

Audity 2000

DIGITAL RHYTHMIC MODULAR SYNTHESIZER (DRMS)



Audity™ 2000 is E-mu's new rhythmic synthesizer that provides revolutionary synthesis and rhythm generation technologies to give life to your music like never before. Audity 2000 features 12th order resonant modeling filters, multiple synchronizable modulation destinations and a 16 channel Rhythm Pattern Generator/Arpeggiator. The Audity 2000 not only gives you incredible sounds and rhythms, but also the power to create new sounds and rhythm patterns to express your unique style.

▼ Rhythmic Ecstasy

At the heart of Audity 2000 is its advanced Rhythmic Pattern Generator/Arpeggiator that allows you to simultaneously play up to 16 fully synchronized arpeggiator patterns of incredible complexity. You can easily edit these patterns using intuitive pattern flow commands such as delay for 2 bars, play for 4 bars, and repeat. Audity allows you to perfectly synch up to 8 LFOs and 12 envelopes in each preset to control filters, pitch, pan, volume and more, for an almost limitless number of synchronizable modulation variations. All rhythmic patterns and preset parameters can be synchronized to Audity's internal clock or an external MIDI source. In addition, you can play back your other MIDI modules and samplers using Audity's Arpeggiator/Rhythmic Pattern Generator to energize your old sounds!

▼ Synthesize, Manipulate, Create

Audity 2000 offers a diverse palette of sounds - from traditional analog waveforms to screaming pitched digital noise. Audity 2000 supplies 640 motivational presets and then gives you the power to create an almost infinite number of your own hybrid sounds. Once you have blended your waveforms, sculpt them with Audity's arsenal of 12th order filters,

dual 24 bit stereo-effects processor and PatchCord architecture to customize your sounds even further. With Audity, your sounds are never static since you can edit and modulate key parameters using the four real-time knobs and then store the new presets for instant recall.

Audity 2000 brings you not only the latest sounds and features, but also has the core features that you have come to expect from E-mu®: strikingly original sounds, expressive filter technology, advanced DSP FX, and a host of professional features that reflect E-mu's philosophy of powerful, yet easy-to-use products. Whether integrated into your MIDI setup or used alone, Audity 2000 will move your music to a higher ground.

▼ Key Features

- 640 ROM presets, 256 user presets
- 4 layers per preset
- 16 channel Arpeggiator/Rhythmic Pattern Generator
- 12th order digital resonant and modeling filters
- MIDI clock modulation features
- 24 bit dual stereo-effects processor
- 12 real-time controls, via 4 front panel knobs
- 6 audio outputs
- 16 part multi-timbral
- 64 voice polyphony (using filter voice dynamic allocation)
- Stereo digital output
- Expandable sound ROM
- SoundNavigator

▼ Specifications

▼ Controls

Power Switch, (4) Real-time Controllers, Data Entry Control, Master Menu Select, Edit Menu Select, Clock Menu Select, Arpeggiator Menu Select, Cursor Control, Save/Copy, Home/Enter, Master Volume, Backlit 2 x 24 Character LCD

▼ Menus

• Main Menu

Preset Selection, MIDI Channel Selection, Channel Volume, Channel Pan, Arpeggiator Setting

• Master Menu

Transpose, Tune, Master Bend Range, Master Velocity Curve, Mix Output, FX Mode, FX MultiMode Control, Master FX A, Master FX B, MIDI Mode, SysEx ID, MIDI Enable, MIDI Bank Select, MIDI Program -> Preset Re-mapping, Preset Change Enable, Real-time Controllers (A-L), MIDI Footswitch Assign, Tempo Control (up/down), Knob Preset Quick Edit, Knob Transmit MIDI Enable, Preset Edit All Layers Enable, Send MIDI SysEx Data, User Key Tunings (1-12), Output Format (analog, S/PDIF, AES pro), Demo Sequence (1-4), Screen Viewing Angle

• Clock Menu

Global Tempo (external, 1 BPM - 300 BPM)

• Save/Copy Menu

Save Preset, Copy Preset, Copy Layer, Copy Patch Cords, Copy Arpeggiator, Copy Bank, Randomize Preset

• Edit Menu

Preset Name, Instrument (Layer 1-4)

Per Layer Parameters:

Key/Velocity/Real-time Controllers, Transpose, Tuning, Volume/Pan, Amplifier Envelope Mode (Factory, Time, Tempo), Amplifier Envelope (6 rates, 6 levels), Chorus Width, Sound Start Offset and Delay (Delay = Time, Tempo), Non-Transpose, Loop Enable, Solo Mode, Multiple Trigger, Melody (last, low, high), Synth (last, low, high), Finger Glide, Assign Group (Poly all, Poly 16 A/B, Poly 8 A-D, Poly 4 A-D, Poly 2 A-D, Mono A-I), Glide Rate, Glide Curve, Filter Type, Filter Frequency, Filter Resonance, Filter Envelope Mode (Factory, Time, Tempo), Filter Envelope (6 rates, 6 levels), Filter Envelope, Repeat Enable, Auxiliary Envelope Mode (Factory, Time, Tempo), Auxiliary Envelope (6 rates, 6 levels), Auxiliary Envelope Repeat Enable,

LFO 1 Sync (Free Run, Key Sync),

LFO 1 Shape (Sawtooth, Sine, Square, Triangle, Random, Pulse 1-4, Pattern 1-4, Noise 1-3),

LFO 1 Rate (Hz, Tempo),

LFO 1 Delay (Time, Tempo), LFO 1 Variation,

LFO 2 Sync (Free Run, Key Sync),

LFO 2 Shape (Sawtooth, Sine, Square, Triangle, Random, Pulse 1-4, Pattern 1-4, Noise 1-3),

LFO 2 Rate (Hz, Tempo),

LFO 2 Delay (Time, Tempo), LFO 2 Variation,

Patch Cords (24, >60 sources, >60 Destinations),

Pitch Bend Range, Mix Output

Preset Common Parameters:

Arpeggiator: (Mode, Pattern, Note Value, Resolution, Velocity, Gate Time, Extension Count, Extension Interval, Sync, Delay, Duration, Recycle, Keyboard Thru, Latch, Key Range)

Effects: FXA, (>30 Algorithms, Delay, High Frequency Damp, FXB -> FXA Send, Send Amount), FXB , (>30 Algorithms, Feedback, LFO Rate, Delay, Send Amount)

Initial Controllers A-L, FX Cords (1-12)

Keyboard Tuning (Equal, Just C, Vallotti, 19-Tone, Gamelan, User (1-12))

Preset Link 1 (Preset #, Key Range, Velocity Range, Volume, Transpose, Delay (Time, Tempo))

Preset Link 2 (Preset #, Key Range, Velocity Range, Volume, Transpose, Delay (Time, Tempo)), Tempo Offset, Play Solo Layers

• Arpeggiator Menu

Global Arpeggiator (Mode, Pattern, Note Value, Resolution, Velocity, Gate Time, Extension Count, Extension Interval, Sync, Delay, Duration, Recycle, Keyboard Thru, Latch, Key Range)

Arpeggiator Transmit MIDI, MIDI Song Start enable, Arpeggiator Send MIDI SysEx Data, Edit User Pattern (1-100), Step (1-32), Key Offset (off, rest, tie, skip, -48 to +48), Velocity (played, 1 to 127), Duration (Clock), Repeat (x1 to x32), Pattern Name

▼ Technical Specifications

Audio Channels: 64 (2 per 12th order filter, 1 per 6th order filter)

MIDI Channels: 16

Presets: 896 (256 RAM, 640 ROM)

Layers: 4

Sound Memory: 16 MB (expandable to 32 MB)

Arpeggiators: 16

ARP Patterns: 100 user patterns (32 steps each), 100 Factory Patterns, up, down, up/down, forward assign, backward assign, random.

Filters: 12th order (33 different types), 6th order (17 different types)

Data Encoding: 16-bit linear, 18-bit DAC's

Signal to Noise: >92 dB

Frequency Response: 20Hz - 20kHz (+2/-1dB)

THD + Noise: <0.02% (1 kHz sine wave, A-Weighting)

Power Consumption: 15 Watts

Voltage Input: 90VAC - 260VAC at 50 Hz - 60Hz

Maximum Output Level: +4dB

Output Impedance: 1000 Ohms

Effects Engine: 24 bit internal processing

• Audio Inputs

Effects Return 1 In (stereo), Effects Return 2 In (stereo)

• Audio Outputs

6 polyphonic (configurable as three pairs of stereo with programmable panning), Stereo digital S/PDIF (AES pro compatible)

• Rack Dimensions

Height 1.75", Width: 19", Depth: 8.5"

Grid Button:

Use the Grid Button to select the row of synth and arpeggiator parameters to be controlled by Audity's real-time knobs. The first two rows edit Audity's synth parameters while the third row edits the arpeggiator parameters.

Quick edit LED:

These LEDs indicate that you have moved the knob from its default position.

Master:

Access Audity's global parameters such as MIDI channel filters, Clock Tempo Control, SYSEX commands and more using the Master Button.

Edit:

Use the Edit Button to enter the "deep" parameters of Audity's advanced synth engine.

Cursor:

Move between the different fields on the screen using the two cursor buttons, enabling you to edit these values using the data knob.

Data Knob:

Turn the Data Knob to change the parameter value currently selected by the cursor.



Quick Edit/Real-time Control Knobs:

You can use the real-time control knobs to both quickly edit your preset parameters and act as assignable real-time MIDI controllers. The default settings are labelled on the front panel in three rows, of which the first two rows can be configured per preset. These knobs serve as your navigational tools when you enter "deep edit" mode.

Clock:

Access Audity's global clock by pressing the Clock Button. You can choose between Audity's internal clock (range: 1-300 BPM) or an external MIDI clock.

ARP:

You can use the ARP Button to quickly access to the Master Arpeggiator parameters and ARP Pattern editing and creation functions.

Save/Copy:

Press the Save/Copy Button to save an edited preset and copy PatchCords, ARP setups and preset parameters from one preset to another. The Save LED lights up to indicate that you have changed the current preset in either "quick edit" or "deep edit", and acts as a reminder to save the new preset before moving on.

Home/Enter:

You can use the Home/Enter Button to confirm a save, enter a new field or return the cursor to its home position.

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