OWNER'S MANUAL of ASR101

OSCILLATOR

ADAMSYNTHS

The OSCILLATOR is a robust, high-stability, SAW core, through-zero analog VCO. Its symmetrical waveform outputs are DC-coupled, meaning they are capacitor-free. The waveform output level is 10 Vpp. This is an audiophile-grade solution that ensures distortion-free waveforms across the entire spectrum.

The oscillator's full frequency range spans 10 octaves, with a deviation of ± a few cents. Tuning is made extremely simple via the 16', 8', 4', and 2' RANGE buttons, along with a ±1 octave-scaled TUNE potentiometer. The TUNE knob can be configured to operate either continuously or in semitone steps.

In addition to the V/OCT input, there are two exponential FM inputs and one linear FM input, all individually controllable.

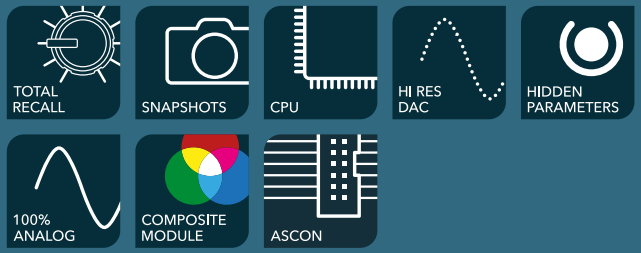
The module also features a switchable HARD SYNC input and a controllable PWM input. The square wave pulse width can be adjusted between 10% and 90%.

Alongside the individual SQR, SAW, TRI, and SINE waveform outputs, there is a selectable WAVE output and a SUB OSC output. The SUB OSC can optionally divide the square wave frequency by two or four.

Hidden Parameters of the OSCILLATOR

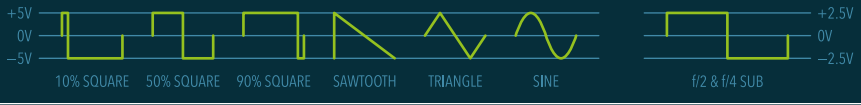
This menu contains all calibration parameters for the oscillator:
Initial Tune, Scale, HF Compensation, Initial Pulse Width

Features:



BLOCK DIAGRAM of ASR101

OSCILLATOR



ADAMSYNTHS

V/OCT
+5Vref
EXP FM1
EXP FM1
EXP FM2
EXP FM2
LIN FM
LIN FM
PWM
PWM
WIDTH
10% to 90%
SYNC

ANALOG VCO CORE

STEP BY SEMITONES
CONTINUOUS
SEMI
VCO RANGE SELECTOR
WAVEFORM SELECTOR
TUNE
–/+1 OCTAVE
FINE
b to #

SYNC
ON
OFF

/2
SUB
/4

FREQ DIVIDER /2 /4

WAVE
SUB

FRONT PANEL of ASR101

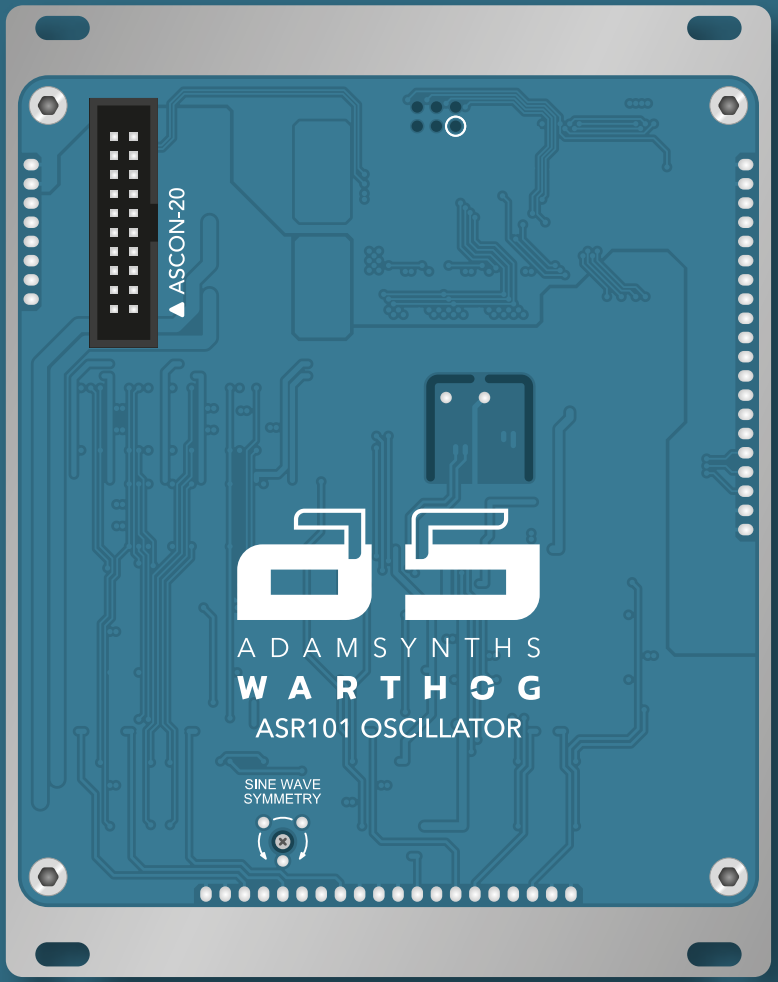
OSCILLATOR

1. **V/OCT Input** (-10V to +10V, recommended: 0 to 10V)
2. **Exp FM 1 Input** (-10V to +10V) **& Ammount** (0 to 100%)
3. **Exp FM 2 Input** (-10V to +10V) **& Ammount** (0 to 100%)
4. **Lin FM Input** (-10V to +10V) **& Ammount** (0 to 100%)
5. **PWM Input** (-10V to +10V, recommended -5V to +5V) **& Ammount** (0 to 100%)
6. **Sync Input** (-10V to +10V, recommended -5V to +5V) **& On / Off**
7. **Individual Waveform Outputs** (Square, Sawtooth, Triangle, Sine)
8. **Wave Selector & Output** (Square / Sawtooth / Triangle / Sine)
9. **Sub Osc Divider Selector & Output** (/2 or /4)

   All Wave outputs are symmetrical and DC coupled. Signal levels: 10Vpp.

10. **Pulse Width** (10% to 90%)
11. **Octave Range Selector** (16' / 8' / 4' / 2')
12. **Tune** (-1 Oct to +1 Oct)
13. **Fine Tune** (b to #)
14. **Tune Mode** (Semi / Continuous)
15. **Select This Module** (Access to Hidden Parameters and VCO Calibration Menu)

    The yellow LEDs by the Jack Sockets show where to plug the cables when loading patch.



BACK PANEL of ASR101

OSCILLATOR

ADAMSYNTHS

Power Consumption: -12V / N/A mA, +12V / N/A mA, +5V1 / N/A mA, +5V2 / N/A mA,
System Connector: ASCON-20 (Use only Adamsynths™ AS-PSU & AS-RAILS for this module.)
Module Dimension: 20HP / Depth: 33mm, Module Weight: N/A g

SAFETY AND WARRANTY GUIDELINES

Please follow the instructions below regarding the use of Adamsynths™ devices, as only these ensure proper operation and the validity of the Adamsynths™ warranty.

- Use Adamsynths™ modules exclusively with the power supply (AS-PSU) and rails (AS-RAILS) provided with the Adamsynths™ system. Using power supplies or rails from other manufacturers may result in malfunction or permanent damage.
- No liquid substances (such as water or alcohol) or solid, conductive materials may enter the Adamsynths™ modules, as these may cause electrical short circuits or permanent damage. If this occurs, immediately disconnect the device from power and contact us via the SUPPORT page at www.adamsynths.com.
- Never attempt to repair the device or modify, delete, or hack the control firmware or software, as these actionswill result in immediate loss of warranty.
- Do not expose Adamsynths™ modules to temperatures above +40°C or below -10°C. If the device has been transported at a temperature lower than room temperature, allow it to acclimate until all moisture has evaporated. This may take several hours. Only then should you connect it to power and begin operation.
- Always transport Adamsynths™ modules with care. Never allow them to fall or tip over. The warranty does not cover visually damaged products.
- Modules must be transported only in their original packaging. Products returned for replacement and/or warranty repair must be sent in their original packaging. All other shipments will be rejected and returned to you. Please ensure you retain the original packaging and technical documentation.

Adamsynths™ modules may become warm during several hours of operation – this is normal and not a cause for concern.

CLEANING AND MAINTENANCE: Clean the device daily. Always use a dusting brush and a soft, dry or slightly damp, non-abrasive cloth. Then wipe the device with a soft, dry cloth. Never use alcohol, benzine, thinner, acetone, or other solvents, nor alkaline or acidic cleaning agents, as these may cause discoloration or deformation.

WASTE DISPOSAL: Adamsynths™ devices comply with EU directives and are manufactured without the use of lead, mercury, cadmium, or chromium. They meet RoHS requirements. Nevertheless, these products are considered special waste and should not be disposed of with household waste.

If you have any questions, feel free to contact us via the SUPPORT page at www.adamsynths.com/support

Detailed safety and warranty information is available at www.adamsynths.com/support.

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