KORG

THE KORG
PROFESSIONAL
PERFORMANCE
SERIES

PERFORMANCE SIGNAL PROCESSOR

A1

Flexible multi-effect processing with no compromises.

A New Standard. The A1 was designed to surpass the usual limitations of digital multi-effect processors. It is the first device of it's kind to provide users with exceptional processing power and virtually unlimited programming flexibility — without compromising the high quality of it's individual effects.

Creative Effects Flexibility. The A1 includes 59 different effects with a number of variations. These effects can be assigned in different orders within the 50 variable effect Chains, for a limitless number of creative recording, live sound and musical instrument processing options.

User-Compatibility. Designed for maximum ease of use, the A1 is based on the same quick, intuitive user interface as Korg's popular A3 processor. Effects Chains and parameters can be quickly and easily accessed and edited via the convenient front panel control layout and/or optional RE1 remote controller.

Sonic Integrity. The A1 incorporates the latest in digital processing technology to achieve truly superior sound quality. It combines the exceptional processing power of two high speed DSP chips with sophisticated A/D convertors, thus minimizing signal degradation and preserving the high order sonic integrity of the individual effects.

The MDE II DSP. Korg's new proprietary LSI.

Applications. A powerful processor for a variety of professional recording applications, the versatile A1 can also be used effectively in live sound applications, high-tech guitar racks and MIDI keyboard setups.

● Effects

The A1 has 59 types of effects with 103 variations for a greater number of creative options. Including everything from studio-quality Delays and Reverbs through Compressors, Gates and EQs to Pitch Shifting, Rotary Speaker effects and Tube Distortion Simulation, it provides effects for any application. It also offers unique effects not found anywhere else such as a Noise Generator integrated with Reverb processing and a Dynamic Delay effect controlled by the input signal. Each effect has been optimized for matchless sound quality, allowing effects to be used alone or as part of an effect Chain in combination with up to six other effects.

Reverb is an essential effect in professional recording studios. Consequently, the A1 offers 28 variations of Reverb. The Dynamic Reverb, for example, is ideal for processing drum sounds. In this effect it is possible to select a specific input level threshold where the reverb is triggered. A signal below the assigned threshold does not trigger the reverb effect. The inverse is also possible using the "Dynamic Polarity" parameter.

Unique A1 effects such as Tempo Delay and Dyna Pan® can be locked to MIDI clock, allowing delay time and panning to be synchronized with a song's tempo.

● Effects and Variations

NAME	SIZE	VARIATION
〈REVERB〉		
NO. 1 REVERB	1	RM1, HL1, PL1
NO. 2 REVERB	3	RM2-3, HL2-3, PL2-3, SPG1
NO. 3 REVERB	4	RM4-5, HL4-5, PL4-5, SPG2
NO. 4 DYNAMIC REVERB	2	DRV1-3
NO. 5 ECHOVERB	4	EVRB
NO. 6 MONO REVERB	5	MRV1-7
NO. 7 EARLY REFLECTION	2	ER1-4
NO. 8 EARLY REFLECTION	6	ER5-7
〈DELAY〉		
NO. 9 HOLD DELAY	1	HDLY
NO.10 LONG DELAY	5	LDLY
NO.11 TEMPO DELAY	5	TDLY
NO.12 DYNAMIC DELAY	7	DDLY
NO.13 SWEEP DELAY	7	SWD1-2
NO.14 STEREO DELAY	8	SDLY, XDLY
NO.15 MODULATION DELAY	8	MDLY
NO.16 MULTI TAP DELAY	8	MTDL
NO.17 DELAY	9	DLY
〈MODULATION〉		
NO.18 ROTARY SPEAKER	4	RSP1-2
NO.19 PITCH SHIFT MODULATION	6	PMOD
NO.20 MULTI TAP CHORUS	6	MTCH
NO.21 ENSEMBLE	6	ENS
NO.22 CHORUS/FLANGER	7	CHO, FLN
NO.23 PHASER	7	PHAS
NO.24 BI-PHASE MODULATION	7	BMOD
NO.25 PITCH SHIFTER	6	PTCH
NO.26 DETUNE	7	DTNE
NO.27 TREMOLO	8	TREM
〈DYNAMICS〉		
NO.28 STEREO LIMITER	5	SLM1-3
NO.29 COMPRESSOR	7	COMP
NO.30 LIMITER	7	LIMT
NO.31 TUBE SIMULATION	7	TSM1-2
NO.32 DISTORTION	7	DIST
〈FILTER〉		
NO.33 7BAND GRAPHIC EQUALIZER	3	GEQ1-4
NO.34 4BAND PARAMETRIC EQUALIZER	6	4BEQ
NO.35 3BAND PARAMETRIC EQUALIZER	7	3BEQ
NO.36 DUAL 2BAND EQUALIZER	7	D2EQ
NO.37 2BAND EQUALIZER	8	2BEQ
NO.38 DUAL 1BAND PARAMETRIC EQUALIZER	8	DEQL, DEQM, DEQH
NO.39 1BAND PARAMETRIC EQUALIZER	9	PEQL, PEQM, PEQH
NO.40 DYNAMIC EXCITER	8	DXIT
NO.41 EXCITER	9	ECIT
NO.42 STEREO EXCITER	9	SXIT
NO.43 AUTO WAH	6	AWAH
NO.44 PEDAL WAH	8	PWAH
NO.45 SPEAKER SIMULATION 1	2	SP1
NO.46 SPEAKER SIMULATION 2	4	SP2
〈GATE〉		
NO.47 GATE 1	5	GAT1
NO.48 GATE 2	5	GAT2
NO.49 GATE 3	7	GAT3
NO.50 NOISE GENERATOR	4	NG1-2
〈PAN〉		
NO.51 DYNA PAN	3	DPN1-2
NO.52 PAN	8	PAN1-2
NO.53 STEREO PAN	8	SPAN
NO.54 ENVELOPE SWITCH	7	ENVS
NO.55 INPUT SWITCH	9	INS
NO.56 VOLUME PEDAL	9	VOL
〈MIXER〉		
NO.57 4CHANNEL MIXER 1		MIX1
NO.58 4CHANNEL MIXER 2		MIX2
NO.59 SEND/RETURN MIXER		S/R

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● Comprehensive Control

The A1 is designed with a logical, intuitive user interface that, while allowing complete control of an extraordinary amount of processing power, does not get in the way of the creative process.

All Chains, effects parameters and other functions are displayed in the large, two line, 40 character LCD. Dual function knobs below the LCD make editing parameters a simple task. Additional dedicated keys for the A1's major operation modes are clearly labeled and include Edit Compare and Performance Editor functions for more "user friendly" control.

The optional RE1 Remote Editor provides even greater operational convenience for the user. The RE1 allows the A1's edit functions to be available from the user's listening position.

The optional FC6 Foot Controller allows program changes and effect on/off switching from the user's on stage position in live performance applications.

● Dynamic Modulation

For added expressive control, the A1 includes a Dynamic Modulation function that allows the user to control effect parameters in real time using pedals, MIDI data or input signal envelopes.

Some examples of Dynamic Modulation in the A1 factory programs are; using a MIDI keyboard's mod wheel to control Rotary Speaker speed or the Pedal Wah effect, using MIDI keyboard velocity to control the Dynamic Reverb input level or using a volume pedal to control pitch bending in the Pitch Shift effect.

The parameters of the Dynamic Modulation function include:

• Dynamic Parameter — Selects the effect parameter to be controlled. (e.g. LFO speed, input level, effect level, etc.)
• Dynamic Source — Selects the controller. (e.g. foot pedal, MIDI data, etc.)
• Dynamic Amount — Sets the amount and direction of the dynamic control.

● MIDI Control

In addition, with the ability to use MIDI Aftertouch, Velocity, Pitch Bend and control numbers 01-95 as Dynamic Sources to control A1 effect parameters, it is possible to record automated effect mixes and changes to a MIDI sequencer. In fact, all front panel buttons such as effect on/off or effect parameter changes can be recorded to a MIDI sequencer in real time directly from the A1.

● External Interface

The A1 is equipped with a variety of connectors to interface with other equipment. 1/4" audio inputs are found on the front (unbalanced) and rear (balanced) panels. Rear panel Audio outputs are provided in both XLR balanced and 1/4" unbalanced formats. It also has a Send/Receive loop for interfacing with external devices such as other effect units or guitar pre-amps. The EXT control output allows external devices such as guitar pre-amp channel switching to be controlled by A1 program changes or manually with a footswitch connected to the A1.

For digital audio signals, the A1 is also equipped with a SPDIF format digital I/O. This allows two A1's to be cascaded digitally or the connection of an A1 to an R-DAT machine or digital mixer, processing and transferring entirely in the digital domain.

● A1 — Creative Processing in the Real World

The creative power, speed and operational flexibility of the A1 truly come to the fore in a variety of real world processing situations. It provides users with an endless variety of processing options that sound great and are easy to control. Audition the A1 at an authorized Korg dealer and hear for yourself how good a multi-effect processor can sound.

• Effects Chains

The A1 frees the user from the limitations of working with specific orders of effects or fixed Chains created by the manufacturer. It's open-ended Chains allow up to seven effects to be assigned in a variety of different orders or connections. Included are Chains that connect effects in series, (one after another); in parallel for simultaneous processing; and in a dual configuration to process two signals independently. There are Chains that combine series and parallel combinations and even Chains that feature a key input for gating and compression effects.

Moreover, 59 effect types can be assigned to these Chains. The user can select normal effect combinations in series Chains or experiment with all of the various effects and Chains to create totally original, "customized" effects programs.

Ultimately, the A1 provides over 50 possible effect Chain variations that can be divided into the five major categories: Series, Parallel, Dual, Key-in and Send/Return.
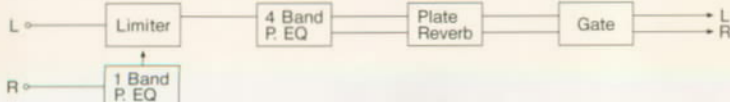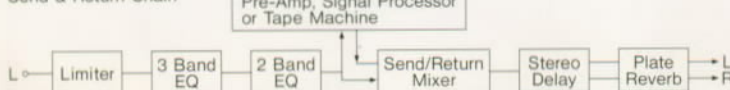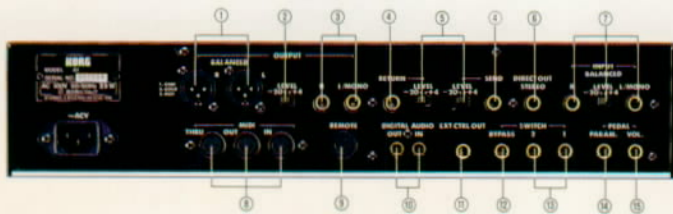
• Effects Programs

Up to 100 effects programs can be stored in the internal memory. The internal programs can be saved individually or in bulk to MIDI DATA FILERS or to removable RAM cards. Programs can be read directly from a ROM or RAM card inserted in the front panel card slot, making a total of 200 effect programs immediately accessible! The A1 also features a pre-loaded selection of 100 factory programs. Additional programs, written by professional musicians and engineers, will be available in the A1 ROM card library.

• A1 Chain Examples Chart

Series Chain
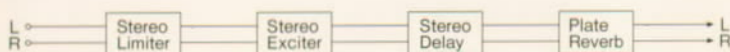
Parallel Chain
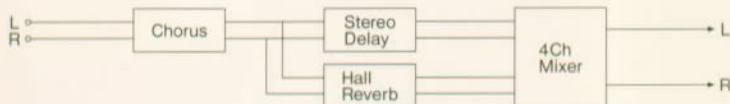
Dual Chain

Key-In Chain

Send & Return Chain

• A1 Factory Programs

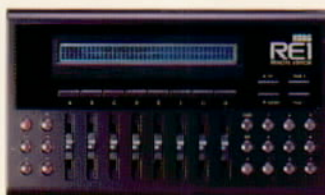| Reverbs	Vocal	Pitch Shifter
0 LARGE HALL	35 RECITAL HALL	67 ORCHESTRA
1 SMOOTH HALL	36 BALL COURT	68 EXAGGERATION
2 WARM HALL	37 SIBILANT REV	69 Major (DM)
3 E/R HALL	38 LATE PLATE	70 Major 6th (DM)
4 HUGE HALL	39 TEMPO PLATE	71 7th Chord (DM)
5 RICH PLATE	40 MOD ROOM	**Guitar (Direct In)**
6 BRIGHT PLATE	41 EMPTY ROOM	72 HI-GAIN
7 LIVE PLATE	42 WailWall	73 PEDAL DIST
8 LIMIT PLATE	43 LATE ROOM	74 POCKET DIST
9 GATED PLATE	44 ALCOVE	75 DRY VALVE 1
10 SMALL ROOM	45 TAP HALL	76 DRY VALVE 2
11 E/R ROOM	46 ALPINE ECHO1	77 STUDIO X
12 TILE ROOM	47 ALPINE ECHO2	78 STUDLY DIST
13 MEDIUM ROOM	48 DELAY GATE	79 4TH-UP DIST
14 WAREHOUSE	49 SEND TO TAPE	80 STEVE! WHY?
15 SLAP SPRING	**Drum**	81 BLUES VIBE
16 AMBI SPRING	50 AMBIENCE 1	82 small MIC Damp
17 BRIGHT SPRING	51 AMBIENCE 2	83 TREM-De'LUXE
18 ECHOVERB	52 KICK ROOM	84 ROTARY WAH
19 DYNAMIC REV	53 E/R KICK	85 SEMI-CLN MOD
Delays	54 CHINA SNARE	86 Pitch Mod + Dly
20 DYNAMIC DLYS	**Key-In**	87 BRIGHT COMP
21 Multi Tap DLY	55 FREQLIM⋇KICK	88 SWING PHASE
22 1.34sec DELAY	56 SNAREXTRACT	89 North East GTR
23 SWEEP DELAYS	**Dual Processing**	90 OCEAN BLUE
24 HOLD DELAY	57 DUAL RM & HL	91 RIPPLE
Modulation and Pan	58 DUAL DLY & REV	**Bass (Direct In)**
25 GIANT CHORUS	59 DUAL Graph EQ	92 ACTIVE BASS
26 PARA CHORUS	**Dynamic Modulation**	93 WHANKADELIC
27 PARA FLANGE	60 MOD ⋇ WHL R.SP	94 8ve DOWN BASS
28 Cymbal FLANGE	61 MOD ⋇ WHL DDLY	**Mix (Direct In)**
29 FLANGE VERB	62 MOD ⋇ WHL WAH	95 RADIO MIX1
30 ENSEMBLE PAN	63 MOD ⋇ WHL PAN	96 RADIO MIX2
31 CROSS PAN	64 VELO ⋇ Dyna REV	97 LOUDNESS Rm
32 PHASER PAN	65 MIDI ⋇ Clk DLY	98 LOUDNESS Mix
33 4th BEAT PAN	66 MIDI ⋇ Clk PAN	99 A1 EXAMPLE
34 REV SWITCH		

1. Balanced XLR Outputs — Stereo output for connection to mixers, patch bays or directly to power amps. 2. Output Level Switch — Set to match the input level of the connected unit. 3. Unbalanced Outputs — 1/4" stereo outputs for connection to mixers, guitar amps, etc. 4. Send/Return (Input, Output) — When using an A1 Send/Return Chain, the processed signal is sent out to an external effect processor or guitar pre-amp via the Send jack and patched back in via the Return jack. 5. Send/Return Level Switches — Set to match the input and output level of the external unit. 6. Direct Out (Stereo) — Direct right and left output via a stereo jack. 7. Inputs (R, L/Mono) — Balanced via a 1/4" tip/ring/sleeve phone jack. 8. MIDI (IN, OUT, THRU) — For connection to MIDI controllers, keyboards or sequencers. 9. Remote Jack — Allows connection of the optional RE1 Remote Controller or FC6 Foot Controller. 10. Digital Audio (In/Out) — SPDIF format digital I/O port allows connection of the A1 to R-DAT, digital mixer, another A1 or digital device with a 48kHz sampling rate. 11. EXT Control Out — Connects to a footswitch input jack on an external processor or guitar amp/pre-amp. The A1 can control (latching type) channel switching or effect bypass of an external unit. 12. Bypass — Connects to a PS-1 footswitch and controls Global Bypass on/off. 13. Footswitch (1, 2) — Connects to a PS-2 footswitch and allows the user to control A1 functions selected in the Utility Mode. 14. Parameter Pedal — Connects to the output of the KVP-001 Volume Pedal and controls Dynamic Modulation effect parameters. 15. Volume Pedal — Connects to the output of the KVP-001 Volume Pedal.

SPECIFICATIONS

● Input Level/Impedance: Left, Right Inputs — Front: +4 dBm (+19 dBm max.)/1 MΩ, −20 dBm (+19 dBm max.)/1 MΩ; Rear: +4 dBm (+19 dBm max.)/10 kΩ, −20 dBm (+19 dBm max.)/10 kΩ; Return Input: +4 dBm (+19 dBm max.)/100 kΩ, −20 dBm (+19 dBm max.)/100 kΩ ● Output Level/Impedance: Left, Right Outputs: +4 dBm (+19 dBm max.)/600 Ω, −20 dBm (−5 dBm max.)/600 Ω; Send Output: +4 dBm (+19 dBm max.)/600 Ω, −20 dBm (−5 dBm max.)/600 Ω; Direct Output (Stereo): Input Gain Unity/2.2 kΩ ● A/D, D/A Conversion: 16-bit Linear ● Sampling Frequency: 48 kHz ● Frequency Characteristics: 20 Hz − 20 kHz (+1.5/−3 dB) ● Dynamic range: Greater than 85 dB ● Memory: Internal 100 Programs, plus 100 Programs in Memory Card ● Built-in Effects: 59 groups ● Display: LCD 40 characters x 2 lines (backlit) 7 segment LED x 2 ● Terminals: Input Terminals (R, L/MONO x 2, Front, Rear); Output Terminals (R, L/MONO); Balanced Output Terminals (R, L); Send/Return Terminal; Direct Out Stereo Terminal; MIDI Terminals (IN, OUT, THRU); Remote Terminal, Digital Audio Terminal (IN, OUT compatible with *CP 340 TYPE II, sampling frequency of 48 kHz only); EXT Control Output Terminal; Bypass Terminal; Switch Terminal (1, 2); Parameter Pedal Input Terminal; Volume Pedal Input Terminal; Headphone Terminal ● Power Supply: AC, Local Voltage ● Power Consumption: 25W ● Dimensions: 430(W) x 407.8(D) x 88(H)mm ● Weight: 6.3 kg ● ACCESSORIES: Rackmount adaptors, AC power cord, Function label, Program internal preload data card (SPC-0A1)
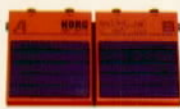
OPTIONS

● REMOTE EDITOR RE1
Remote control of all A1 functions. Easy operation with slider controls and ten key pads.

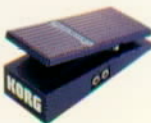● FOOT CONTROLLER FC6
Foot control for the A1.

● FOOT SWITCH PS-1/PS-2

PS-2

● VOLUME PEDAL KVP-001

● MEMORY CARD RAM MCR-03

● HARD CASE HC-2U

● HEADPHONE KH-1000

● MEMORY CARD ROM APC-SERIES
● SYNC/MIDI CABLE 1.5m/3m/5m/1m+0.5m

[KORG PERFORMANCE SIGNAL PROCESSOR A-SERIES]

A2 PERFORMANCE SIGNAL PROCESSOR

102 effects and 97 chains. A multi-effect unit for every possible sound enhancement application.

A3 PERFORMANCE SIGNAL PROCESSOR

This versatile multi-effect unit has 41 effects and 20 different chains. It also allows you, through the use of ROM cards, to load additional effects and chains as desired.

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

KORG

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