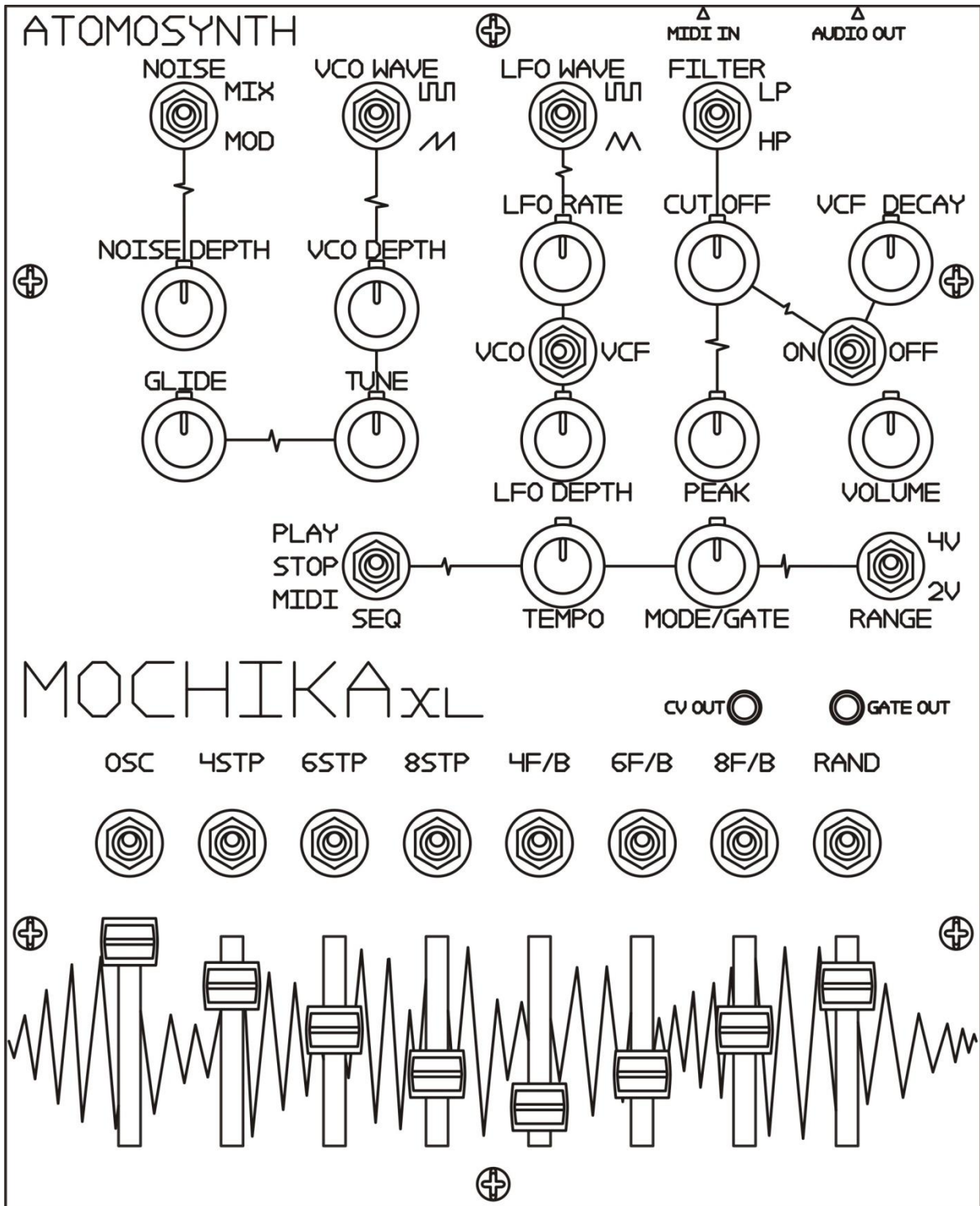


AtomoSynth Mochika XL v.2



Thank you for purchasing the AtomoSynth, Mochika XL version 2.

Analog synthesizer sequencer.

In order to enjoy long and trouble free use, please read this manual carefully and use the instrument correctly. After reading this manual, please keep it for later reference.

Precautions

Location

- Using the unit in the following locations can result in a malfunction.
- In direct sunlight
- Locations of extreme temperature or humidity
- Excessively dusty or dirty locations
- Locations of excessive vibration
- Close to magnetic fields

Power supply

Please connect the unit to an appropriate voltage AC outlet. Do not connect it to an AC outlet of voltage other than that for which your unit is intended.

Interference with other electrical devices

Radios and televisions placed nearby may experience reception interference. Operate this unit at a suitable distance from radios and televisions.

Handling

To avoid breakage, do not apply excessive force to the switches or controls.

Care

If the exterior becomes dirty, wipe it with a clean, dry cloth. Do not use liquid cleaners such as benzene or thinner or cleaning compounds or flammable polishes.

Keeping foreign matter out of your equipment

Never set any container with liquid in it near this equipment. If liquid gets into the equipment, it could cause a breakdown, fire, or electrical shock. Be careful not to let metal objects get into the equipment.

Basic operation (Quick Start)

1. Connect the power cable to mains.
2. Connect the output jack of the unit to an amplifier. Use unbalanced ¼" connector (mono plug). Before doing so, lower the volume of your amp. Note: the output is not designed to be used with headphones, connect it always to an amp.
3. Make sure the "SEQ" switcher is set to "STOP" position and turn on the unit using the power switch located in the rear panel.
4. Using the "MODE/GATE" knob select one of the playing modes, the Mochika XL v.2 has 12 playing modes:
 - "OSC": Oscillator playing mode.
 - "4STP": Four steps normal sequence.
 - "6SPT": Six steps normal sequence.
 - "8STP": Eight steps normal sequence.
 - "4F/B": Four steps forth and back sequence.
 - "6F/B": Six steps forth and back sequence.
 - "8F/B": Eight steps forth and back sequence.
 - "RAND": 8 note random sequence mode.
 - "OSC" and "4STP" LEDs lit: Gate arpeggio 1.
 - "6STP" and "8STP" LEDs lit: Gate arpeggio 2.
 - "4F/B" and "6F/B" LEDs lit: Gate arpeggio 3.
 - "8F/B" and "RAND" LEDs lit: Gate arpeggio 4.
5. Set the "SEQ" switcher to the "PLAY" position and set the "Tempo" knob to a desired tempo.
6. Set the "VCO wave" switch to a desired waveform and adjust the "VCO Depth" and "Volume" knobs to a desired level.
7. Set the "Tune" knob to a desired pitch range.
8. Turn on or off each step using the "Step switchers" and set the pitch of each step using the "Pitch faders".
9. Modulate the sound with the other parameter switchers and knobs.

Parameter Controls

Noise

- “NOISE” switcher: In “MIX” position mixes the noise output to the VCO output. In “MOD” position the noise output is routed to the CV input of the VCO modulating it.
- “NOISE DEPTH” Knob: It sets the amount of white noise applied.

VCO

- “VCO WAVE” switcher: It sets the waveform of the VCO (Voltage Controlled Oscillator) to square wave or ramp wave.
- “VCO DEPTH” knob: It sets the depth or level of the VCO output which will be applied to the input of the filter.
- “TUNE” Knob: It set the pitch range of the VCO.
- “GLIDE” knob: Sets the glide time effect.

LFO

- “LFO WAVE” switcher: It sets the waveform of the LFO (Low Frequency Oscillator) to square wave or triangle wave.
- “LFO RATE” Knob: It sets the frequency (velocity) of the LFO; a LED will indicate the actual frequency of the LFO.
- “VCO/VCF” mod switcher: in the VCO position it sends the LFO signal to the Oscillator to modulate its frequency. In the VCF position it sends the signal to the filter and affects the Cutoff parameter
- “LFO DEPTH” knob: It sets the depth or level of the LFO output signal.

VCF

- “FILTER” switcher: it sets the mode of the filter to “LP” low pass or “HP” high pass filter.
- “CUT OFF”: Set the cut off frequency.
- “PEAK”: Set the amount of resonance feedback.
- “VCF DECAY” knob: it sets the decay time of the filter envelope generator.
- Decay “ON/OFF” Switcher: it turns on or off the filter envelope generator.

Sequencer

- “SEQ” switcher: It sets the state of the sequencer: in the “PLAY” position starts the sequence or sound. In “STOP” it stops the sequence or sound. In “MIDI” position it starts the sequence with the tempo in synchronization to the external midi clock signal.
- “TEMPO” knob: It sets the Tempo (velocity) of the internal clock. In the “OSC” Oscillator playing mode it will set the step or note to be played.
- “MODE/GATE” knob: In “STOP” state it will set one of the 12 playing modes. In “PLAY” or “MIDI” states, it will set the gate time or duration of the notes or steps. In any of the 4 arpeggio playing modes, it will set the step or note to be played.
- “RANGE” switcher: In the “4V” position it will set the PITCH FADERS range to 4 volts or 4 octaves. In the “2V” position it will set the PITCH FADERS range to 2 volts or 2 octaves.
- STEP SWITCHERS: These will turn on and off each individual step.
- PITCH FADERS: These will set the pitch of each individual step.

Inputs and Outputs

- AUDIO OUT: Audio output used to connect the Mochika XL v.2 with an amplifier or mixer. Use unbalanced 1/4" connector (mono plug). Note: the output is not designed to be used with headphones, connect it always to an amp.
- CV OUT: The control voltage output is located on the front panel; it is used to control other analog synthesizers by the sequencer of the Mochika XL .The CV out is controlled by the step pitch knobs and is affected by the “RANGE” switcher and the “Glide” Knob. Use an unbalanced 1/8" connector (mini mono plug).
- GATE OUT: It is located on the front panel, it sends a +5 Volt gate signal.
- MIDI IN: Midi sync input, used to sync the Mochika2.1 with other midi devise. Use standard midi cable. Note: the Mochika XL receives midi clock signals only.

Midi Synchronization

The Mochika2 can be synchronized with other Midi devices via timing clock messages.

1. Connect the Midi out from the Master device to the Mochika2's Midi. (Make sure the master device is set to send midi clock signals).

2. In "STOP" state, using the "MODE/GATE" knob, select a playing mode. Note: the "OSC" playing mode cannot be Midi synchronized.
3. Turn the "SEQ" switcher to the "MIDI" position.
4. Using the "TEMPO" knob set the synchronization rate. (it can be set both in the "STOP" or in the "MIDI" state). The Mochika XL can sync 1, 2, 4 and 8 times Master clock tempo:
 - Sync at the same BMP: Set the "TEMPO" knob to the minimum position (all the way left)
 - Sync at twice the BPM: Set the "TEMPO" knob between the minimum and the middle.
 - Sync at 4 times the BPM: Set the "TEMPO" knob between the middle and the maximum position
 - Sync at 8 times the BPM: Set the "TEMPO" knob to the maximum position (all the way right).

Oscillator playing mode

1. With the "SEQ" switcher in the "STOP" state, using the "MODE/GATE" knob, select "OSC" playing mode.
2. Turn the "SEQ" switcher to the "PLAY" position.
3. Using the "TEMPO" knob set the step or note to be played.
4. Using the "MODE/GATE" knob set the duration of the notes. When it is set to the maximum position (all the way right) the notes will not stop and will sound continuously.
5. Modulate the sound with the other parameters switchers and knobs.

Gate arpeggiator playing mode

1. With the "SEQ" switcher in the "STOP" state, using the "MODE/GATE" knob, select to any of the four gate arpeggiator playing modes:
 - "OSC" and "4STP" LEDs lit: Gate arpeggio 1.
 - "6STP" and "8STP" LEDs lit: Gate arpeggio 2.
 - "4F/B" and "6F/B" LEDs lit: Gate arpeggio 3.
 - "8F/B" and "RAND" LEDs lit: Gate arpeggio 4.
2. Turn the "SEQ" switcher to the "PLAY" or "MIDI" position.
3. Using the "TEMPO" knob set the tempo or synchronization rate. (It can be set both in the "STOP" and in the "MIDI" state).
4. Using the "MODE/GATE" knob, set the step or note to be played.
5. Modulate the sound with the other parameters switchers and knobs.

Troubleshooting

The unit does not turn on

- Is the power cord connected to the unit?
- Is the power cord plugged into the appropriate voltage AV outlet?

No sound!

- Is your amp, mixer, or headphones connected?
- Are your amp or mixer powered-on and set correctly?
- Is the master volume knob raised?
- Is the "VCO Depth" knob raised?
- Are the tune knob and/or step pitch knobs set to a subsonic or ultrasonic pitch?

The unit does not start or got frozen.

- Turn off the unit, wait some seconds and turn it on again.

AtomoSynth E.I.R.L.

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info@atomosynth.com

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