AVP SYNTHESIZERS

ADS-7 Analog Drum Synthesizer

with 32 step sequencer

User Manual

ADS-7 - is an analog drum synthesizer inspired by the drum machines/synthesizers of the 70s-80s with a built-in 32-step sequencer and MIDI control. It has 65 controls, 4 switches and 27 buttons with which you can have a wide control over the sound parameters, sequencer and MIDI. It has individual audio outputs and individual trigger inputs for each of the seven sounds.

Assembled in Moscow/Russia using discrete components and OTA chips.
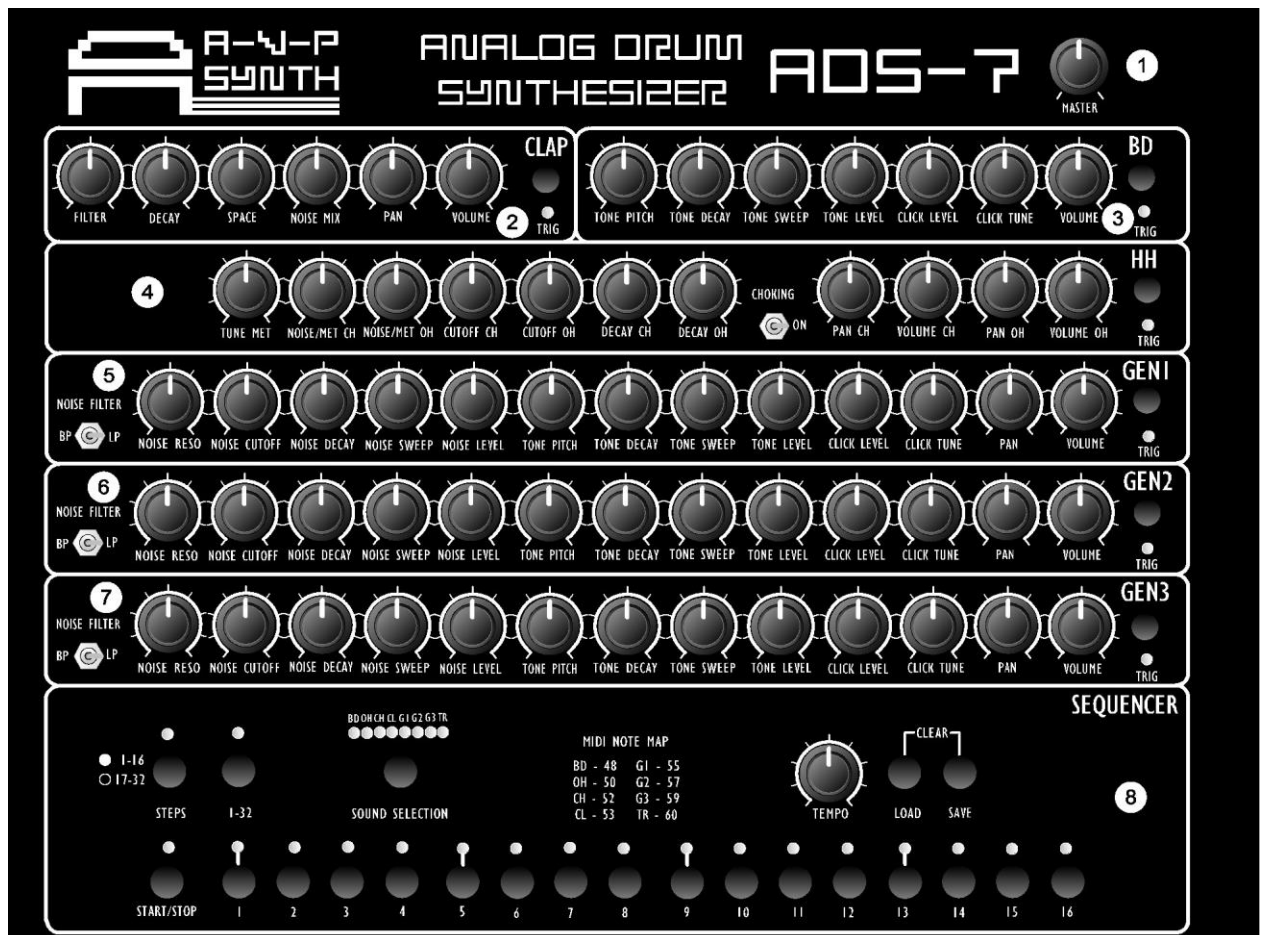
Specification

- Fully analog, discreet components;
- 7 individual sound channels: BD, Clap, OH/CH (choking on/off function), 3 separate Generators (GEN) with Band-pass and Low-pass filter options;
- 65 knobs/controls for different sound shaping options: from standard noise to metallic tones;
- 16/32 step analog sequencer;
- Ability to clock external gear with the sequencer;
- Up to 32 steps preset loading/saving slots;
- MIDI In/MIDI Out;
- 3.5 mm individual triggers;
- Stereo/individual 6.3 mm outputs for each sound plus 1 trigger out;
- Steel casing;
- Dimensions: L330xW250xH140 mm;
- Weight: 3.5 kg (without power supply);
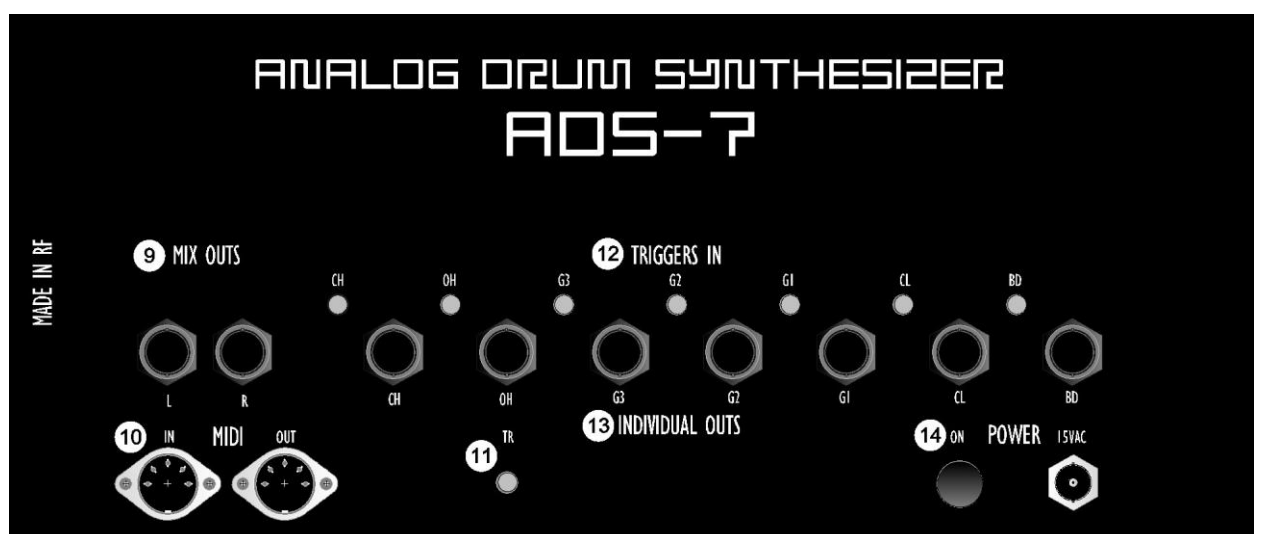- 15 VAC 220v power supply (included).

Controls

Front panel

ANALOG DRUM SYNTHESIZER ADS-7

A-V-P SYNTH

MASTER ①

CLAP ②
FILTER DECAY SPACE NOISE MIX PAN VOLUME TRIG

BD ③
TONE PITCH TONE DECAY TONE SWEEP TONE LEVEL CLICK LEVEL CLICK TUNE VOLUME TRIG

HH ④
TUNE MET NOISE/MET CH NOISE/MET OH CUTOFF CH CUTOFF OH DECAY CH DECAY OH CHOKING ON PAN CH VOLUME CH PAN OH VOLUME OH TRIG

GEN1 ⑤
NOISE FILTER BP LP
NOISE RESO NOISE CUTOFF NOISE DECAY NOISE SWEEP NOISE LEVEL TONE PITCH TONE DECAY TONE SWEEP TONE LEVEL CLICK LEVEL CLICK TUNE PAN VOLUME TRIG

GEN2 ⑥
NOISE FILTER BP LP
NOISE RESO NOISE CUTOFF NOISE DECAY NOISE SWEEP NOISE LEVEL TONE PITCH TONE DECAY TONE SWEEP TONE LEVEL CLICK LEVEL CLICK TUNE PAN VOLUME TRIG

GEN3 ⑦
NOISE FILTER BP LP
NOISE RESO NOISE CUTOFF NOISE DECAY NOISE SWEEP NOISE LEVEL TONE PITCH TONE DECAY TONE SWEEP TONE LEVEL CLICK LEVEL CLICK TUNE PAN VOLUME TRIG

SEQUENCER ⑧

BD OH CH CL G1 G2 G3 TR

MIDI NOTE MAP
BD - 48   G1 - 55
OH - 50   G2 - 57
CH - 52   G3 - 59
CL - 53   TR - 60

CLEAR

1-16
17-32

STEPS 1-32 SOUND SELECTION TEMPO LOAD SAVE

START/STOP 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Rear panel

ANALOG DRUM SYNTHESIZER ADS-7

MADE IN RF

⑨ MIX OUTS
CH OH
L R

⑫ TRIGGERS IN
G3 G2 G1 CL BD

CH OH G3 G2 G1 CL BD

⑬ INDIVIDUAL OUTS

⑩ IN MIDI OUT

⑪ TR

⑭ ON POWER 15VAC

① **MASTER section**
Regulates the master volume of the unit

② **CLAP section**
TRIG - manual trigger with LED indicator
VOLUME – volume control level
PAN – panning control (L-R)
NOISE MIX – mixing of the noise component with the CLAP
SPACE – attack time control of the CLAP
DECAY – decay control of the noise
FILTER – cutoff filter control

③ **BASS DRUM (BD) section**
TRIG – manual trigger with LED indicator
VOLUME – volume control level
CLICK TUNE – tonal click control
CLICK LEVEL – click volume control
TONE LEVEL – tone volume control
TONE SWEEP –SWEEP control of the tone
TONE DECAY – tone decay control
TONE PITCH – tone pitch control

④ **HI-HAT section (HH)** – **consists of OPEN HAT and CLOSED HAT**
TRIG - manual trigger with LED indicator of OH and CH
VOLUME OH – volume control level of Open Hat
PAN OH – panning control of Open Hat (L-R)
VOLUME CH – volume control level of Closed Hat
PAN CH – panning control of Closed Hat (L-R)
CHOKING – turns on the choking effect of Closed Hat applied to Open Hat
DECAY OH - decay control of Open Hat
DECAY CH - decay control of Closed Hat
CUTOFF OH - filet CUTOFF control of Open Hat
CUTOFF CH - filter CUTOFF control of Closed Hat
NOISE/MET OH – mixing level between the noise and metallic tone of Open Hat
NOISE/MET CH – mixing level between the noise and metallic tone of Closed Hat
TUNE MET – Pitch control of the metallic tone

Notice: Due to the circuitry being fully discreet, some level of "bleeding in" the audio path occurs (both in MIX and INDIVIDUAL outs). This only happens at a high ("hot") volume/gain settings. If used more gently, no bleeding can be heard.

⑤ ⑥ ⑦ **GENERATOR section (GEN1, GEN2, GEN3)**
TRIG - manual trigger with LED indicator
VOLUME – volume control level

PAN – panning control (L-R)
CLICK TUNE – tonal click control
CLICK LEVEL – click volume control
TONE LEVEL – tone volume control
TONE SWEEP – SWEEP control of the tone
TONE DECAY – tone decay control
TONE PITCH – tone pitch control
NOISE LEVEL – noise volume control
NOISE SWEEP – noise SWEEP control
NOISE DECAY – noise decay control
NOISE CUTOFF – noise filter CUTOFF control
NOISE RESO – noise resonance control
NOISE FILTER – switch for changing between the Band-pass and Low-pass filter mode of the noise

⑧ **SEQUENCER section**
STEPS button – selects step modes (1-16 and 17-32)
1-32 button – turns on 32-step mode
SOUND SELECTION button – selects mode of one of the seven drum synthesizers (BD, OH, CH, CL, G1, G2, G3) plus the trigger output (TR) on the rear panel for the control of external drum devices.
TEMPO control – controls the speed of the steps.
LOAD button – loads a saved programmed pattern from memory (32 slots)
SAVE button – stores the programmed pattern to memory (32 slots)
The combination of the LOAD and SAVE buttons in a certain order allows you to delete the dialed sequences (the **CLEAR** function).
START/STOP button – starts and stops the sequencer.
Buttons and indicators **1-16** - multifunctional buttons and indicators that enable/disable: sequencer steps; the midi channel number setting; storing and loading of the patterns into the sequencer.

⑨ **MIX OUTS** – 6.3 mm jacks for connecting the unit to a mixer, amplifier or other sound device.

⑩ **MIDI IN/OUT** –DIN5 connector to connect the unit to MIDI source.

⑪ **TR** - 3.5 mm jack for controlling the external drum devices. Provides a pulse with duration of 2 ms and a level of 5V.

⑫ **TRIGGERS IN** – 3.5 mm jacks for external control of the unit's sections.

⑬ **INDIVIDUAL OUTS** – 6.3 mm jacks for connection to a mixer or other audio devices.

⑭ **POWER** - button to turn on the unit and socket 15 VAC to connect the power adapter.

Connecting ADS-7

Connect the power adapter, audio and MIDI cables to your ADS-7 rear connectors.

Power supply (15 VAC): Connect the included power adapter to the **POWER** input of ADS-7;
Audio output (6.3mm jack): insert cables with 1/4 mono jacks into the MIX OUTS or individual outputs INDIVIDUAL OUTS jacks in order to connect the ADS-7 to a mixer or other audio equipment;
MIDI input: connect the MIDI OUT of an external sequencer or MIDI keyboard (or another MIDI device) to the MIDI IN jack of the ADS-7 synthesizer.

Powering on ADS-7

Press the **POWER ON** button. The BD indicator in the sequencer section will light up indicating that the unit is turned on.

Sequencer section

MIDI-channel selection setting

The 1st MIDI channel is set by default in ADS-7. To change it, turn off the device then press and hold the Start/Stop button, while continuing holding the button turn on the device, continue holding it until the START/STOP and STEPS LEDs start flashing. The first MIDI note received from the MIDI controller will set the MIDI channel number. After installation, one of the LEDs (1-16) will light up indicating the selected MIDI channel (from 1 to 16). After that, you need to Power off ADS-7 and then turn it on again to resume normal operation. Now the set MIDI channel will be stored in the device memory.

START/STOP button

This button starts or stops the sequence playback. Sends START/STOP messages to MIDI OUT.

Step selection button STEPS

When the sequencer is not working:
The STEPS LED indicator is lit - the first 16 steps (1-16) are selected.
The STEPS LED indicator is not lit - the following 16 steps are selected (17-32).
When the sequencer is working:
The STEPS LED indicator is lit – the first 16 steps (1-16) are played.
The STEPS LED indicator is not lit - the following 16 steps are played (17-32).

Step selection button 1-32

The 1-32 LED does not lit - only 16 steps are played (1-16 or 17-32 depending on the selection of the STEPS button).
The LED 1-32 is lit - all 32 steps (1-32) are played back.

16 buttons STEPS

Pressing one of the step buttons switches the state of this step to on/off. If the STEPS LED is not lit, the first 16 steps (1-16) are edited. If the STEPS LED is lit, the next 16 steps are edited (17-32).

SOUND SELECTION button

This button selects one of the ADS-7's drum sections for editing on the sequencer. When the TR LED is selected, the TR located on the rear is fed with the sequence you have selected which allows you to control external sound sources (drums).

SAVE button

Press the SAVE button and then one of the 16 step buttons to select the location where the pattern will be saved. This saves all 32 steps of each of the eight sounds of the current pattern. ADS-7 has overall 32 saving slots.

LOAD button

Press the LOAD button and then one of the 16 step buttons to select the pattern to load. This will load all 32 steps of each of the eight sounds from the saved pattern. ADS-7 has overall 32 loading slots.

CLEAR function

In order to delete the programmed sequence of a particular drum section, you need to press the LOAD button then release it and press the SAVE button. In order to delete the entire programmed sequence using several or all of the drum sections you need to press the SAVE button then release it and press the LOAD button.

MIDI IN

MIDI notes are transmitted in real time to 8 trigger outputs in the following order: BD-48 note, OH-50, CH-52, CL-53, G1-55, G2-57, G3-59, TR-60.
Note: MIDI NOTE MAP is indicated on the ADS-7 panel in the SEQUENCER section.
If MIDI CLOCK messages are received, the sequencer will synchronize with MIDI CLOCK and will disconnect its internal clock. When synchronized to MIDI CLOCK, the tempo control can be used to select the amount of MIDI CLOCK per step (1-32). When the MIDI CLOCK message are not received within 1 second, the sequencer switches back to its internal clock.
The MIDI START message starts the sequencer.
The MIDI STOP message stops the sequencer.
The MIDI CONTINUE message starts the sequencer from the last step.

MIDI OUT

MIDI CLOCK messages are sent from the MIDI OUT. MIDI notes in messages are sent via MIDI OUT for MIDI control of other drum devices.

Warranty:

The standard warranty on ADS-7 synthesizer is for one year from the date of purchase.

1. The warranty does not apply in the following cases:
- Expiration of the guarantee (after one year from the date of purchase); After-guarantee servicing is possible, shipping both ways is at the expense of the buyer. We try to stay reasonable concerning servicing;
- There is any mechanical damage to the inside and/or outside of the unit;
- There are signs of opening or self-repair;
- A malfunction caused by self-updating software, or installing additional options/mods;
- A malfunction caused by damage of the product by other objects and liquids, as well as results of fog, rain and snow.

2. The guarantee does not apply to:
- Adapter;
- Controls if their failure was caused by normal wear or contamination during use.

Feel free to email us if you have any questions: avpsynths@gmail.com

www.avpsynth.com

A-V-P SYNTH

ADS-7   (BLOCK DIAGRAM)

START/ STOP

STEPS 1-16

SOUND SELECT

TEMPO

LOAD

SAVE

MIDI IN

MIDI OUT

SEQ

TRIG IN 1 → BD → OUT BD

MASTER
L
MIX OUTS
R

TRIG IN 2 → OH → OUT OH

TRIG IN 3 → CH → OUT CH

TRIG IN 4 → CLAP → OUT CL

TRIG IN 5 → GEN1 → OUT G1

TRIG IN 6 → GEN2 → OUT G2

TRIG IN 7 → GEN3 → OUT G3

8 → TR → OUT TR