



64 Voice Expandable Stage and Studio Keyboard

From the moment you get a musical idea...until you've finished the final mix...the new ZR-76 has everything you need to write your next hit. The 76 weighted-action keys are perfectly matched to the 1200 incredible sounds inside. In fact, the included 16 meg Wave Expansion Board, *The Perfect Piano™* by William Coakley, sounds and feels so good, you may find yourself tickling the ivories into the wee hours of the night.

If you perform your music live, the ZR-76 has you covered, too. The "Favorites" buttons under the display give you instant access to the sounds you use most. An easy-to-use sequencer, built-in drum machine and a 24-bit effects processor completes the package.

The new ZR-76 is a keyboard that you would expect from ENSONIQ...refined and balanced, great-sounding and easy to use... all at a great price.

Over 1200 Sounds – From realistic instrument sounds to our unique second-generation *TransWaves*, from analog emulations to evocative digital timbres, plus over 70 drum kits, made up from more than 750 fully programmed drum elements.

Perfect Piano – The ZR-76 comes with our new EXP-4 ROM Expander installed. This 16 meg expander features William Coakley's acclaimed "*The Perfect Piano™*", along with two practically perfect electric pianos.

Idea Pad™ – Whenever you sit down and play, the ZR is recording your performance. If you like an idea you can send it to the 16 Track Recorder for further development.

Drum Machine – Our innovative drum machine is the perfect accompanist, with 8 fills and 8 variations per rhythm, extensive rhythm and drumkit editing, and seamless integration with the 16 Track Recorder.

SoundFinder™ – Makes locating sounds a breeze. The left knob selects the sound category, the right knob selects the individual sound. You can even use the ZR's keyboard to type in the first few characters of the sound name to instantly locate it.

16 Track Recorder – A powerful 16 track sequencer with advanced quantization options (featuring our exclusive *Delta Quantization™*), Song Editor, dedicated FX and Mixdown sections, MS-DOS-based disk format, and support for Standard MIDI Files.

24-Bit Effects – Featuring our powerful 24-bit ESP-2 digital signal processor. You also get 6 stereo busses, including 3 global reverb busses, a chorus bus, a dry stereo bus, and an insert effect bus with 40 great-sounding algorithms.



ENSONIQ™

1600 Green Hills Rd., Ste. 101, Scotts Valley, CA 95067
Tel. 831.438.1921 www.emu-ensoniq.com

ZR-76 64 Voice Expandable Stage and Studio Keyboard

Keyboard

- 76 key (E-G) weighted-action keyboard with programmable velocity, release velocity, and channel pressure sensitivity
- 3 programmable keyboard zones for splits and layers

Controllers

- Programmable Pitch and Mod Wheels
- Up to 4 programmable foot switches (SW-2, SW-6, optional SW-10)
- Programmable Mod/Volume Pedal (optional CVP-1)

Output

- 44.1 kHz sample playback rate
- 18-bit D/A conversion with 108 dB dynamic range
- 103 dB signal-to-noise ratio
- 2 Hz -20 kHz frequency range

Inputs/Outputs

- Left/Mono and Right Main outputs (balanced TRS)
- Left/Mono and Right Aux outputs (balanced TRS)
- Stereo headphone output
- 1 Mod/Volume Pedal input, 2 single/dual foot switch inputs
- MIDI In/Out/Thru

Display/Interface

- 12 "Favorites" buttons giving instant access to the 18 sounds most used
- 40 (2 x 20) large character LCD display
- 4 knobs, 89 buttons (46 with LEDs), volume slider
- SoundFinder™/RhythmFinder™ interface – one knob selects sound/ rhythm type, another knob selects specific sound/rhythm. Sounds/ rhythms can be searched for alphabetically within musical categories, numerically within bank locations (ROM, RAM, Expansion Board, GM, User, Demo), or with keyboard spelling
- Onboard Help function

Internal Sound Memory

- 468 ROM sounds (2 banks of 128, 79 drum kits, 128 GM sounds, 11 GM/GS drum kits), 751 ROM drum elements
- Up to 256 RAM sounds possible (70 sounds shipped from factory)
- Installed EXP-4 Piano Expander with Steinway Grand and 2 Electric Pianos
- 52 ROM Presets

Wave Memory

- 112 Megabits (14 MB) of 16-bit internal wave ROM, and 16 MB EXP piano expander installed for a total of 30 MB wave ROM. Up to 4 MB additional flash memory for loading .WAV and .AIF sound files
- Over 5000 variations possible from the 424 waveform selections, including 28 Megabits (3.5 MB) of acoustic piano, multi-sampled acoustic instruments and synthesizers, second-generation Transwaves™ (created through digital synthesis and resynthesis technologies), sustained synth waveforms with harmonic and inharmonic structures
- Modulatable start point, forward or backward playback, and multi-sample key shift (4 modes) for most waves
- Pitched/non-pitched playback of all waves possible

Expansion Memory

- 3 expansion slots, for a total of up to 688 Megabits (86 MB) of ROM wave data
- A Wave Expansion board holds up to 192 Megabits (24 MB) wave data, multiple banks of sounds (up to 128 per bank), and demos
- A FLASH sample memory board provides 4 MB of re-writable FLASH ROM memory for loading .WAV, or .AIF sampled sounds
- Expansion boards are user-installable

Performance Features

- 12 "Favorites" buttons for instant access to 18 user programmable sounds
- Any footswitch can be programmed to select "next" or "previous" favorite sound, for hands-free sound selection live performance
- Dedicated Split and Layer buttons, with the ability to save up to 3 sound combinations as a new single sound (for sequencing split or layered sounds on a single track), or as a performance preset
- Each of the 3 zones can play local sounds or external MIDI sources
- Extensive sound "tweaking" (global editing) including:
 - Volume, Volume Polarity
 - Mix (Expression)
 - Pan
 - Effects Bus
 - Pitch Bend Up/Down
 - Envelope Velocity
 - Key Range Lo/Hi
 - Velocity Range Lo/Hi
 - Velocity Mode
 - Pressure Mode
 - Controller Filtering
 - Tuning (Octave, Amp & Filter Semitone, Fine)
 - Voice Architecture (accessible via computer)
 - Amp Envelope
 - Attack, Decay, Release
 - Filter Cutoff
 - Filter Envelope
 - Attack, Decay, Release
 - Pitch Table
 - Glide Mode, Glide Time
 - LFO/Noise Tempo Sync
 - LFO Rate
 - LFO Depth, Delay

- 64 dynamically assigned voices
- Dynamically sized voice architecture (up to 16 layers), with the following parameters (per layer):
 - Independent waveform selection
 - Volume and Pan
 - Layer delay up to 10 secs or by key-up trigger
 - 2 independent multi-mode dynamic digital filters (low-pass, high-pass, variable bandwidth band-pass) with key tracking (33 settings, including fractional scaling)
 - 3 five-stage envelope generators (time and level) with level and attack time modulatable by velocity (8 possible curves), key scaling, and response to release velocity
 - 22 modulation sources, 8 modulation destinations
 - 1 LFO (7 waveform choices), can sync to 16 Track Recorder, Drum Machine, or external MIDI clock (12 subdivisions)
 - Variable rate noise generator, can sync to 16 Track Recorder, Drum Machine, or external MIDI clock (12 subdivisions)
 - Octave, semi-tone and fine tuning
 - Pitch tracking (33 settings, including fractional scaling)
 - 45 ROM Pitch Tables (256 steps per semitone resolution)
 - 1 RAM location for receiving a pitch table sent from any device that supports the MIDI Tuning Standard (Bulk Tuning Dump and Single Note Tuning Change)
 - Key and velocity ranges
 - Voice trigger options (key-up or down, MIDI controller enable)
 - Glide mode, glide time
 - Mono/poly playback
 - Pitch Bend on/off, Held Pitch Bend mode (range is programmable for both positive and negative wheel directions)
 - Sustain on/off
 - Key group assignment
- Drum Kit architecture offers 64 keys (B1-D7): each key points to a fully-developed sound (up to 16 layers per key), plus effects bus, volume, pan, and tuning overrides.

Effects

- New VLSI 24-bit digital signal processor (ESP-2) with 26 MIPS of DSP power, 52-bit accumulation
- New UMTE (Universal Multi-Timbral Effects) architecture with 6 stereo busses:
 - 3 stereo busses with independent sends into global reverb
 - 1 stereo bus with a wet/dry mix into global chorus and a send into global reverb
 - 1 stereo bus with a wet/dry mix into an insert effect, a wet/dry mix into global chorus, and a send into global reverb
 - 1 dedicated stereo dry bus
- Dedicated buttons for global reverb, global chorus, insert effect, and FX bus routing
- 40 insert effect choices (dynamically modulatable by MIDI controllers)
- Effects can be routed to Main or Aux outputs

Idea Pad™

- Free-running sequencer that is always recording in the background, capturing whatever you play on the keyboard
- Divides up recordings into phrases based on selection of new sounds or pauses in your playing
- Any phrase can be sent to the onboard 16 Track Recorder for further development
- Also records the Drum Machine playback, to capture rhythm choice and Fill/Variation events, synchronized with keyboard performances
- Adjustable buffer size (16 or 31 Kbytes)

Drum Machine

- 119 onboard rhythms with 8 Variations and 8 Fills per rhythm, adjustable tempo (25-350), volume, and part muting
- Drum Kit zones (Kick, Snare, Hats, Cymbal, Toms, Perc1/2/3) can be edited to adjust Sound, Volume, Pan, FX Bus, Tuning
- New drum or percussion kits can be selected from ROM, RAM, or Wave Expansion boards
- Each Variation and Fill can be set to use pattern data from any other Rhythm (selectable per Zone)
- Rhythms can be sent to Track 10 in the 16 Track Recorder for synchronization with sequence data (links Drum Machine operations)
- New rhythms can be loaded from disk

16 Track Recorder

- 16 tracks, each with a complete set of track parameters (same as performance presets)
- Up to 64 internal voices per track, dynamically assigned (no limit on MIDI voices per track)
- Exclusive ENSONIQ Delta quantize will re-clock any performance to regular time so it can be used in a sequence
- 24 sequence per song structure (3 banks of 8 each, A-H)
- 231kBytes memory (Recorder and Idea Pad)
- 384 PPQ, synchronized to internal or MIDI clock source
- 5 real time record modes - Replace, Add, Step-Entry, Track Mix, and Final Mix

- Automated punch/edit/auto-locate regions remembered for each sequence
- Quantize from whole note to 1/64 triplet, normal or Delta quantization, strength, swing, random, shift, key range, window, quantize Note Offs, move Note Offs, user-definable templates
- Copy (with/without data), Erase (all, within region, data only) Track
- Copy (with/without data), Erase (all, outside region) Sequence
- Click/Countoff with selectable sound (click, vocal, both, stick), volume, pan, FX bus, timing (1/2 note to 1/32T), # of bars
- Tap Tempo control (25-350)
- Song Playlist allows creation of a song form quickly from the dedicated front-panel controls
- Dedicated Pan and Mix knobs, Track Mute and Solo buttons
- Final Mixdown of all tracks records continuous volume and tempo changes
- Step Entry Record with Auto Step, Gate Time and Gate Percentage
- MIDI-In Record to the sequencer
- 32 ROM Performance Presets

MIDI

- Supports Bank Select and Program Change reception/transmission
- Able to respond in Multi Mode on up to 16 polyphonic channels
- Responds to polyphonic pressure
- 4 system controllers (any of 120 MIDI controllers) can be used for voice or effects modulation, or transmitted via MIDI
- General MIDI compatible

Disk

- 1.4 MB High Density (HD) 3.5" floppy, MS-DOS compatible
- Loads and edits Standard MIDI Files Type 0 and Type 1; Saves Type 1
- Save All-Session (all FLASH & RAM), All-RAM (all songs, RAM sound bank, rhythm bank), 1-Song, All-Songs, 1-MIDIFile, Rhythm-Bank (loadable to FLASH or RAM), 1-Rhythm (loadable to FLASH or RAM), Sound-Bank (loadable to FLASH or RAM), 1-Sound (loadable to FLASH or RAM), Preset-Bank, 1-Preset

Standard Accessories

- ZRD-100 System Disk (contains sounds, rhythms, demos)
- Musician's Manual
- Detachable power cord
- SW-6 Single Damper Foot Switch

Optional Accessories

- EXP Series Wave Expansion boards
- FLASH Sample Memory Board (WAV and .AIF files)
- SW-10 Dual Damper Foot Switch – 2 pedal piano-type for sustain, sostenuto, sequencer control and other functions
- CVP-1 (CV Pedal) – for voice/FX modulation, volume control, or MIDI controller transmission
- Detachable MS-1 music stand

Physical

- Dimensions: 50 1/2" (128.27 cm) wide x 5" (12.7 cm) high x 15 5/8" (39.69 cm) deep
- Weight: 51 pounds (23.13 kilograms) unboxed, 63.9 pounds (29 kilograms) boxed

Limited Warranty

- One year, parts and labor

Prices and specifications subject to change without notice.

©1999, EMU- ENSONIQ, ENSONIQ®, the ENSONIQ logo, and ZR-76® are registered in the United States as indicated by ®, and in numerous other countries worldwide. All other trademarks are property of their respective owners

ENSONIQ™

1600 Green Hills Rd., Ste. 101, Scotts Valley, CA 95067
Tel. 831.438.1921 www.emu-ensoniq.com