THE KORG
PROFESSIONAL
PERFORMANCE
SERIES

A3

PERFORMANCE SIGNAL PROCESSOR

KORG
MUSIC POWER

In order to extract a variety of sounds from one instrument, modern recording studios employ a complex combination of many effect units. Today, effect units are no longer secondary devices but are essential instruments in their own right, necessary for the creation of sounds. Although a full rack of effect units and compact effect pedal boxes can reproduce nearly any studio effect, it is impossible to instantly switch among different effect settings with them. Some multi-effect devices are currently available in answer to this need, yet the performance of individual effects suffers when using several different effects simultaneously. This is the reason that KORG has developed a true multi-effect device, the A3 Performance Signal Processor.

41 DIFFERENT TYPES OF DYNAMIC EFFECTS AND A SPECIAL SELECTION OF 20 SEPARATE EFFECT CHAINS

The A3 is equipped with 41 effect types including reverb, delay, exciter, distortion, chorus and a rotary speaker effect. It also has specially designed effect patterns which allow simultaneous use of a maximum of 6 of these effects connected together. The effect combinations are known as effect "chaine" and 20 of the most essential and commonly used chains have been specially programmed to the internal preset memory of the A3. With them, an extremely wide range of effects from standard settings to special effects can be created easily. And since the A3 has 200 memory locations (100 in internal and 100 in memory card), effect chains, as well as the individual effects and their parameter values can be memorized for instant recall. This represents a revolutionary leap forward from the capabilities of previous effect devices, making it possible to instantly set up the most complicated combination of effects simply by selecting the appropriate program. Now, combinations of effects that could only be realized in studio situations are instantly available for live performance as well.

EFFECT VARIATIONS

EFFECT GROUP	EFFECT TYPE
COMP	COMPRESSOR
DIST	DISTORTION 1
	DISTORTION 2
	OVERDRIVE 1
	OVERDRIVE 2
EQ	3 BAND EQUALIZER
XCITE	EXCITER
PITCH	PITCH SHIFTER
S.SIM	SPEAKER SIMULATION 1
	SPEAKER SIMULATION 2
	SPEAKER SIMULATION 3
MOD	STEREO CHORUS 1
	STEREO CHORUS 2
	STEREO FLANGER 1
	STEREO FLANGER 2
ENS	ENSEMBLE
A.PAN	AUTO PAN 1
	AUTO PAN 2
PHASE	PHASER 1
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EFFECT GROUP	EFFECT TYPE
R.SPK	ROTARY SPEAKER
DELAY	DELAY 1 (LONG DELAY)
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S.DLY	STEREO DELAY
	CROSS DELAY
M.DLY	MODULATION DELAY 1
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REV	ROOM 1
	ROOM 2
	HALL 1
	HALL 2
	PLATE 1
	PLATE 2
GATE	GATE
PAN	PEDAL PAN
WAH	PEDAL WAH
E.REF	EARLY REFLECTION 1
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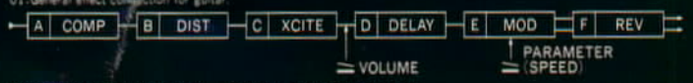
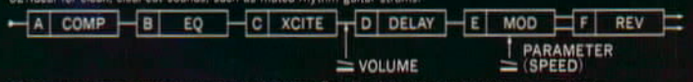
Examples of effect chains which have rich variations.

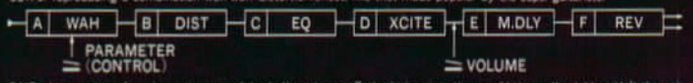
01: General effect connection for guitar.



02: Ideal for clean, clear-cut sounds, such as muted rhythm guitar strums.



03: For reproducing a combination wah-wah distortion effect, like that made popular by the super guitarists.



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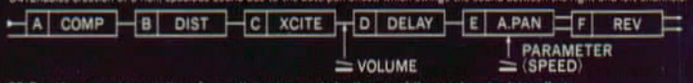
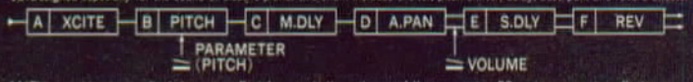
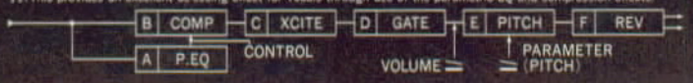


08: Provides accurate recreation of acoustic environments by the use of the speaker simulator effect.

10: Designed especially for the sound of electric piano, this chain includes exciter, pitch shifter, delay, auto pan, and reverb effects.



11: This provides an excellent de-essing effect for vocals through use of the parametric EQ and compression effects.



15: Reproduces the hard rock organ sound by applying distortion and the rotary speaker effect.

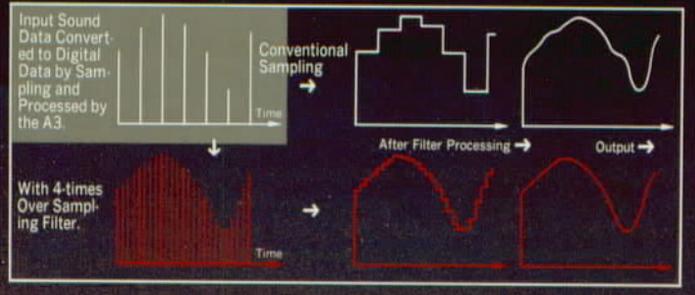
EXPANSION OF EFFECTS WITH CARD MEMORY

Up until now, effect devices — even ones with so-called multi-effect capabilities — allowed you to select from only those effects which were already built into them. In other words, the effect creation potential of these devices were limited from the beginning. With the A3, however, you can add new effects and multiple effect chains from a continuously available series of ROM cards. It's like getting a completely new effect device each time you load effects from the ROM card. Depending on your needs, just one A3 can instantly assume a wide variety of different signal processing roles, from applications for guitar or studio to outlandishly wild sound effects. This is the first effect device in the world to feature ongoing effect expandability for keeping up with the ever-changing variety of signal processing.

UNCOMPROMISING SOUND QUALITY WITH DIGITAL FILTERING TECHNOLOGY

A multi-effect signal processor is only as good as its sound quality. The A3 and its unique effect combination architecture was designed around the specially developed DSP (Digital Signal Processor), which ensures perfect preservation of the original sound quality by using complete digital processing of the sound, from input to output. This eliminates the signal degradation that normally occurs when connecting several effect units together, particularly that of multiple A/D and D/A conversions. As a result, the output sound is every bit as clear and clean as the original. Sampling noise, which occurs in the higher frequencies, has also been greatly reduced by application of a 4-times over sampling digital filter for optimum sound quality. KORG engineers have succeeded in improving the sound quality by decreasing the exceptional burden that is placed on the filter in cutting out unwanted frequencies, and at the same time by substantially decreasing the drop out of group delay characteristics in the high frequency range.

Let's take a closer look at the 4-times over sampling filter and see how this is accomplished. As shown in the figure below, it is difficult to reproduce the original sound waveform simply by applying the filtering process to the normal sampled data, and the result is that the waveform is altered compared to the original sound. The A3, therefore, continuously monitors the amount of data discrepancy and recreates waveform data by calculation and, in effect, smoothly redraws the original waveform. This effectively increases the actual sampling frequency to four times the normal value (or 148.4 kHz), and eliminates strain in filter processing while removing sampling noise (shown as steps in the figure) caused during the process. What this all means for you is high quality sound reproduction, faithful to that of the original input signal.



UNPRECEDENTED EASE OF OPERATION

Program change, effect ON/OFF, effect volume as well as the parameter settings of individual effects can be controlled in real time by connecting the optionally available FC6 Foot Controller. Checking settings and editing parameters has been vastly simplified by the inclusion of double function editors, which employ both rotary and push button operation, and a large LCD, which displays all pertinent parameter values. The Performance Editor function makes it possible to control the parameters of multiple effects simultaneously for easy real time editing of complex effect chains. For rack mount convenience, it features input terminals on both rear and front panels, with front panel input priority.

TRUE MULTI-EFFECT PERFORMANCE IN A SINGLE PACKAGE

A3
PERFORMANCE SIGNAL PROCESSOR

REAR PANEL

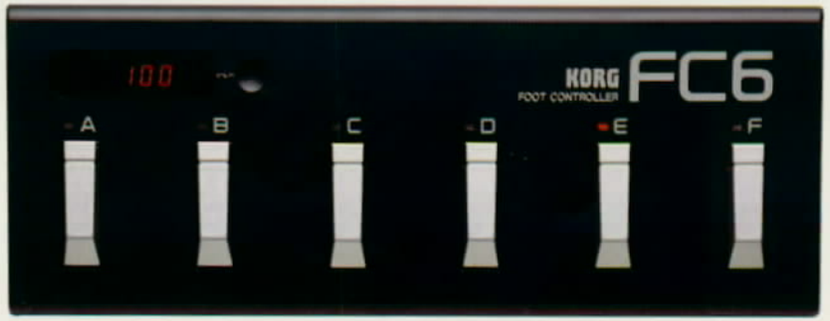
① REMOTE IN terminal : For connection of optional foot controller. ② MIDI terminal : For connection with MIDI instruments. Transmitting and receiving program changes and exclusive messages are possible. OUT/THRU toggle switch is also provided. ③ PEDAL/SW terminal : For connection to footswitch and volume pedal; used to control the A3 in various ways. ④ OUTPUT terminals : A3 is equipped with stereo outputs. ⑤ LEVEL Switch : For controlling the input level according to the connected instrument. The −20dB setting is for keyboards and guitars, and +4dB is for professional audio equipment. ⑥ DIRECT OUT terminal : For direct connection to the input signal. This can be used for connecting a tuner. ⑦ INPUT terminal : For connection with instruments, such as guitars or keyboards and effect sends from mixing consoles or amplifiers.

SPECIFICATIONS

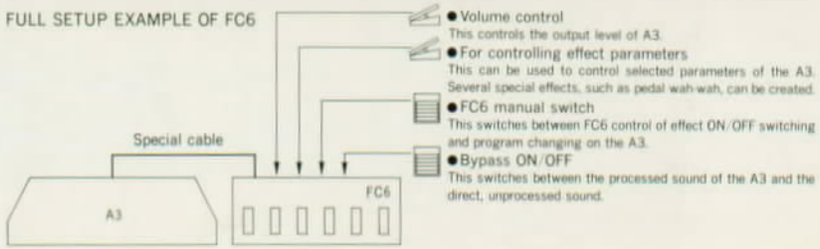
● Input level/ impedance: +4dBm/1M Ω, −20dBm ● Output level/impedance: +4dBm/600 Ω, −20dBm/600 Ω ● A/D, D/A : 16-bit linear ● Sampling frequency : 37.1 kHz ● Frequency characteristics: 20Hz - 18kHz +1.5/−3 dB ● Dynamic range: 90dB (IHF - A) ● Internal memory 100 programs + memory card 100 programs ● Internal effects: reverb group, compressor group, distortion/overdrive group, delay group, stereo delay group, modulation delay group, phaser group, stereo tremolo group, exciter group, ensemble group, rotary speaker group, 3 band EQ group, speaker simulation group, pedal pan group, gate group, pedal wah group, early reflection group, etc. ● Display: 40-character back-lit LCD × 1, LED 7 segments × 3, 5-character level meter ● Terminals: input terminal × 2 (front and rear), output terminal × 2 (L, R), direct out terminal, pedal switch terminal × 2, MIDI IN, OUT/THRU, REMOTE IN ● Power: Local voltage ● Power consumption: 22W ● Weight: 4.5 kg (9 lbs., 14 oz.) ● Size: 482 (W) × 332.5 (D) × 44 (H)mm (19" × 13-1/8" × 1-3/4")

FOOT CONTROLLER FC6

Foot-controlled program changes and effect ON/OFF switching can be performed by connecting the optionally available FC6 Foot Controller. It is also possible to send volume information to the A3 by connecting up to 2 volume pedals directly to the FC6. Effect parameters such as wah-wah, panning and pitch shift can be changed continuously by use of volume pedals, further expanding the performance potential of the A3. ● Size: 440 (W) × 160 (D) × 43 (H) mm (17-5/16" × 6-5/16" × 1-11/16") ● Weight: 1.4 kg (3 lbs., 1 oz.) (including batteries)



FULL SETUP EXAMPLE OF FC6



● Volume control
This controls the output level of A3.

● For controlling effect parameters
This can be used to control selected parameters of the A3. Several special effects, such as pedal wah-wah, can be created.

● FC6 manual switch
This switches between FC6 control of effect ON/OFF switching and program changing on the A3.

● Bypass ON/OFF
This switches between the processed sound of the A3 and the direct, unprocessed sound.

OPTIONS

● PS-1 PEDAL SWITCH ● PS-2 PEDAL SWITCH ● KVP-001 VOLUME PEDAL ● RAMCARD MCR-03 ● ROMCARD SPC-01, SPC-02 ● HEADPHONE KH-1000 ● A3+FC6 HARD CASE HC-X ● A3 LIGHT BAG LB-60

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KORG
MUSIC POWER

KORG INC. 15-12, Shimotakaido 1-Chome, Suginami-ku, Tokyo Japan.

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PITCH	PITCH SHIFTER
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S.DLY	STEREO DELAY
	CROSS DELAY
M.DLY	MODULATION DELAY 1
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REV	ROOM 1
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PAN	PEDAL PAN
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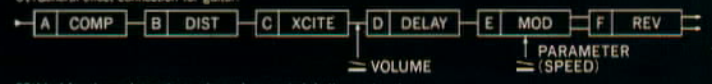

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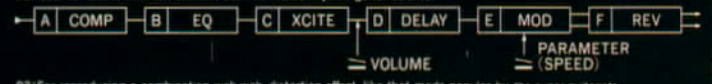

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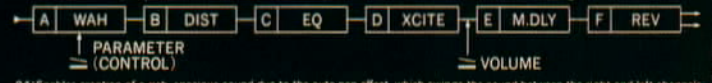

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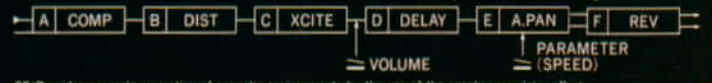

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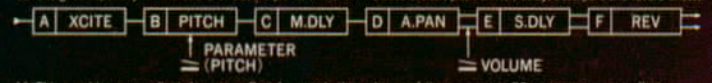

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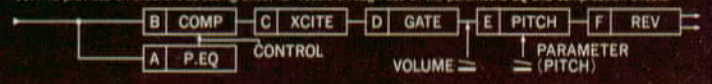

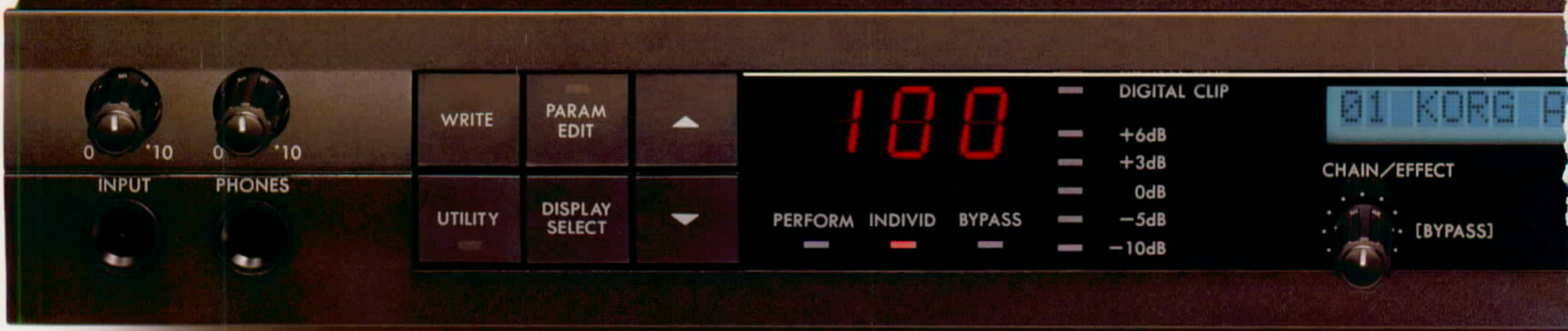

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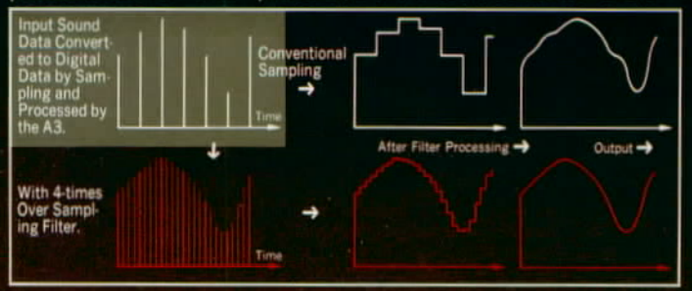

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SPECIFICATIONS

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FOOT CONTROLLER FC6

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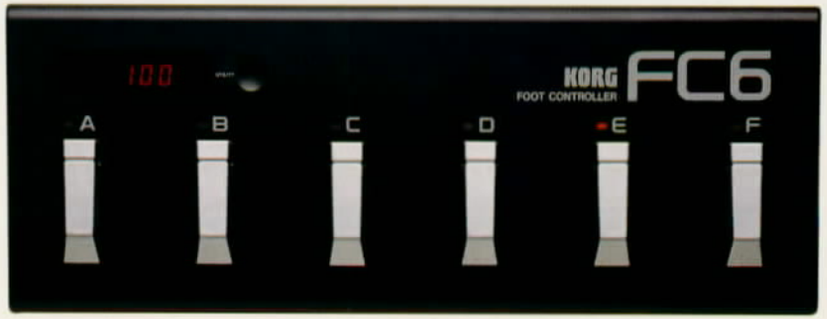
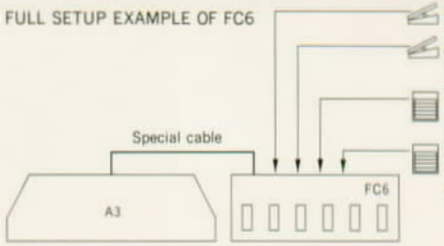


FULL SETUP EXAMPLE OF FC6



● Volume control
This controls the output level of A3.

● For controlling effect parameters
This can be used to control selected parameters of the A3. Several special effects, such as pedal wah-wah, can be created.

● FC6 manual switch
This switches between FC6 control of effect ON/OFF switching and program changing on the A3.

● Bypass ON/OFF
This switches between the processed sound of the A3 and the direct, unprocessed sound.

OPTIONS

● PS-1 PEDAL SWITCH ● PS-2 PEDAL SWITCH ● KVP-001 VOLUME PEDAL ● RAMCARD MCR-03 ● ROMCARD SPC-01, SPC-02 ● HEADPHONE KH-1000 ● A3+FC6 HARD CASE HC-X ● A3 LIGHT BAG LB-60

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