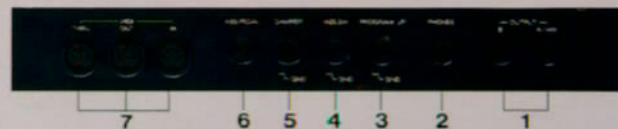## DS-8 Rear Panel Facilities

1 **OUTPUT:** Stereo outputs. Use A/MIX for mono.
2 **PHONES:** Headphone jack (for Korg KH-1000 or other stereo headphones).
3 **PROGRAM UP:** Input for optional footswitch (PS-1, etc.)
4 **ASS. SW:** Assignable switch input for footswitch (PS-1, etc.) used to control your choice of six functions: program down, oscillator select, velocity,

used to raise the selected program number.
multi-effects, after-touch, and portamento.
5 **DAMPER:** Input for damper pedal (DS-1, etc.).
6 **ASS. PEDAL:** Assignable input for expression pedal (EXP-2, etc.) used to control your choice of four functions: volume, timbre, pitch modulation, timbre modulation.
7 **MIDI:** For MIDI connections. Includes MIDI THRU for unaltered transfer of MIDI signals.
8 **ACV:** AC power cord connects here.
9 **POWER:** AC power On/off switch.

SPECIFICATIONS

●Keyboard: 61 keys (C–C), Initial Touch, Aftertouch ●Voice: 8 voices simultaneously (Single Mode) ●Program: DS-8: 100 Programs, 10 Combinations. MCR-01 RAM Card: 1 Bank (100 Programs, 10 Combinations). MCR-02 RAM Card: 2 Banks (200 Programs, 20 Combinations). MCR-03 RAM Card: 4 Banks (400 Programs, 40 Combinations) ●Function Mode: Master Tune, Transpose, Foot Switch Assign, Pedal Assign, MIDI Transmit/Receive Channel (1 ~ 16), Omni (Off/On), Local (Off/On), Active Sensing (Off/On), Program Change (Off/On), Control Change (Off/On), Exclusive (Off/On), Data Transfer ●Voice Parameter Mode: Pitch (OSC 1, OSC 2, Detune), Pitch EG (Start Level, Attack, Attack Level, Decay, Release, Release Level), OSC 1 Waveform (Type, Spectrum, Ring, Limit, Keyboard Track), OSC 2 Waveform (Type, Spectrum, Ring, Limit, Keyboard Track), OSC 1 Timbre EG (Timbre, EG Intensity, Attack, Decay, Sustain, Release, Keyboard Track), OSC 2 Timbre EG (Timbre, EG Intensity, Attack, Decay, Sustain, Release, Keyboard Track), OSC 1 Ampl. EG (Level, Attack, Decay, Sustain, Release, Keyboard Track), OSC 2 Ampl. EG (Level, Attack, Decay, Sustain, Release, Keyboard Track), Modulation Generator [Waveform (∧,∿,⊓,S/H), Frequency, Delay time, Pitch Intensity, Timbre/Ampl. Intensity, Timbre Select (Off, OSC 1, OSC 2, OSC 1+2), Ampl. Select (Off, OSC 1, OSC 2, OSC 1+2)], Portamento, Joystick, Velocity, Aftertouch, Assign Mode, Detune, Voice Name, Multi Effect [Mode (Manual Delay, Long Delay, Short Delay, Doubling, Flanger, Chorus), Time (approx. 0.04 ~ 850 ms), Feedback (± 100% MAX), Speed/Modulation Frequency, Modulation Intensity, Effect Level ●Combi Parameter Mode: Controller (Source, Group 1—8 Off/On), Modulation

Generator (Source, Group 1—8 Off/On), Multi Effect [Source, Mode (Manual Delay, Long Delay, Short Delay, Doubling, Flanger, Chorus; only when source is Combination)], Multi Effect In/Out, Interval/Detune, Key Split/Octave Shift, No. of Voices [Group 1—8 (max. 8 voices)], MIDI Receive Channel [Group 1—8 (MIDI Channel 1—16)], Pan [Group 1—8 (A, B, A+B)] ●Panel Mode Switches: Program, Combination, Function Mode, Voice Parameter Mode, Combi Parameter Mode ●Keyboard Mode Switches: Single, Layer, Double, Multi ●Programmer Controls: Numeric keys (0—9), Int, Ext, Cursor keys (◄, ►), Write, Compare, Value slider, Up/Yes, Down/No ●Performance Editor Controls: Timbre slider, EG1 slider, EG2 slider, OSC Select (1, 2, 1+2), Velocity (Off/On), Aftertouch (Off/On), Portamento (Off/On), Multi Effect (Off/On), Multi Effect Select ●Display: LCD (Liquid Crystal Display), Backlit, 40 Characters × 2 Rows ●Card Slot: 1 ●Input Jacks: Damper, Program Up, Assignable Pedal, Assignable Switch ●Output Jacks: Output (A/Mono, B), Phones ●MIDI Jacks: IN, OUT, THRU ●Power Consumption: 16W ●Power Supply: Local Voltage ●Weight: 10 kg ●Dimensions: 1,020 (W) × 317 (D) × 101 (H) mm ●Supplied Accessories: AC Power Cord, Connection Cable.

OPTIONS

☐HARD CASE HC-8　　　　　☐MEMORY CARD RAM MCR-02/03　☐FOOT CONTROLLER EXP-2
☐SOFT CASE SC-8　　　　　 ☐PEDAL SWITCH PS-1/PS-2　　　☐STAND ST-6
☐MEMORY CARD ROM DSC-01/02/03　☐DAMPER SWITCH DS-1　　☐MIDI CABLE 7m/10m/12m

HC-8 HARD CASE
SC-8 SOFT CASE
DSC-01 MEMORY CARD ROM
MCR-02 MEMORY CARD RAM

Produced by
Key Clique, Inc
Bo Tomlyn

128bits

PS-1 PEDAL SWITCH
PS-2 PEDAL SWITCH
DS-1 DAMPER SWITCH
EXP-2 FOOT CONTROLLER
ST-6 STAND

Volume and Expression Control In One Advanced Pedal. Greatly Enhances Live Performance. Can Control Timbre, Volume, and Other Aspects of Your Instrument's Sound.

SQ-8 Eight-Voice Sequencing with the DS-8
8 TRACK MULTI SEQUENCER

Astounding Multi-Channel MIDI Sequencer Performance in an Incredibly Compact Package. Operates with the Ease of a Multi-Track Tape Recorder.

●6,500 Note Capacity. ●Fast-Forward/Rewind by Bar. ●Start/Stop/Continue Functions. ●Metronome Function. ●Real Time or Step Time Input Modes. ●32-Note Polyphonic Storage and Playback. ●Repeat & Key Transpose Functions.

*Specifications and features are subject to change without notice for further improvement.
*Color reproduction in printed materials may differ from actual product appearance.

KORG

People and Technology in Harmony
KORG
DS-8
DIGITAL SYNTHESIZER
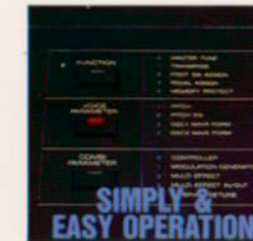
Eight Advantages
in Multi-Mode Digital Synthesizer Performance

2 DIGITAL OSCILLATORS
SIMPLY & EASY OPERATION
MULTI MODE
PERFORMANCE EDITOR
KEY VELOCITY & AFTER TOUCH
COMBINATION PROGRAM
MULTI EFFECT
ROM & RAM CARD
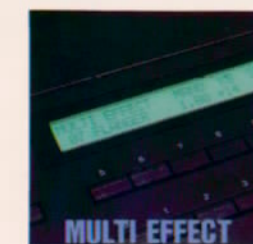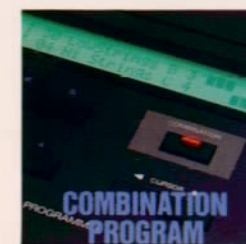
The Synth with the Talent to Match Your Creativity

Jam Packed with Performance. Jam Packed with Eight Giant Advantages over other Synths. When You Play the DS-8 You're Playing State-of-the-Art.

DS-8 DIGITAL SYNTHESIZER

Advantage 1 — Two Digital Oscillators

Layering, Cross Modulation, Digital Crispness with Analog Warmth. Not one but two newly developed digital oscillators. Two ways to be more creative. Use them as separate instrument timbres. Or thicken the sound with layers of related voices. You can even use one oscillator to modulate the other. This kind of cross modulation lets you generate exotic gongs and cymbals, howls of jungle beasts, and other real or surreal effects. You gain the crisp fidelity of digital synthesis without sacrificing the lushness and flexibility of analog. It's a musical potion that only Korg knows how to brew.

Advantage 2 — Easily Understandable Programming

Now it's Easy to Exercise Your Musical Intuition. Korg makes it easy for you to quickly take advantage of the DS-8's many features. You adjust the pitch, timbre, and volume changes for each oscillator as you would on an analog style synth, with the clarity of digital synths. It's completely straight forward, with none of the technical "computer programming" complexity of other digital synths. If you know the sound that you want, the DS-8 lets you go for it. It's fast because it's intuitive.

Advantage 3 — Multi Mode

Astounding Simultaneous Play of Eight Different Timbres. Under control of a multichannel MIDI sequencer like the ultra-compact

SQ-8 Sequencer Setup for Multi Mode Play

SQ-8	
TRACK	MIDI channel
1	1
2	2
3	3
4	4

↕ MIDI

DS-8			
Timbre	MIDI channel	Voices	Output channel
Strings	1	3	A+B
Brass	2	2	B
Bass	3	1	A
Percussion	4	1	A+
Piano	5	1	A+B

Korg SQ-8, the DS-8 can play up to eight different sounds at once. You could assign three voices for strings, two for brass, one for bass, and one for percussion. That leaves one voice for you to play along in real-time on the DS-8 keyboard. Each voice can be assigned independently for MIDI receive channel, multi-effects and output channel panning. This makes the DS-8 one of the most versatile synths that you can play on stage, and in the multi-track studio.

Advantage 4 — Performance Editor

Instant Response with Direct Adjustment and Selection. Now you can easily and quickly vary the most critical aspects of your sound in real-time. After all, a musical instrument should respond to your desires instantly—not force you to "reprogram" while you're playing. That's why Korg designed its unique Performance Editor section. With three sliders and six pushbuttons, you enjoy instant access to timbre and envelope shapes, oscillator selection, velocity and after-touch switching, portamento on/off, and choice of multi-effects. At last, there's a digital synth that lets you concentrate on and control the expressive nuances of your music in real time. (See figures 3 and 4)

Advantage 5 — Velocity & After Touch Sensitive Keyboard

Two Kinds of Touch Sensitivity, for Dynamic Control over Pitch, Timbre and Volume Modulation. With its newly designed weighted touch sensitive keyboard the DS-8 allows you to dynamically alter timbre and volume by how hard you play—like on an acoustic instrument. By pressing down still further you can access after-touch, for dynamic control over pitch modulation and the timbre and amplitude envelopes. Buttons in the Performance Editor section let you switch these effects on and off instantly, as you require them. Or use a foot switch for still greater hands-free playability.

Advantage 6 — Combination Programs

Instant Recall of Complete Combinations of Programs. The DS-8 features four keyboard modes—Single, Layered, Double (split), and Multi, the exciting new multi timbral mode. With Combination Programming, you can store all of the settings that make up a complex multi-timbral sound. In Double mode, this would include the program selection, the two keyboard split points and the panning assignments to the A and B outputs. For the Multi mode, it would include the MIDI receive channel, program selection, voice allocation and panning assignments for each voice. You can store and instantly retrieve up to ten of these combinations of timbres and other settings, all on-board the DS-8. What a boon for on-stage performance. External memory cards extend this capacity still further.

● LAYER mode

● DOUBLE mode

● MULTI mode

Advantage 7 — Multi Effects

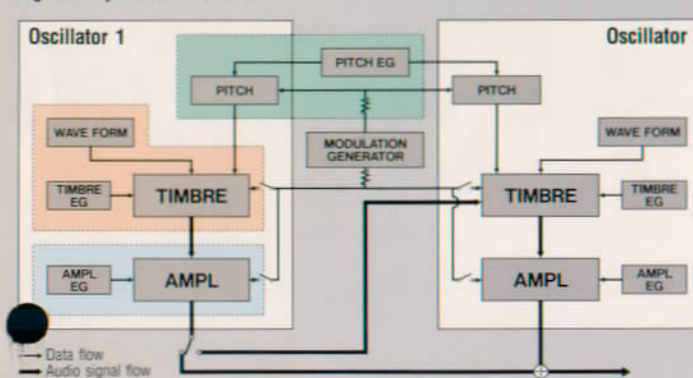**Built-in Multi-Effects Add Sweetening in Your Choice of Flavors.** The icing on the musical cake is Korg's programmable multi-effects—built right into the DS-8. Enhance your sound with customized flanging, chorusing, doubling, short, long and manual echoes. Store each timbre with its own dedicated effect, instantly retrievable from internal memory or RAM card. Freely vary each effect mode by adjusting its delay time, feedback, and modulation frequency. You can even change or drop effects in and out at the touch of the multi-effects buttons in the Performance Editor Section.

● Manual Delay

● Long Delay

● Flanger

● Chorus

Advantage 8 — ROM & RAM Cards

Up to 500 Sounds and 50 Combination Programs On-Line with RAM and ROM Card Options. With the DS-8, you're not limited to just the on-board 100-sound capacity. Optional ROM program cards available from Korg increase your musical palette by another 100 timbres. And optional RAM cards let you store and retrieve up to 400 of your own sounds, plus 40 combination programs. So a grand total of 500 sounds and 50 combination programs can be "on-line" for instant access. Just add more cards to expand your musical vocabulary, almost infinitely.

Figure 1: Synthesizer flow chart

→ Data flow
→ Audio signal flow

Figure 2: Waveform and timbre EG effect on sounds you hear.

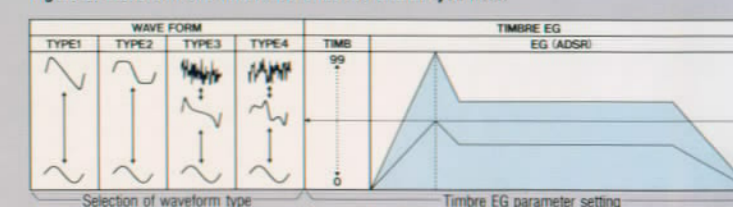Selection of waveform type · Timbre EG parameter setting

Figure 3: Effect of timbre slider on envelope

Contour ① results from the zero slider setting. Raising the slider produces contour ② for a brighter sound. Lowering the slider produces contour ③ for a softer sound.

Figure 4: Effect of EG-1 slider on envelope

Contour ① results from setting the EG-1 slider to zero. Raising the slider produces contour ② for a fast attack and quick release. Lowering the slider produces contour ③ for a long attack and slow release.

This section controls setting of basic pitch and pitch modulation using Pitch EG.
This section includes the waveform generator and timbre EG, allows selection of basic timbre and timbre modulation using separate timbre EGs.
This section allows setting of basic volume and modulation of volume using separate amplitude EGs.