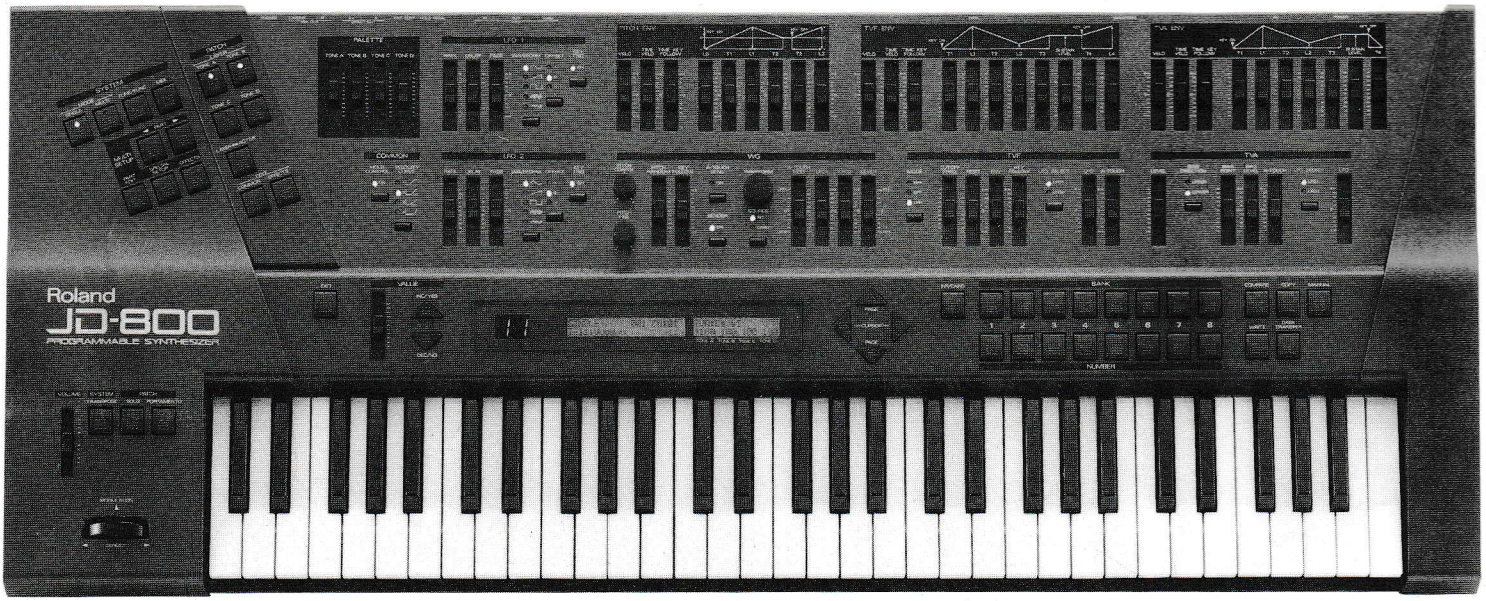
1991 ROLAND NEW PRODUCT NEWS

JD-800

PROGRAMMABLE SYNTHESIZER



The JD-800 Programmable Synthesizer is Roland's new state-of-the-art professional performance keyboard. The JD-800 represents a breakthrough in synthesizer technology that combines the high sound quality of a digital synthesizer with the flexible sound manipulation capabilities of analog synths.

A large number of dedicated sliders are provided on the JD-800's front panel, with each slider assigned to a separate parameter so sounds can be easily modified in real time, even during performance. This is a radical departure from conventional digital synths, which require users to call up desired parameters one at a time, then edit using value buttons.

The JD-800's newly developed sound source offers 108 preset waveforms which users can modify with a range of parameters including a high-performance TVF. These totally new user-created sounds can be stored in the JD-800's internal memory as well as on an external memory card for instant recall. Extensive multitimbral and master keyboard capabilities are also provided as well as built-in multi-effects with quality and variety surpassing that of dedicated units. The combination of all these features make the JD-800 an ideal main performance synthesizer, as well as a versatile master controller in a sophisticated multikeyboard system.

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Dedicated sliders provide analog synthesizer-like sound creation

The JD-800's multiple slider design is the result of extensive research to determine the most efficient and intuitive method of sound creation. These sliders are laid out on the front panel according to the logical flow of sound creation: Wave Generator→TVF→TVA, so users can confirm the construction of sounds on the front panel while adjusting each parameter. This provides a natural process for creating sounds, beginning from the basic original waveforms to complex parameter adjustment. The sliders are also the most effective way to make tonal adjustments in real time, allowing users to affect subtle and expressive tonal alterations as they play.

In addition to these analog synth-like features, the JD-800 offers benefits that only digital equipment can provide, such as instant confirmation and precise control of parameter values on the large LCD while editing with the sliders.

Newly developed digital sound source supports high-definition sound creation

Featuring a new chip with a high sampling rate and a wide range of parameters, the JD-800 offers unprecedented sound creation possibilities. Powerful waveform processing enables users to create stunning Tones, the basic unit of sound on the JD-800. Tones are created by the logical configuration of: Wave Generator→TVF→TVA.

Wave Generator

The JD-800 provides an incredible 108 built-in original waveforms, each with high-definition processing at a high sampling rate. These waveforms are ideal raw materials for processing using TVF. Waveform parameters such as Pitch Envelope and Pitch Randomize, which adds a subtle fluctuation of pitch, can be modified. The variety of available waveforms can be further augmented with optional SO-JD80 Series Waveform Cards.

TVF (Time Variant Filter)

The JD-800's TVF offers selectable high-pass, low-pass and band-pass filtering, with resonance that can be set for self-oscillation. This versatile filtering capability provides an extraordinary range of tonal possibilities.

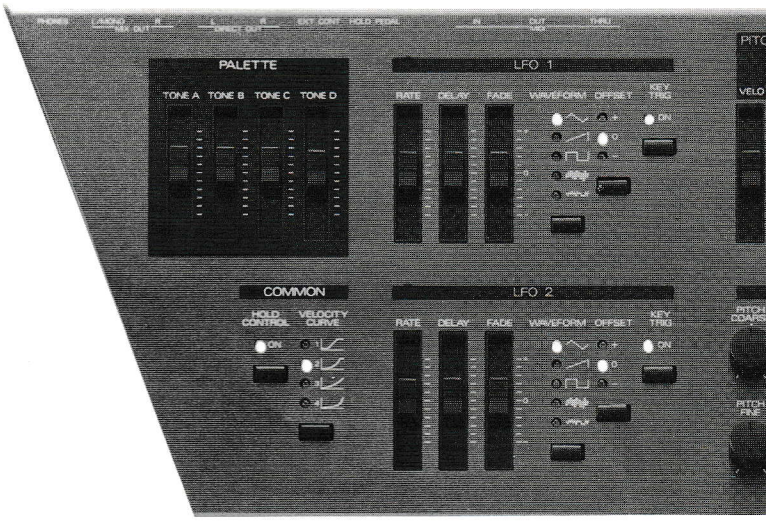
TVA (Time Variant Amplifier)

The JD-800's TVA is provided with Bias—an advanced Key Follow facility. Bias allows users to change the balance of several Tones according to key range when using multiple layered Tones.

Envelope Generator/LFO

An individual envelope generator is provided to add separate envelope modification for pitch, tonality and volume.

Two independent LFOs are also furnished, featuring various delay vibrato effects including a Fade control function that creates a gradual increase and decrease of LFO modulation. The modulation waveform can be selected from triangular wave, sawtooth wave, square wave, sample & hold and random.



Tones enable flexible layer and split configurations

Up to four Tones created through the JD-800's synthesis techniques can be layered for a thick, rich sound. Different Tones can be assigned to different portions of a single sound, like the Attack, Decay, Sustain and Release portions of a sound. It is also possible to set an individual key range for each Tone, enabling versatile 4-zone splits on the JD-800's 61-key keyboard.

Patches provide instant access to Tone and MIDI configurations

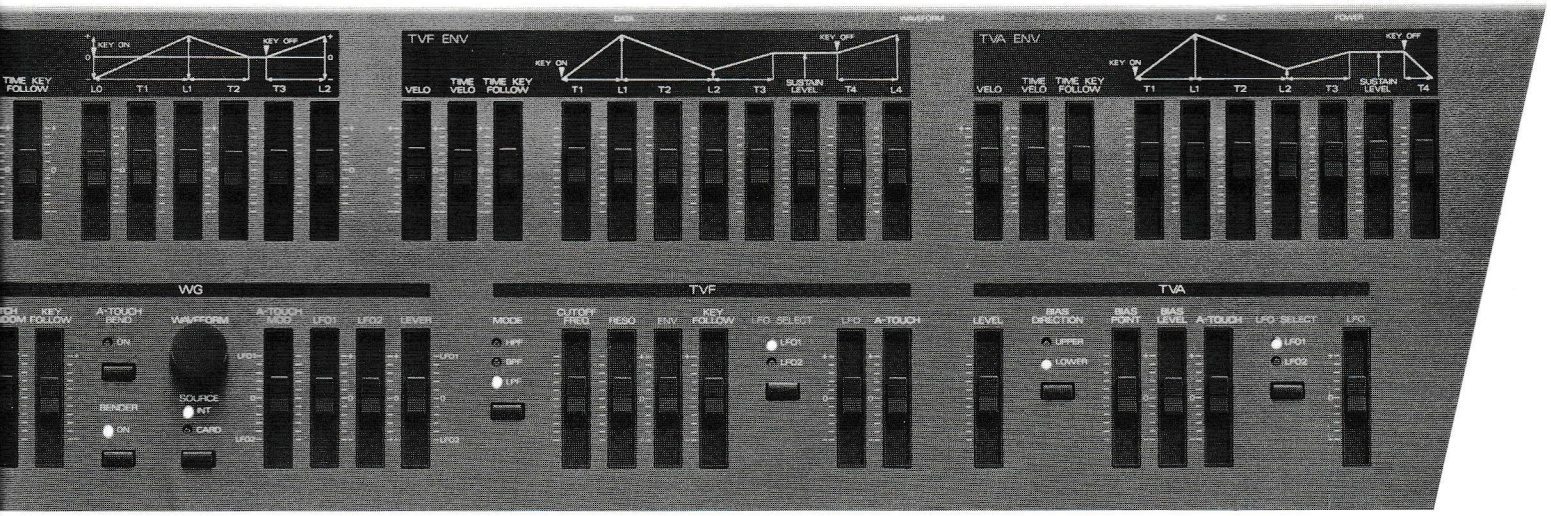
The configuration of four Tones is called a Patch, and 64 Patches can be stored in the JD-800's internal memory, and another 64 can be stored on an external memory card (M-256E).

Patches can be instantly recalled and various settings for 4-Tone combinations can be easily edited using the front-panel sliders. Active Tone selection allows several different parameters of a specific Tone within a Patch to be modified with the front panel sliders. Or, using the Palette function, users can edit the same parameter for all four Tones, with each slider controlling that parameter for its respective Tone.

A Patch can also store built-in effects settings as well as MIDI settings such as MIDI transmit channel. This gives users easy, comprehensive control over both the internal sounds and sounds of external MIDI devices.

Solo mode adds to expressiveness

Another unique feature of the JD-800 is the Solo mode. When a lead solo or Synth Bass sound is played with the Solo mode on, the JD-800 functions as a monophonic synthesizer. The Solo mode also features Portamento and Legato functions for adding expressive nuances to performances. Solo mode settings can be stored to a Patch.



Two Performance modes accommodate multiple applications

The JD-800 offers two selectable Performance modes that enable the JD-800 to be used in a variety of different ways.

Single mode is designed for using the JD-800 as a keyboard synthesizer. Different Patch configurations enable the keyboard to be split or sounds to be layered for a range of creative performance capabilities.

In Multi mode, the JD-800 can function as a 6-Part multitimbral sound source. Individual Patches can be assigned to Parts 1-5, and Part 6, called a Special Part, allows users to assign an individual Tone to each of the 61 keys of the JD-800 keyboard, a feature ideal for drum and percussion setups, sound effects or for creating special scales. When connected to a MIDI sequencer, the JD-800 can perform complex multi-instrument arrangements. Level, Pan, Solo, Portamento and MIDI receive channel can be set individually for each Part, and the output of each Part can be assigned to the stereo Direct Out as well as the stereo Mix Out. These features allow the JD-800 to function as the core of an effective MIDI studio or performance setup.

Built-in effects offer quality surpassing dedicated units

The JD-800 features a variety of built-in digital effects that enhance sound creation possibilities.

Group A

Distortion	Seven selectable types provide a wide range of textures, from warm tube-like overdrive sounds to hard distortion.
Phaser	Manual, Rate, Depth, Resonance and Mix controls are provided for outstanding flexibility.
Spectrum	Spectrum is a band-pass filter that affects six frequencies, each with adjustable bandwidth, allowing users to distinctly tailor the overall tone of a Patch.
Enhancer	Enhancer accentuates brightness and clarity by processing only the harmonics of the sound.

Group B

Reverb	This fully-equipped reverb unit provides users with minute settings such as Pre Delay, Early Reflection and HF Damp. Reverb type can be chosen from various selections including Room, Hall and Gated Reverb.
Chorus	The Chorus effect features a variable delay time, so diverse effects ranging from doubling to flanger are available.
Delay	Delay includes Three-Tap Delay that allows sounds with different delay times to be localized at left, center and right. Maximum delay time is 600 ms.

Three-band parametric EQ

Flexible equalization is available in both Single and Multi modes, and various EQ settings can be stored to a Patch.

Mix Out Filter

The treble/mid/bass Mix Out Filter is located just before the Mix Out, enabling tonal adjustment of the overall sound prior to final output.

In Single mode, a total of seven effects from Group A and B can be used simultaneously. Users can change the order of effects within the group and these settings can be stored to a Patch.

In Multi mode, users can select from Dry, Reverb, Delay + Reverb, and Chorus + Reverb for each Part.

Full MIDI capability makes the JD-800 a versatile master keyboard

With MIDI capabilities equalling those of dedicated MIDI keyboard controllers, the JD-800 provides comprehensive control of external MIDI sound sources in an extensive MIDI system. Separate MIDI parameters can be set for each Patch, such as MIDI transmit channel for upper and lower ranges of the keyboard, Program Change numbers and Whole/Dual/Split mode selection.

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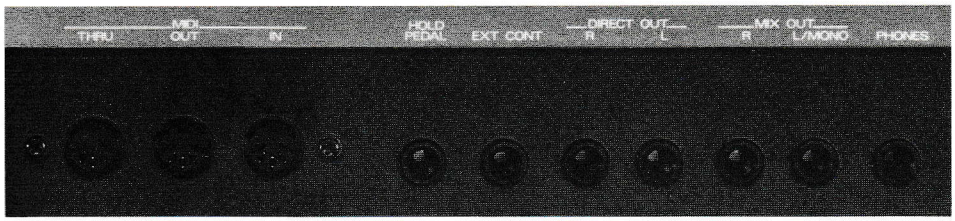
Specifications

- Keyboard ..... Weighted-synth 61-key, velocity and aftertouch sensitive
- Internal wave memory ..... 24 Mbit
- Maximum polyphony 24
- Memory capacity
  - Internal memory..... 64 Patches, 1 Special Part setup
  - Memory card (M-256E)..... 64 Patches, 1 Special Part setup
- Built-in effects..... Group A (Distortion, Phaser, Spectrum, Enhancer), Group B (Chorus, Delay, Reverb), 3-band EQ (High, Mid, Low), Mix Out Filter (Treble, Middle, Bass)
- Controls
  - Common ..... Hold Control (on/off), Velocity Curve (1/2/3/4)
  - LFO 1, 2..... Rate, Delay, Fade, Waveform, Offset (+/0/−), Key Trig (on/off)
  - Wave Generator..... Pitch Coarse, Pitch Fine, Pitch Randomize, Key Follow, Aftertouch Bend (on/off), Bender (on/off), Waveform, Source (internal/card), Aftertouch Modulation, LFO1, LFO2, Lever
  - Pitch Envelope..... Velocity, Time Velocity, Time Key Follow, L0, T1, L1, T2, T3, L2
  - TVF ..... Mode (HPF/BPF/LPF), Cutoff Frequency, Resonance, Envelope, Key Follow, LFO Select (LFO 1/2), LFO, Aftertouch
  - TVF Envelope..... Velocity, Time Velocity, Time Key Follow, T1, L1, T2, L2, T3, Sustain Level, T4, L4
  - TVA ..... Level, Bias Direction (upper/lower/upper-lower), Bias Point, Bias Level, Aftertouch, LFO Select (LFO 1/2), LFO
  - TVA Envelope..... Velocity, Time Velocity, Time Key Follow, T1, L1, T2, L2, T3, Sustain Level, T4
  - Palette ..... Tone A, B, C, D
  - System..... Mode (Single/Multi), Tune/Function, MIDI, Transpose
  - Multi Setup..... Part (◀, ▶), Part Edit, Special Setup, Effects
  - Patch ..... Layer (Tone A, B, C, D), Layer ◀▶ Active, Edit (Common, Effects), Solo, Portamento
  - Others..... Bender/Modulation lever, Value, Increment/yes, Decrement/no, Exit, Page (▲, ▼), Cursor (◀, ▶), Internal/Card, Bank (1—8), Number (1—8), Compare, Copy, Manual, Write, Data Transfer
- Displays ..... 8-segment LED × 2, 22-character × 2-line backlit LCD, 16-character × 2-line backlit LCD
- Jacks/Connectors..... Mix Out (L/mono, R), Direct Out (L, R), Phones, MIDI (In, Out, Thru), Hold Pedal In, Ext. Control In
- Dimensions..... 1040(W) × 420(D) × 108(H) mm ($40^{15}/_{16}$″ × $16^{9}/_{16}$″ × $4^{1}/_{4}$″)
- Weight..... 15.0 kg (33 lb 2 oz)
- Options ..... M-256E Memory Card
  SO-JD80 Series Waveform Cards
  DP-2/6 Pedal Switch
  EV-5/BOSS EV-10 Expression Pedal
  KS-5 Stand

**Specifications and appearance subject to change without notice.*



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