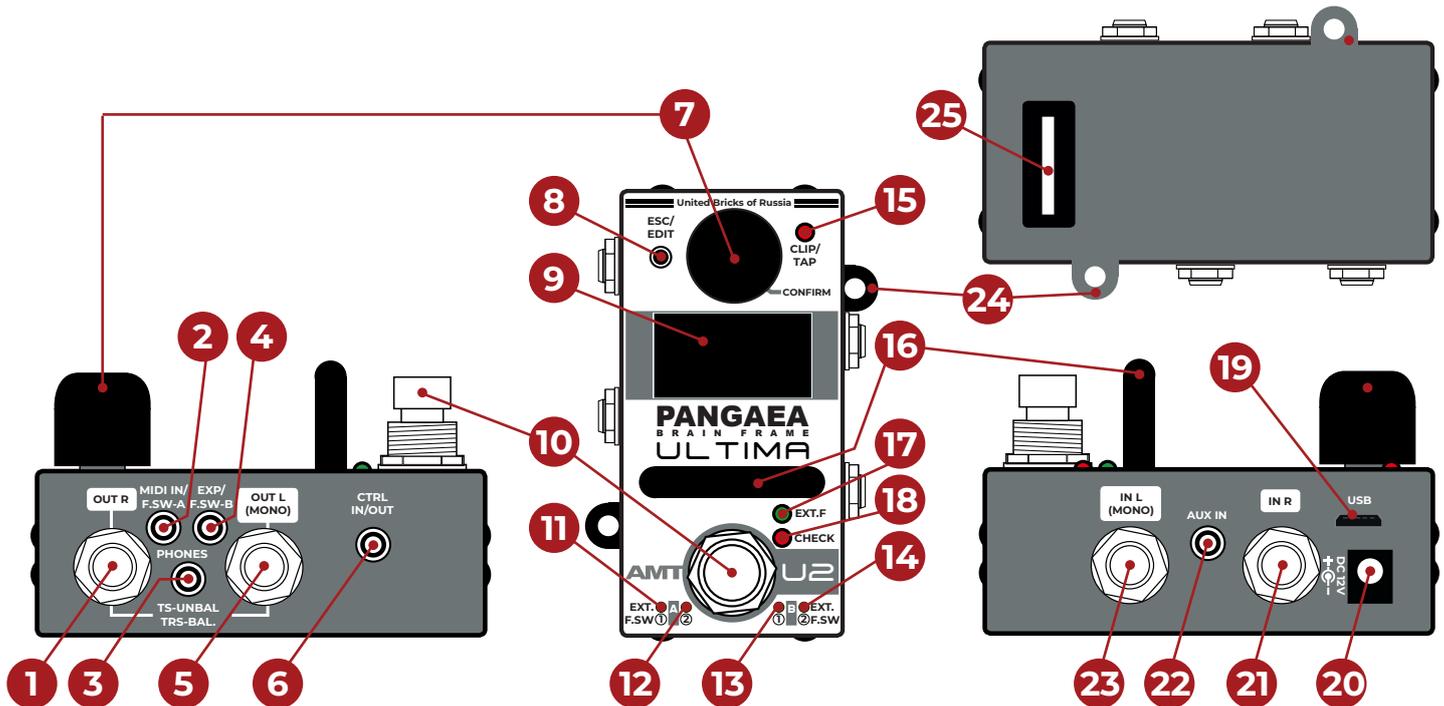


- **[NG]:** Easily customizable **Noise Gate** (global settings for the entire device as well as individual setting up for each preset);
- Powerful **[WH] Wah-Wah** section: use it as an **Auto-Wah** effect or connect an external expression pedal to the **Ultima U-2** and have the full-range Wah-Wah control by your foot;
- **[CM]: Compressor** (Pre/Post mode);
- **[FX]: Phaser / Chorus** (you can choose the effect you would like to use at the moment in each preset);
- **[IR]: Cab sim** section based on **IR** player with a WAV browser of guitar/bass cabinet impulse responses (with the **mixing level option** between the signal **processed by IR** and the **DRY sound** signal);
- **[EQ]:** Multiband highly quality graphical **Parametric EQ**;
- **[FT]: High pass & Low pass** filters with a **Presence effect**;
- **[FX]:** Multi-type **Delay** (with connectable Early Reflection's settings if needed) / **Reverb** (you can choose the effect you would like to use at the moment in each preset) with a controllable option to enable/disable «tails»;
- **Tuner** (double short push on the ENCODER);
- **Metronome** (long single push on the ENCODER >> Metronome).

We hope the functionality of this Firmware  
and using the AMT Pangaea Ultima U-2 device  
will give you real pleasure!

Best regards,  
AMT Team

## Device appearance



**1. OUT R:** TRS balanced one output connector of the device's RIGHT channel. With a TS cable's connector, it can be used as an unbalanced one output. The output level can be adjusted from +4 dBV to zero so it can be used with both line and microphone inputs.

**2. MIDI IN/F. SW-A:** TRS stereo mini jack 3.5 mm multi-function connector is for connecting the MIDI OUT from an external device or two-button footswitch.

**3. PHONES:** Headphones stereo mini jack 3.5 mm. It receives sound from the **OUT R (1)** and **OUT L (MONO) (5)** output channels + a sound applied to the **AUX IN (22)** input.

**4. EXP/F. SW-B:** TRS stereo mini jack 3.5 mm multi-function connector is for connecting an expression pedal or two-button footswitch.

**5. OUT L (MONO):** TRS balanced one output connector of the device's LEFT channel. With a TS cable's connector, it can be used as an unbalanced one output. The output level can be adjusted from +4 dBV to zero so it can be used with both line and microphone inputs.

**6. CTRL IN/OUT:** TRS mini stereo jack 3.5 mm external control connector (input/output) for connecting **AMT Bricks preamps**.

**7. ENCODER:** Main control element used for menu navigation and setting parameters.

**8. ESC/EDIT:** Button for entering the preset editing mode and exiting [also from other device's modes].

**9. OLED:** Main display.

**10. FOOTSWITCH BUTTON:** Could works in *two different modes simultaneously – short or long-pressing*. It can perform various functions depending on the selected functionality of the U2 device and its settings. For example, it can turn on effects, switch presets, or going in **TUNER** mode.

**11/12/13/14 – EXT. F. SW A1/A2/B1/B2 LEDs:** Indicators the status of the contacts of external footswitches connected to **MIDI IN/F. SW-A (2)** and **EXP/F. SW-B (4)** connectors. LEDs «A» are responsible for the TIP contacts, LEDs «B» – for the SLEEVE contacts.

**15. CLIP/TAP:** LED indicates different states depending on the device's functionality. For example, the **DELAY** effect makes it flashes according to the time set for delay or modulation. Also, this LED indicates the excess of the allowed input signal level.

**16. PROTECTIVE ARC.**

**17. EXT. F:** LED is used when the U2 is working as a part of the **AMT Pedalboard** system.

**18. CHECK:** LED indicating the effect's activation. Depending on the device's functionality, this LED may also display other device states.

**19. USB:** Mini USB port for connecting the device to your computer by a cable. It allows you to update the device Firmware, download IR files, copy the device presets to/from the computer.

**20. DC 12V:** Connector for the power supply (voltage DC 12V, min. 300mA, central contact – negative) **+⊖**

**21. IN R:** TS unbalanced audio input of the RIGHT device's channel. *If you're connecting to the U-2 device with only one mono audio signal, please use the **IN L (MONO) (23)** input instead of this **IN R (21)**.*

**22. AUX IN:** TRS mini stereo jack 3.5 mm input for connecting an additional audio signal (the backing track for the practice or as a personal monitoring system). *The signal from the AUX IN input goes only to the PHONES output and does not go to the main outputs OUT L, OUT R.*

**23. IN L (MONO):** TS unbalanced audio input of the LEFT device's channel. *If you're connecting to the U-2 device with only one mono audio signal, please use this one input instead of the **IN R (21)**.*

**24. PETALS:** Technological elements with holes for mounting the device on your pedalboard.

**25. BRICKS CONNECTOR:** Interface connector for the device operation as part of the **AMT Bricks Pedalboard**.

## Structure of the main display's screen

### Preset Name:

The name of the currently selected preset.

### Preset's Effects:

All effect blocks available for the current preset. **Blank field** means the effect block is not activated. **Filled** means the effects block was applied to the current preset and saved.



### Firmware Type:

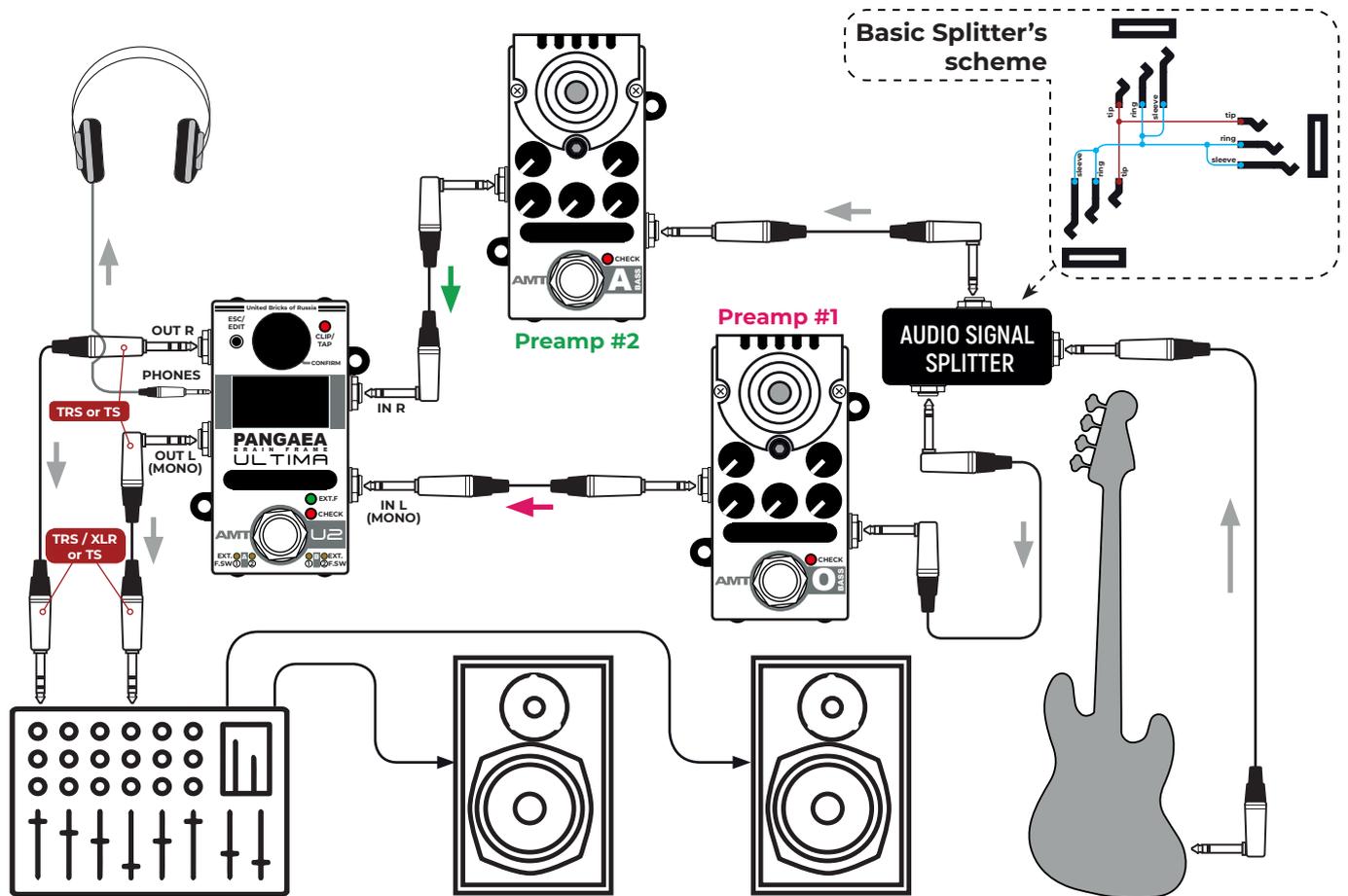
The name of the installed firmware.

### Preset Number:

Currently selected preset number. **Blank number** means the preset is empty. All effect blocks of an empty preset are disabled.

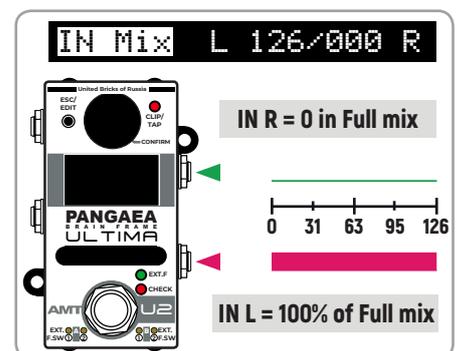
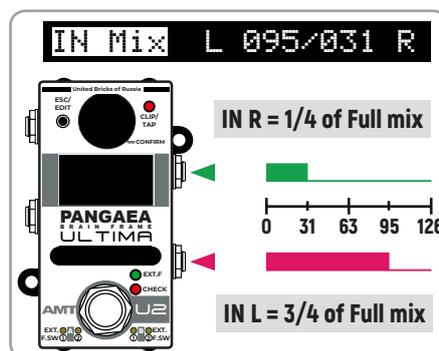
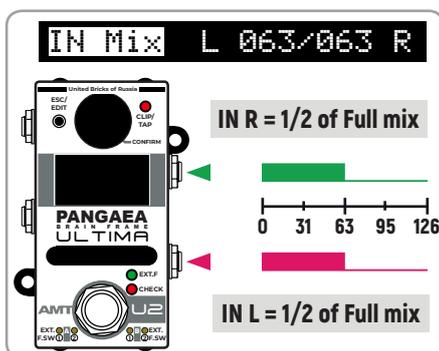
**Filled number** means the preset was modified and saved. **Blinking number** means the preset is selected but is not applied: press **Encoder (7)** to confirm or **ESC/EDIT (8)** to leave this mode.

## Connections & mixing



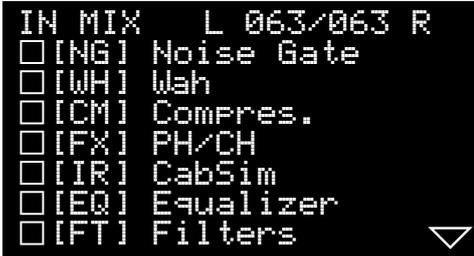
The main feature of the Firmware «07 - BassMix FX» is the possibility to connect to Ultima U-2 up to two different external preamps (with an already activated preamp channel on each of them). The Ultima device gives you full access to mixing both signals goes from **IN R (21)** and **IN L (MONO) (23)** inputs.

You can easily mix two input signals simultaneously as you wish. There is a special parameter (**IN Mix**) inside of each preset's menu. Settings **(L 063/063 R)** of this parameter allow you to control by the **ENCODER (7)** a value of cross mixing of signals. Check these some visual diagrams as an example for more deeply understanding how the sound mixing is going inside of the Ultima U-2:



## Preset's menu

To enter the Preset's menu just a short single push the **ESC/EDIT (8)** button.

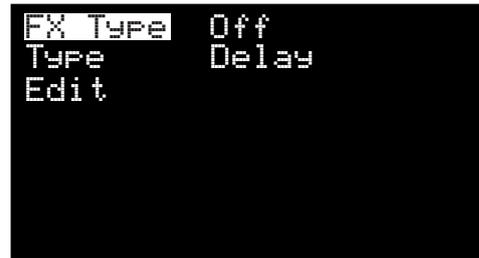


Rotating the **ENCODER (7)**, you can navigate the menu up/down.

The **triangle arrow**  $\nabla/\triangle$  at the right corner indicates if other settings of the menu are available on the next/previous «page» (display's screen). As you can see, there is a continuation of the menu. To go there just continue to rotate the **ENCODER (7)**:



To enter inside of any menu item, just go to the necessary menu string on the Ultima's display and push the **ENCODER (7)**. For example, if we will enter inside of the menu item **[FX] DL/RV**, we'll see another submenu with its own settings:



To go back to the previous menu list (level up) push the **ESC/EDIT (8)** button. To exit the menu completely / go to the **preset's saving menu** – push the **ESC/EDIT (8)** button another time:



**Clean:**  
With this function, you can clean totally all settings of the current preset and make it empty and then exit the preset's editing menu.

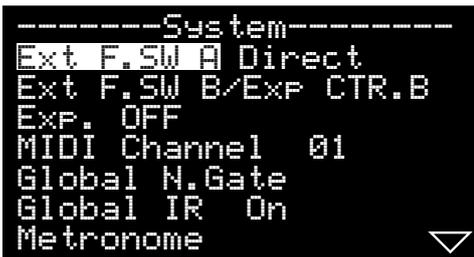
**Yes:**  
It saves the current preset «as it is» and then exit the preset's editing menu.

**No:**  
Exit from the preset's editing menu (without saving).

**Return:**  
Allows you to return back to continue work with the current preset.

## System (global) menu. Metronome

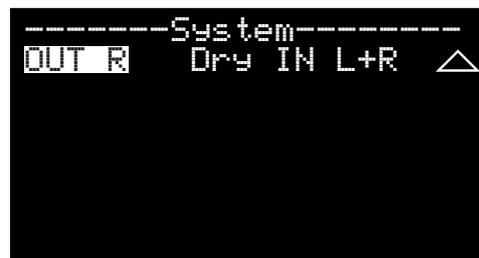
Being in the main display's screen (the main mode of the presets switching), to enter the **System (global) menu** make a long single push on the **ENCODER (7)**. You will see the System menu:



As you can see, **Metronome** settings are also available in this menu. By **ENCODER (7)** you can enter into the submenu to set up its configuration:



On the second screen of the System (global) menu, a global setting for controlling properties of **OUT R (1)** output is available:



There are **two options** for the **OUT R (1)** output:

**Full Mix** – it means from the **OUT R (1)** will be the sound of the Full Mix of both signals goes from **IN R (21)** and **IN L (MONO) (23)** inputs + all of Ultima's effects were activated in the current preset;

**Dry IN L+R** – it's the setting up when from the **OUT R (1)** will be translated just the **DRY** sound of the Full Mix of both signals goes from **IN R (21)** and **IN L (MONO) (23)** inputs **without any additional Ultima's effects** taken from the current preset (sometimes it called «DI signal from the preamp(s)»).

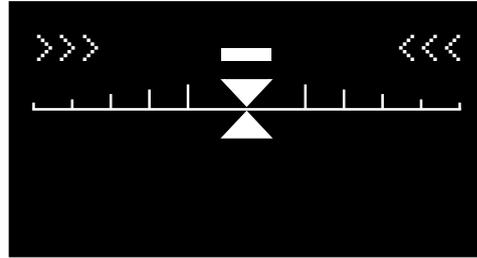
To go back to the previous menu list (level up) / go to the **preset's saving menu** – push the **ESC/EDIT (8)** button.

## How to enter the TUNER mode?

Being in the main display's screen (the main mode of the presets switching), to enter the **Tuner mode** make a double short press on the **ENCODER (7)**. Here you can also control a **Master Volume** of the Ultima U-2 device:



This is the Tuner's main window:



To exit from the Tuner mode just push the **ESC/EDIT (7)** button or shortly push the **FOOTSWITCH BUTTON (10)**.

## How to check quickly IR's name from the Preset?

Be sure you're in the main display's screen (the main mode of the presets switching):



To enter into the viewing screen with the name of WAV IR (Impulse Response) of the Preset, make a single short press on the **ENCODER (7)**.

After that you will see the full name of preset's WAV file:



To exit just make a single short press on the **ENCODER (7)** and you'll find yourself in the main display's screen (the main mode of the presets switching).

## [CM] Compressor's Pre/Post modes

For the firmware starting from version **v1.01.02**, it is possible to place the **[CM] Compressor** effect in different positions of the virtual preset effects chain by using **Pre/Post** modes.



### Pre mode

When using this mode, the Compressor is located in the virtual chain **after the wah-wah effect [WH] before [FX]** (Phaser / Chorus):



### Post mode

In this case the Compressor will be placed after the **Low&High Pass filters [FT] before [FX]** (DL/RV):



**Important note:** on the main Ultima's display screen (where the preset name and number are displayed), **the visual sequence of the effects icons is always the same:**



At the same time, in the preset menu window there is an indication which mode (**Pre** or **Post**) the Compressor is currently operating in:

