

## **Enhanced SGX-2 Grand Piano Sound Engine with the addition of a premium Italian grand.**

The KRONOS piano engine has always offered the highest quality non-looped/natural decay stereo samples, recorded for every key, with additional unique tools to customize the piano to your needs. Inheriting all of this SGX-1 functionality, the new enhanced SGX-2 Grand Piano engine introduces the new Berlin Grand piano to the existing deep German Grand and lively Japanese Grand. The Berlin Grand offers resonant piano sound with a striking sense of depth. In addition to these three pianos, it is equipped with a gorgeous and transparent Italian Grand - four very different Grand Pianos to choose from.

Other enhancements to the SGX-2 engine included Sympathetic String Resonance and newly-recorded Una Corda (soft pedal – literally “one-string”) samples.

- *The newly added Italian Grand does not include the effects of Una Corda.*

### **Massive Sound Selection**

KRONOS comes equipped with thousands of sounds, created using various synthesis modes and calling upon over approximately 21 GB of preset waveform data covering a variety of genres. Each one has been carefully crafted by the KORG Sound Design team. The internal SSD offers a generous 62\*GB capacity, providing enormous space for user sampling or downloading additional KRONOS Sound Libraries. These optional KRONOS Sound Libraries add new professionally programmed sounds—without the need to add any new hardware.

Artist Signature Programs provide the priceless sounds actually used by top-ranking musicians. Additional Song Programs are named for the classic rock and pop songs whose signature keyboard sounds these programs recreate. Use these universally well-known sounds to pay homage to the originals, or as the basis for personal sonic explorations.

*\* SSD capacity is subject to change without notice.*

### **Nine Distinct Sound Engines**

Each of the individual KRONOS sound engines is eminently qualified to operate as a stand-alone synthesizer. And each one represents the cutting-edge technology available for that type of sound creation. Exacting programming parameters, real-time controllers, integrated effects, and assignable modulation routings provide incredible control to create custom edits or to empower the ambitious sound designer

### **Set List Mode**

KRONOS can organize all of the resources you need to get through a song—or a set—using the Set List mode. Using the Set List mode, the TouchView display can host 16 color-coded touch-screen buttons; each one can instantly call up the appropriate Preset, Combination, or Sequence—regardless of mode!

You can even add handy performance notes (“Sing on Chorus;” “Transpose Down;” “Wait for Sax Solo;” etc.) to each one.

The Set List mode adds a dedicated nine-band graphic EQ, allowing the overall tone to be tweaked to match the venue. Set List mode now allows for deeper customization with many slot color options, text size variations, and a full-screen text editor. Connecting a USB computer keyboard makes it simple to enter text and numeric values.

### **Color TouchView Display**

The nerve center of the KRONOS is KORG's enormous eight-inch (800 x 600 pixel) SVGA color TouchView display.

In addition to simply selecting a sound or choosing a parameter with the touch of a finger, the enhanced Touch-Drag ability allows more detailed control of parameter values. Interactive instruments and panel graphics provide the ability to do everything from adjusting the opening height of a grand piano lid to connecting patch cables on a semi-modular synthesizer model.

The TouchView display also hosts a convenient new Search Function, allowing you to search for (and preview) sounds based on their titles.

### **Sequencer Composition Tools**

In addition to MIDI and Audio tracks, the onboard sequencer is loaded with valuable tools to transform your musical ideas into a complete composition, using realtime and interactive techniques that are unavailable or cumbersome to use on a computer-based system.

#### **\*KARMA**

First appearing on KORG's Karma Music Workstation in 2001, this revolutionary algorithmic music technology instantly produces sophisticated phrases, drum grooves and full-blown backing tracks. Based on the notes and chords you play—and the intuitive operations you perform with the knobs, sliders, and switches—KARMA can create musical effects that exceed anything you imagined. Now in its greatly-enhanced second generation and offering features like KARMA Wave-Sequencing, Note Mapping and 8 scenes per layer, KARMA is standard equipment on your new KRONOS. It will expand your conception of a song, and will be an enormously inspiring creative asset for all composing.

#### **\*Drum Tracks**

Expanded for use in the KRONOS, Drum Tracks now includes professional drum performances, and generates grooves that capture the distinctive feel of a pro drummer, challenging the capabilities of stand-alone drum machines.

#### **\*Open Sampling System**

Using KORG's Open Sampling System, KRONOS can quickly sample an external audio source, regardless of whether KRONOS is in the Program, Combination, or Sequencer modes. The Open Sampling Mode can even resample the performance of the KRONOS itself. The user sample bank, which extends the convenience of the EXs sample library to user samples, allows custom samples to be loaded and played, taking advantage of the large SSD capacity.

AIFF, WAV, SoundFont 2.0, and AKAI S1000/3000 format samples can be loaded into memory via USB memory. Additionally, you can use a USB Ethernet adapter to exchange

large amounts of sample data with your computer at high speed. Instruments or samples that you've previously created on your PC can be used to construct a music production setup based on just the KRONOS.

### **16-Track MIDI Sequencer / 16-Track Audio Recorder**

KRONOS features a sequencer/recording section that offers both 16 MIDI tracks plus 16 audio tracks; a great resource for putting together a dazzling performance or a brilliant production. MIDI sequencing makes it easy to capture ideas, inspiration, and pro-quality phrases using the KARMA, Drum Track, or RPPR (Realtime Pattern Play/Recording) functions.

The 16-track audio recorder simultaneously captures up to four tracks of 16-bit/24-bit uncompressed data at a sampling rate of 48 kHz. Play along with recorded tracks, add effects, and then resample the KRONOS itself and place the resampled WAV files directly in a track. When polishing your tracks, feel free to use mixer automation and editing functions such as copy, paste, and normalize to get the results you want. Then you can assemble your album right from the TouchView display!

### **16 Onboard Effect Processors**

KRONOS provides 16 internal effects to add impact to your sonic creations. Each of the 12 Insert effects can be applied to individual or multiple timbres in a combination, or to individual or multiple tracks of the sequencer. In addition, two Master effects can be applied to sends 1/2, and two Total effects can be applied to all tracks at the final stage of the sound.

A separate three-band EQ is provided for every timbre, for every sequencer track, and for every audio track for adjusting subtle tonal balances or for creatively modifying the overall sound.

### **USB/MIDI Host Ports Accommodate MIDI Control Surfaces**

Any class-compliant USB-MIDI controller can be connected directly to the KRONOS. If you connect a KORG pad-equipped USB MIDI controller (nanoPAD, nanoPAD2, padKONTROL), pads 1 through 8 of the controller are automatically mapped to the virtual chord pad function of the KRONOS, allowing them to be used to play drums, trigger chords, or to switch chords in chord mode.

### **Smooth sound transitions that eliminate dropouts when changing sounds, regardless of the mode you're in**

When you switch program sounds during a performance to get ready for the next section, or when you switch from Program mode to Combi mode, the sound that's currently being output is always given priority and its effects are maintained during the program change, ensuring a seamless transition with no dropouts, something that has also earned extremely high praise from pro musicians.

### **Flagship RH3 Weighted Hammer Action**

Both the 88- and 73-key KRONOS models use KORG's finest RH-3 Real Weighted Hammer Action made in Japan. Offering an authentic and accurate piano feel, there are four zones, ranging from heavier to lighter, to provide a more true piano playing experience. Even the 88

key model is slim enough to place on a standard keyboard stand. The KRONOS achieves the perfect balance of functionality and design.

### **Natural Touch Semi-Weighted Action**

For those who prefer the ultra-quick response of a synthesizer keyboard, need to focus on organ performances, or are seeking the ultimate in portability, the KRONOS 61-key model is equipped with a lightweight and expressive semi-weighted synthesizer action with aftertouch.

### **Advanced Control Surface**

In addition to the parameters accessible directly from the TouchView display, KRONOS also offers a wealth of realtime controllers to enhance any performance and to aid navigation. A four-way joystick, ribbon controller, and two assignable switches are located to the left of the keyboard. An additional Vector joystick is ideally positioned for easy access.

Above the keyboard, nine sliders, eight knobs and a number of switches provide real-time interaction with features at the heart of the KRONOS' impressive sound. The damper pedal input jack supports half-damping, providing yet another level of piano realism. In addition to the damper pedal jack, there are also two assignable pedal inputs, one footpedal type and one footswitch style.

### **Nine Synthesizer Engines, United in One Instrument**

KRONOS harnesses nine distinct synthesizer/sound engines into a single, integrated musical instrument. Dynamic voice allocation and new technologies allow all sound engines to smoothly share a stable, enhanced hardware platform. The results are nothing less than spectacular.

### **SGX-2 (Premium Piano) Piano sound engine**

Choose your piano! In addition to the acclaimed German Grand and Japanese Grand provided in the SGX-1 engine, the enhanced KRONOS SGX-2 Premium Piano now includes the distinctive Berlin Grand **and New Italian Grand**. By adding the EXs12 Austrian Grand option (sold separately), KRONOS can offer access to the greatest names in the grand piano world. Un-looped stereo samples recorded for every key provide a natural, authentic decay. Improved 12-level velocity switching exceeds the previous 8-level data, and nuanced extras as pedal string resonance and una corda sample data help recreate the finer details of a grand piano performance.

#### **\*String resonance**

With the damper pedal depressed, all of the piano strings are free to resonate. When any key is played on the piano, other strings that are pitch-related to the original note may begin to vibrate via sympathetic resonance. The SGX-2 accurately captures and recreates this sympathetic string resonance, adding an additional level of detail to the grand piano sound.

\* String resonance overtones can be viewed in the string length edit screen.

#### **\*Una corda**

The pedal to the far left on a grand piano is the soft pedal. The technical name for this pedal is una corda which translates literally as "one string." Normally, the piano hammer strikes all of the strings tuned to a particular note, usually two or three. Pressing the Soft/Una Corda pedal shifts the entire piano action, so that the hammer hits only one string. The resulting

sound is lower in volume, and has a more muted tone. The SGX-2 Piano Engine contains una corda samples that can replicate this subtle shift in volume and tone to provide a faithful piano performance, complete with all pedal actions.

\*Una corda settings can be specified for the foot pedal (separately sold option) and in the screen. *The Italian Grand does not include the effects of the Una Corda.*

### **EP-1 (MDS Electric Piano) Electric piano sound engine**

The KRONOS EP-1 sound engine is dedicated to faithfully recreating six of the most popular classic electric pianos. And the Tine EP I Early has been newly added to the list. The MDS (Multi-Dimensional Synthesis) technology eliminates the transitions between velocity-switched samples, and does away with the unnatural behavior of looped samples. Smoothly responding to the nuances of the player's touch, yet allowing your performance to reach an energetic climax, this modelled engine features an astounding dynamic range that exceeds what one might expect from digital sound generation. For each of the six different models, different amps, cabinets, speakers, and standard vintage effects are realistically simulated. From the samples to the touch and the effects, all aspects affecting the sound are coordinated into a single package, making this the ultimate electric piano.

### **CX-3 Tonewheel organ sound engine**

The original KORG CX-3 combo organ went on sale in 1980. Loved by musicians around the world, this classic organ reappeared in 2000 using the latest technology. In KRONOS, the CX-3 engine precisely models this classic tonewheel instrument. Proprietary KORG technology has been used to perfectly reproduce the vacuum tube amp, and effects such as Vibrato/Chorus. Special attention was given to the rotary speaker effect, which lets you choose from seven types, as well as use the KRONOS' joystick in the **Y-axis** to control the speed. Even the instability, fold-back, leakage, and noise of the tonewheels have been obsessively analyzed and recreated. The organ sounds heard in legendary performances—some recreated here by the original artists—are now yours for the playing. Experience these classic organ sounds, reborn for the present day. In addition, the KRS-06 and 06B expansion libraries are included in the package and can be loaded and preloaded into the user area for use with a total of 256 programs.

### **HD-1 (High Definition Synthesizer) PCM sound engine**

HD stands for "High Definition" indicating the HD-1's superior sound, starting with KORG's proprietary low-aliasing sample playback oscillators, full-bandwidth multimode resonant filters, and extraordinarily fast & smooth envelopes and LFOs. The HD-1 is the most powerful PCM sound engine in KORG's history, into which KORG has poured all the PCM know-how accumulated since the M1. All of KORG's acclaimed PCM sounds are painstakingly created by specialized technicians. Data that was reluctantly omitted from previous models due to limited memory has now been called back into service on the KRONOS. The amount of waveform memory rivals a PC-based sound engine. Yet the real difference is in the completely different level of high quality audio finish that is obvious when you play these sounds as instruments on the KRONOS. The finest technicians, working on the finest platform, and aiming at the finest quality: that's the HD-1.

### **MS-20EX (Legacy Analog Collection) Analog modeling sound engine**

Packed with cutting-edge technology, KRONOS also respects the classics. The KORG MS-20 first appeared in 1978 and quickly captivated many synth fans with its rich personality

marked by thick and solid sound, aggressive filters, and patching capability that provided nearly infinite possibilities for creating sound. Using KORG's CMT (Component Modeling Technology) the MS-20EX faithfully reproduces the MS-20 while dramatically expanding its patch panel functionality. Modulate filters with audio-rate oscillators; turn audio inputs into control signals; control all of the original knobs with mod sources including additional envelopes, LFOs, and real-time controllers. It's a tweaker's dream. And of course, the KRONOS version offers serious polyphony.

### **PolysixEX (Legacy Analog Collection) Analog modeling sound engine**

The Polysix first appeared in 1981, offering six-voice polyphony and program memory. With its self-oscillating four-pole filter, smooth analog oscillator and sub-oscillator, plus a lush Chorus/Ensemble effect, the PolysixEX extends the abilities of the original in many creative ways. The strings and pads that were such a major feature of the Polysix will be invaluable when you need the sounds of the early '80s. The classic arpeggiator built into the original Polysix is also provided. As a bonus, it's also capable of extremely high polyphony.

### **AL-1 (Analog Synthesizer) High-fidelity analog modeling sound engine**

Feature-packed, the AL-1 is the same premium analog modeling sound engine that was first featured on the KORG OASYS, the Open Architecture Synthesis Studio back in 2005. Completely eliminating aliasing noise, and delivering the supple and fascinating sound of analog synthesis, this sound engine uses oscillator waveforms and filter morphing to generate new sounds that were unobtainable for analog synthesizers of the past.

### **MOD-7 (Waveshaping VPM Synthesizer) VPM/FM synthesis sound engine**

This sound engine uses VPM synthesis based on the VPM (Variable Phase Modulation) technology that powered two classic instruments, the Prophecy which appeared in 1995 and the Z1 which appeared in 1997 as a further evolution, and adds PCM sample playback, multi-mode filters, and external input to create a freely patchable semi-modular synthesizer. Combine Variable Phase Modulation (VPM) from KORG's classic Prophecy and Z1, add in some wave-shaping, a little ring modulation, mix in a few samples, and add subtractive synthesis, plus a modular patch-panel system, and you have the MOD-7. Exceptionally versatile, it offers everything from classic FM keyboards, bells and basses to rhythmic soundscapes and sparkling, epic pads, and includes the ability to import sounds from vintage DX synths.

### **STR-1 (Plucked Strings) Physical model sound engine**

Based on the physical modeling know-how KORG developed over the course of many years, this struck/plucked-string physical modeling sound engine takes advantage of KORG's cutting-edge modelling technology. This sound engine shines at producing sounds whose tone responds to your touch in ways that are difficult for a PCM sound engine to reproduce: acoustic guitar, electric guitar, harpsichord, clavinet, harp, bell, as well as ethnic instruments. It also goes much further, allowing you to synthesize and modify sounds that do not exist in reality. This is a sound engine of the future, one that allows the synthesizer programmer to construct truly new sounds.