dre:adbox

Hades

BASS SYNTHESIZER

user's manual

read before using this electronic device

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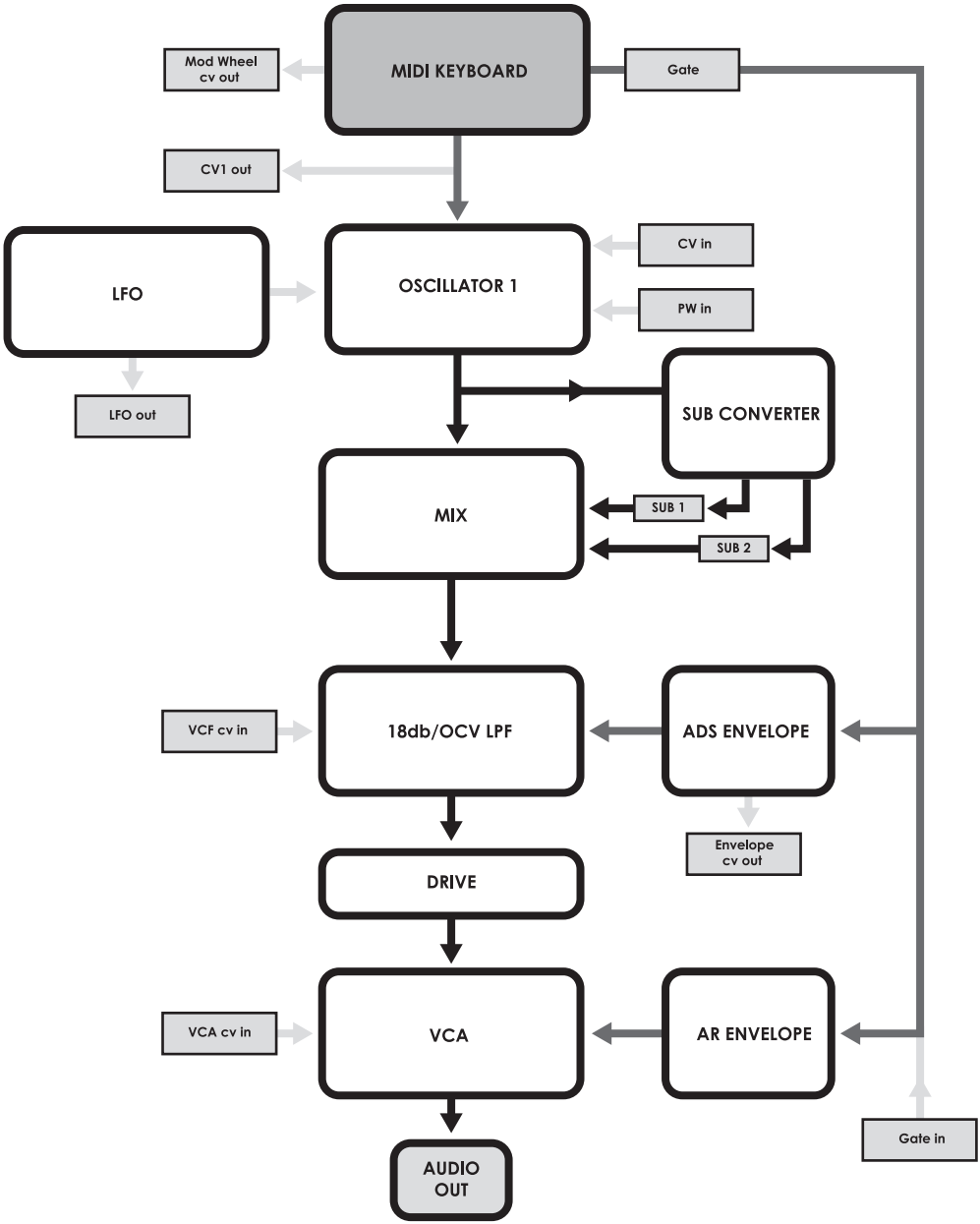
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SCHEMATIC DIAGRAM



1. Midi interface

Hades Midi interface will allow the following actions:

- Note(s) on / off (gate)

- Pitch tracking up to 5 octaves (C -1 up to C 4). The pitch is converted to 1v/ocv which can be accessed via the dedicated patch.

- Keyboard retrigger (always on) for the ADS envelope

- Pitch wheel for 1 octave up/down. This is also transmitted by the 1v/ocv output

- Modulation wheel (accessible only via patch) 0- 5v

- Midi channel selection OMNI or 2-7. The midi channel can be changed via a DIP switch located inside the hades
All off -> OMNI
3 on -> MIDI ch 2
1,3 on -> MIDI ch 3
2 on -> MIDI ch 4
1,2 on -> MIDI ch 5
2,3 on -> MIDI ch 6
All on -> MIDI ch 7

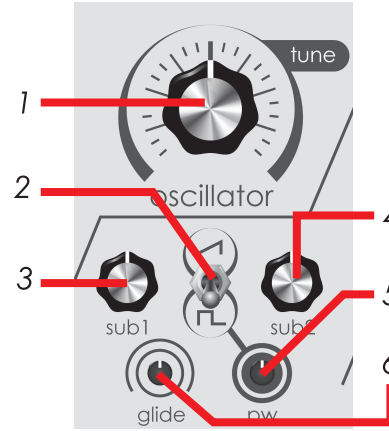
- Note priority for Low, Last, High
To change the priority find the lowest C on your MIDI keyboard (while hades is on power and connected with your keyboard) :
For low note priority: Press the C and F# keys at the same time.
For Last note priority: Press the C and G# keys at the same time.
For Hight note priority: Press the C and A# keys at the same time.

All of the other MIDI functions are disabled and it is best that they are turned off for optimal Hades performance.

2. Oscillator and Subs

The Hades oscillator needs about 5 to 20 minutes to warm up. You can just turn on the synth and play, but the tuning will change during that time. It work with the classic 1v/octave controllers or a midi source. By default the tune knob should point at about 12.00 o'clock for a correct tuning.

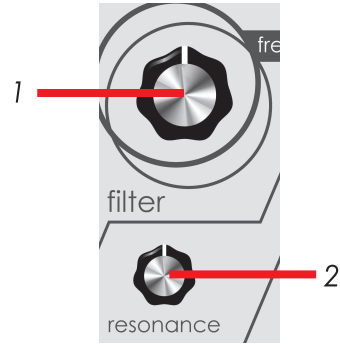
1. Oscillator Master Tune.
2. Oscillator wave selection.
   Center position is OFF
3. Sub wave one octave below level
4. Sub wave two octaves below level
5. Pulse width
6. Oscillator glide quantity



3 . Voltage controlled Filter

The filter of the Hades is a 3-pole 18db/octave resonating OTA based low pass filter. Frequency's range is from 20hz up to 18Khz

1. Set the cut off frequency of the filter.
2. Set the post resonance amount.



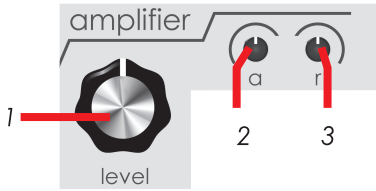
4 . Drive

Hades has an opamp - OTA drive circuit that is able to drive - and works best at- low frequencies. It is a fairly simple 1 knob function.



5. Amplifier

Hades's amplifier has a build in AR envelope generator. Notice that when the output Level is at max you get 10 volts p/p, so be careful not to hurt your ears or damage your speakers.

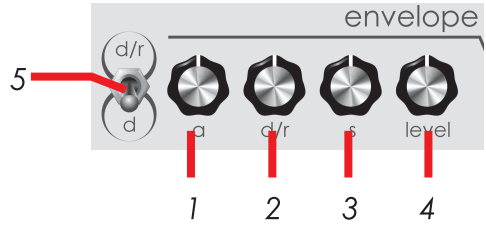


1. Master volume
2. Attack speed
3. Release speed

6. Attack, Decay/Release, Sustain, (AD/RS) envelope genarator

Hades's AD/RS is dedicated to the filter. It may deliver up to 6,6V of envelope (also accessible on a patch).

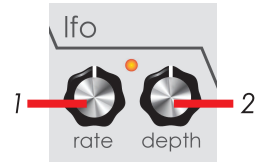
1. Attack speed
2. Decay and Release speed
3. Sustain point
4. Envelope Level
5. Decay or Decay and Release



7. Triangle wave LFO

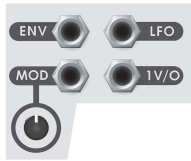
The LFO is deticated to the VCO. It has a wide range of frequencies, from 15 sec up to almost 1000 Hz . At low frequencies the wave is not a true triangle (For units with serial number above #600, the LFO rate is from 10 sec up to 50 Hz)

1. Lfo rate
2. Lfo depth



8. Patching

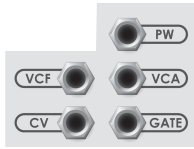
A. OUTPUTS - those patches only send voltage. You can send their CV to other devices, but first be sure that the receiver can accept such a voltage.



ENV - sends the envelope voltage. This will cancel the hardwired envelope to Filter connection
LFO - sends the LFO voltage. This will cancel the hardwired lfo to oscillator connection
MOD - sends the modulation wheel into a 0-5V format. The mini knob is an attenuator for the total amount.
1V/OCV - sends the Pitch tracking

NEVER CONNECT
AN OUTPUT WITH ANOTHER OUTPUT
This might cause serious damage to the unit and
we will not take any responsibility.

B. INPUTS - those patches can only receive voltage. It's safe to send more voltage than indicated (up to +/- 12V) but they won't always have results.



PW - contol for the oscillator pulse width
VCF - control for the filter frequency
VCA - control for the amp level. Inserting a cable will deactivate the AR envelope
CV - control for the ocillator pitch
GATE - control for the gate activation

Hades

BASS SYNTHESIZER

Specifications

•12VAC POWER INLET: Accepts +12VAC, 1 amperes at 2,5mm center pin

•MIDI interface: Midi in DIN socket, Pitch note/gate on-off, retrigger function, Mod wheel (hardwired on VCF), Pitch wheel, MIDI Channel select 1-7 or Omni (DIP switch)

•MONO AUDIO OUT (6,3mm TS-UNBALANCED): 10v p/p output max

•PATCHES (3,5mm mono)
- Gate in: activation at 0,9v in a low gain up to 5v for max gain
- CV in: works at 1v/oct, can accept from +/-12v
- 1v/ocv out: Sends 1v/oct (converted to analog from the midi in)
- Mod Wheel out: Converts the midi modulation wheel to analog 0-5v out
- Envelope out: 0-6,6v depending on the depth setting
- LFO out: +/- 5v
- LFO frequency range: 15sec up to 1khz
- VCF cv in: +/-5v
- VCA cv in: 0-5v
- PW cv in:+/-5v

Suggested room temperature for optimal oscillator stability: 18°-30° Celsius

Weight: 1,1 kgr
Size: 225mm X 16mm X 55mm

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