

Nanopiano

REFERENCE MANUAL

by Connor Freff Cochran

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Your Shipping Carton Should Contain The Following Items:

NanoPiano
AC power adapter
1 rackmounting screw
Alesis warranty card
Reference Manual
Program Chart

If anything is missing, please contact your dealer or Alesis immediately.

PLEASE NOTE: The warranty card is important. Really. Don't just throw it away. We'll be able to take better care of you now, and serve you better in the future, if you fill it out and send it in.

Alesis Contact Info

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WELCOME!

Back in 1979 my band's keyboard player and I went on a quest to find the Perfect Stage Piano. There was a shiny new Yamaha Grand in the recording studio where we were working, but for live performances we needed something (a) portable, and (b) affordable. We also wanted it to (c) sound great, since we loved the music we were making and wanted audiences to hear it at its best. With these three goals in mind we set off searching through the music stores of New York City.

What did we find? Disappointment.

Keep in mind that these were the “pre-everything” days — pre-MIDI, pre-sampling, pre-digital synths. The “piano” keyboards that were any good cost at least five thousand dollars, and were so heavy it would take three roadies to haul them on and off stage. The keyboards that cost less — a mere two grand — sounded bad. The ones that were truly portable got that way by physically chopping off all but the middle octaves, drastically limiting what you could play. And *none* of these instruments had more than one sound.

I will not mention what we wound up buying. Suffice to say that for quite a while afterwards we felt weighted down, poorer, and deeply compromised.

But time and technology have marched on, and happier days are here. Today I am no longer stuck with an expensive, limited, quasi-piano behemoth. I have a NanoPiano instead.

Portable? Pick yours up and see. At not quite 1.25 pounds, I bet you could shot-put it over the roof of your high-school gymnasium. I have a friend who carries his to the studio in a fanny pack.

Affordable? Oh yeah. (But *you* know that, or you wouldn't be reading this.)

Great sounding? Absolutely. Inside this little box are 256 of the most musical programs you'll ever find in one instrument. The centerpiece, of course, is the true stereo, phase-accurate grand piano. But the goodie list doesn't stop there. In addition you will find lots of useful alternate grand pianos, plus spinets, electric pianos, clavinetts, strings, synth pads, vocal pads, organs, combinations, splits, and more, all constructed from linear, non-compressed 48kHz 16-bit samples that are stored in eight megabytes of on-board ROM.

And while I'm grinning, let me also mention some other things I particularly appreciate about the unit — like 64 voices of polyphony, the same built-in multieffects chip that Alesis uses in their Q2 pro-class signal processor, complete MIDI control, and incredibly simple operation.

Not bad, eh?

The bottom line is that the NanoPiano is deceptive. It looks small and simple, and it is. But it is also a serious power tool for all players, from the touring professional to the stay-at-home hobbyist. Gold and platinum records have been made using the sounds inside this box. Now you have them, too, for next-to-no cost and zero hassle.

I really like the NanoPiano, and with good reason: I'm having a blast with mine. I wish you lots of happy music-making with yours.

Connor Freff Cochran
April 1997

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WELCOME!

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0: We Interrupt The Manual In Progress For Some Stuff You Might Not Feel Like Reading, But Which Has To Be Here Anyway

Important Safety Instructions
Instructions To The User
CE Declaration of Conformity

Many of you — no, let's be honest, most of you — are going to skip over this section.

That's probably okay, assuming you've had prior experience with audio gear and electronic instruments. This is basic stuff that you most likely already know. Feel free to leap to the next section (CONNECTIONS) and begin hooking up and playing your new NanoPiano.

Beginners, however, are strongly advised to read the **Important Safety Instructions**. A little basic knowledge is a good thing.

Important Safety Instructions

WARNING — When using your NanoPiano, certain precautions should always be followed, such as:

- 1) Read all the instructions first.
- 2) Do not use your NanoPiano near water. Why? Water is a terrific conductor of electricity. You risk damaging your NanoPiano and shocking yourself if you use it near things like bathtubs, washbowls, and kitchen sinks, or in wet basements or around swimming pools.
- 3) Your NanoPiano doesn't make any sound by itself — no built-in speakers — but *be careful* when you are setting the volume levels of anything you plug it into. If your amplifier, headphones, or speakers are set too loud, then you could produce sound levels capable of causing permanent hearing loss. That's "permanent" as in "forever," which is definitely not something you want. So be cautious. Don't play your NanoPiano for long periods of time at uncomfortably high volume levels. And if you ever experience any hearing loss or ringing in your ears, consult an audiologist immediately.
- 4) Don't put your NanoPiano on or near any radiators, heat registers, or other strong heat sources.
- 5) The "wall-wart" AC power supply for your NanoPiano should be unplugged from the outlet whenever the unit is going to go unused for a long period of time.
- 6) Be careful that you don't drop things on, or spill liquids into, your NanoPiano.
- 7) If for any reason your NanoPiano is damaged, or stops working, don't try to fix it yourself. All repairs should be handled by Alesis-qualified service personnel. If the store where you bought your NanoPiano can't help, contact Alesis directly for the name and number of the authorized service location nearest you.

Instructions To The User

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- _ Reorient or relocate the receiving antenna.
- _ Increase the separation between the equipment and receiver.
- _ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- _ Consult the dealer or an experienced radio/TV technician for help.

This equipment has been verified to comply with the limits for a class B computing device, pursuant to FCC Rules. In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of manufacturer could void the user's authority to operate this equipment.

CE Compliance

1: CONNECTIONS

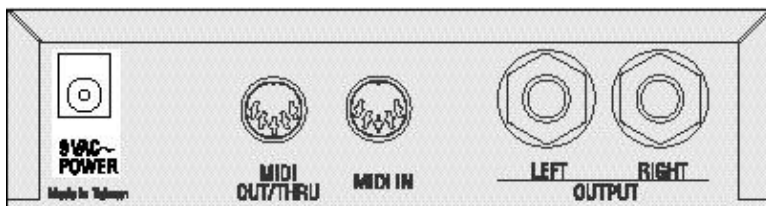
Power
Audio
MIDI
Rackmounting

In this section, I'll show you how to put it all together.

TIP: Don't discard your NanoPiano box and packing materials. Instead, tuck them away someplace safe (they won't take up much room). In the unlikely event that you need to return your unit to your dealer or to Alesis for servicing, they'll come in handy.

Power

Included with your NanoPiano is a “wall-wart” style power adapter which is already set for the voltage of the country your unit was shipped to. Connecting it is simple: just insert the prongs on the wall-wart end into an electrical outlet, and the single plug on the adapter end into the 9VAC~ POWER jack on the NanoPiano’s back panel.



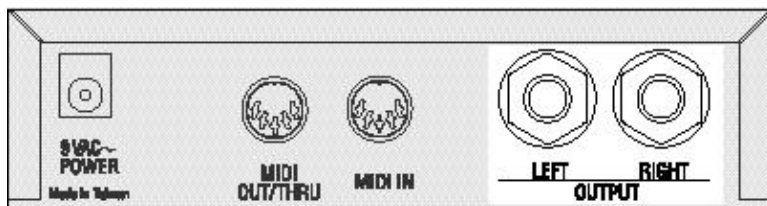
That’s all it takes. Be aware, though, that there is no ON/OFF switch on the NanoPiano. Whenever it is plugged into an active outlet, the unit is on. (To check this, look at the POWER indicator LED on the front panel. It will glow whenever your NanoPiano is getting electricity.)

Leaving your NanoPiano on all the time won’t hurt it. You won’t use up much electricity, either, since the NanoPiano operates on a miniscule amount of power.

If you’d prefer to turn the unit off when you aren’t working with it, instead of leaving it on, there’s a simple solution. Plug the unit into a power strip with a built-in ON/OFF switch, and use the power strip switch to turn off the juice when required.

Audio

There are two quarter-inch audio output jacks on the back of the NanoPiano. One of them is marked LEFT and the other is marked RIGHT. To get set up for audio, just run mono audio cables from these outputs to the corresponding LEFT and RIGHT input jacks on your mixer, amplifier, power amp, or powered speakers.



In a pinch you can get by with hooking up only one of the audio outputs, but I don't recommend it. If you do that you'll be missing out on half the true-stereo sound in each program, not to mention big chunks of stereo reverb and effects. If only one audio jack is in use, then the NanoPiano automatically sums its output signal to mono.

And besides — with all the money you saved buying the NanoPiano in the first place, you really ought to be able to afford two audio cables (preferably good ones).

TIPS:

Here are some things to avoid when working with audio cables. You experienced folks should check these out, too, instead of rushing ahead, because this is an area where you may know less than you think you do. (I can't begin to tell you how many supposedly "professional" musicians and recording engineers I've seen break the following rules, to their very real regret.)

- Do NOT bundle audio cables and AC power cords together. The field from the alternating current in the power cord will

leak through even well-shielded cables, inducing noise and distortion in your audio signal.

- Do NOT run audio cables near other sources of obvious electromagnetic interference such as monitors, computers, and power transformers (including the wall-wart end of the NanoPiano's own AC adapter).
- Do NOT run audio cables where they can be stepped on or tripped over. Falling and hurting yourself is an obvious danger, of course. Less obvious is the invisible damage done to the cable itself. Every time you step on a cable you compress the insulation between center conductor and the shield, degrading performance and reducing the cable's reliability. You may not notice a problem right away, but eventually you will.
- Do NOT twist the cable if you can possibly avoid it, or force it to make sharp right angle turns. Doing these things will damage the insides of the cable even faster than stepping on them.
- NEVER unplug a cable by pulling on the cable itself. This puts a dangerous strain on the soldered connections between the cable and the plug, and can easily make a cable go bad (or at least intermittent) on you. The proper way to take a plug out of a jack is the same way you put it in — with a firm grasp on the body of the plug itself.
- ALWAYS keep your plugs and jacks clean and unoxidized. Occasional use of solvent cleaners like Tweek and Cramolin, which are available at any electronics shop, can greatly improve the electrical contact between your connectors.

MIDI

Ten years ago MIDI was still a strange new thing to most musicians and computer users. Not any more, so I'll keep this part short.

The basics: MIDI stands for Musical Instrument Digital Interface, which is a 16-channel serial data exchange and control system for musical devices. MIDI works by supplying a way for the microprocessors in your various electronic musical devices to pass messages back and forth over a special network of cables. These cables, which are used only for MIDI data and nothing else, plug into special five-pin DIN jacks which are typically labeled IN, OUT, and THRU. The IN jack receives MIDI data. The OUT jack transmits it. And the THRU jack automatically echoes and re-transmits whatever data is being received at the IN jack (this last function has a special use I'll get to in a minute).

One of the important things to remember about MIDI is that data flow is strictly one-way. Make sure you always plug the OUT jack of one instrument into the IN jack of another, and vice-versa. The other choices — OUT to OUT, or IN to IN — won't work.

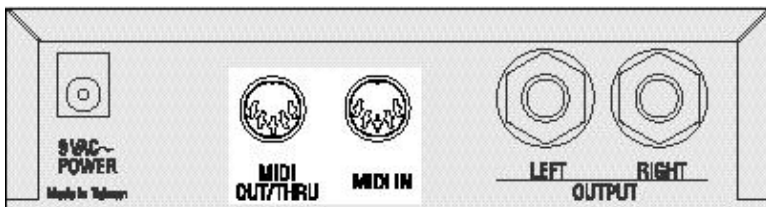
If you'll look on the back of your NanoPiano you'll see that it doesn't have an IN, and OUT, and a THRU. Instead it has an IN and a combined OUT/THRU. There are good reasons for this: (1) the NanoPiano doesn't have a built-in keyboard or anything else to play, so it doesn't really need an OUT jack; (2) combining OUT and THRU jacks saves a little on the cost, bringing the unit's price down; and (3) it makes the back panel less crowded.

How should you hook your NanoPiano into your MIDI system? That depends on how you intend to use it.

AS A SINGLE SLAVE (the IN Jack)

To play your NanoPiano directly from any MIDI source — keyboard, drum pads, woodwind controller, guitar controller, computer, etc. — just run a MIDI cable from the MIDI OUT of the controlling device to the MIDI IN jack on the back of the NanoPiano. Then turn the NanoPiano's MIDI CHANNEL knob to the same MIDI channel (from 1-16) that the controlling instrument is transmitting on.

PLEASE NOTE: This is important to remember. The NanoPiano can only respond to one MIDI channel at a time. If it is set to receive on MIDI channel 2, for example, it will ignore MIDI messages coming in over channel 1, or channels 3-16.

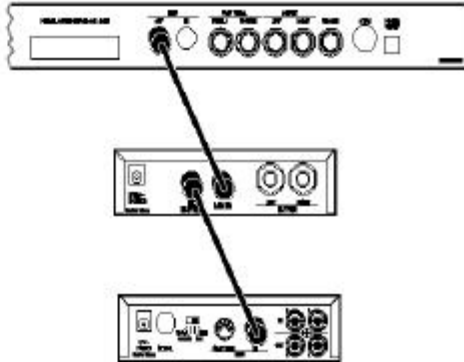


To make sure the NanoPiano is receiving data, play the controlling instrument while watching the MIDI indicator LED on the NanoPiano's front panel. If everything is set properly, the LED should light up. If you don't see the light, double-check your cable connections and MIDI channel settings.

AS PART OF A DAISY-CHAIN (the OUT Jack, Part 1)

When you want to control several MIDI devices at the same time, there are two ways to do it. The first is to buy a MIDI interface with multiple OUTs, and then run separate MIDI cables from this interface to all the different devices. This is called a “star” network and it is the preferable way to go, if you can afford it.

The second way is to “daisy-chain” several units together.



A daisy-chain is where the OUT/THRU jack on the NanoPiano comes into use. After connecting the controller's OUT to the NanoPiano's IN, you'd continue the chain by running a MIDI cable from the NanoPiano's OUT/THRU to the next instrument's IN jack, then another cable from that instrument's THRU to the next instrument's IN, and so on down the line until you were finished. Now when you play your controller, each device will respond to the MIDI data and "pass it on down" the line.

PLEASE NOTE: As a general rule of thumb, daisy chains should be no longer than three instruments in a row. Any more than that and you risk accumulating data transmission errors that could cause stuck notes, unexpected program changes, and inaccurate control.

In really big MIDI setups, you might find yourself combining a basic star network with selected short daisy-chains, usually of instruments which you either can't (or don't want to) edit with your computer. Which brings us to...

LIMITED COMPUTER EDITING (The OUT Jack, Pt. 2)

The NanoPiano's 256 programs are stored on the circuitboard as EPROM data, and can't be changed. You can still use a computer, though, to edit one program at a time.

Here's the trick. If you connect your computer's MIDI OUT to the NanoPiano's MIDI IN, and the NanoPiano's OUT to the computer's IN, then you can use a commercial librarian/editor program (such as Mark of the Unicorn's Unisyn) to edit the contents of the NanoPiano's edit buffer. This would allow you, for example, to change the samples in a program, pick a new LFO waveform, adjust its attack envelope, radically alter its effects settings, and so forth. Then you could save this new program in your computer and download it into the NanoPiano's edit buffer any time you wanted.

What you *can't* do is permanently store this changed sound in the NanoPiano itself, because the unit has no battery-backed RAM. Whatever editing you did would vanish when you turned the unit's power off.

Rackmounting

Your NanoPiano will sit happily on any flat surface, and thanks to its four rubber feet it won't slide around too much. But if you are interested in a more secure and permanent installation, then rackmounting is the way to go.

On the underside of your unit you will find a mounting nut already built into the box. This nut is positioned so it will line up with the hole in most standard rack-mount adapters for one-third-rack sized products. Simply place the NanoPiano on the adapter tray, line up the mounting nut with the hole in the adapter, and screw the unit into place using the mounting screw that came with your NanoPiano at purchase.

Your local music store can certainly supply you with an adapter that will work to mount your NanoPiano into a rack. Ask for a single-space rack shelf, rack tray, or universal rack adapter, and make sure it has pre-drilled holes in the bottom that match up with the NanoPiano's mounting nut.

2: INSTANT FUN

Demo Sequence Playing It Yourself

Once you're set up, this section will show you the two quickest ways to explore the programs in your NanoPiano.

Demo Sequence

Built into your NanoPiano is a musical demo — Chopin's C-Sharp Minor Waltz.

To run it:

- 1) Make sure your audio is hooked up and the power on.
- 2) Set the CHANNEL, CATEGORY, and PROGRAM knobs straight up, to the “twelve o'clock” position.
- 3) Set the EFFECTS knob all the way counter-clockwise. Then...
- 4) Turn EFFECTS all the way to the right in one quick turn.

At this point the MIDI indicator LED will turn on, and you will hear the TrueStereo piano program begin to play the Chopin waltz. (The reason the indicator light is flashing is because the demo is playing from MIDI data stored in the NanoPiano ROM.)

To shut the demo off, either turn the EFFECTS knob all the way to the left again in one quick turn, or turn the unit's power off.

Having an on-board sequence like this is useful in two different ways.

First, it allows you to check your NanoPiano at any time in order to make sure it's working. Second, it provides an easy way to hear the unit's 256 different programs.

Give it a try! Start the sequence going, then step through all 16 different PROGRAM knob settings, listening to the 16 different programs grouped together under the ACOUSTIC PIANO category. When you're done with that, turn the CATEGORY knob to PIANO & STRINGS and go through the 16 different PROGRAM settings that you'll find there. And when you're done with that, go ahead and experiment with turning the CATEGORY and PROGRAM knobs at will.

Of course, some programs — especially the ones in the EFFECT category — will sound pretty strange playing a Chopin waltz. But hey, it's the '90s...and since I doubt we'll be hearing any complaints from Chopin's lawyers, go have a blast.

Playing It Yourself

That's what you bought it for, isn't it?

Go right ahead, then. Double-check all the necessary connections — power, audio, MIDI — and start playing! When you get tired of a particular program, just use the CATEGORY and PROGRAM knobs to shift to something new.

3: GET TO KNOW YOUR NANO

The Specs

The Front

The Back

The Programs and ROM sounds

In this section I'll quickly step you through the basic features, specs, and controls of the NanoPiano. You'll also find a reference section listing all 80 sounds in the on-board ROM and all 256 programs (with room to take some notes of your own).

The Specs

Sound Generation Method: sample playback 16 bit Linear 48kHz Sample ROM

Synthesis: QS Composite Synthesis™

Voices: 64, each with sweepable lowpass filter, 3 envelope generators, 3 LFOs, programmable effects send and QS Modulation Matrix, dynamic voice allocation

Available Waveform Memory: 8 Megabytes

Program Memory: 256 presets

Effects: QS Parallel Matrix Effects™ (4 independent stereo multieffect processing busses)

MIDI Connections: MIDI In, MIDI Out/Thru

Audio Outputs: Stereo Left and Right outputs

Power Requirements: 9 VAC, 5 Volt Amps external Transformer, UL and CSA Approved

Dimensions: (WxHxD) 5.5" x 1.5" x 4.5"

Weight: 1.25 lbs.

What They Mean When They Say “64 Voices”

Once upon a time it was simple. A “voice,” in synth parlance, meant a single note of polyphony. A five voice instrument like the Sequential Circuits Prophet 5™ could play five simultaneous notes. A 16 voice instrument like the Yamaha DX7™ could play 16 notes. And so on.

Then things got complicated, when synth programmers got deep into digital design and figured out how to create even more complicated and interesting sonic textures by stacking voices together in combination. Suddenly the “number of voices = polyphony” equation didn’t directly apply anymore.

In one program on an instrument, for example, playing a single key might trigger a flute voice and a choir voice simultaneously: one note, two voices. Another program in the same instrument might stack another two voices into the mix: one note, four voices. If such an instrument had 16 voices to start with, playing just four notes would max it out.

It’s important for you to understand that interaction.

The NanoPiano is a 64-voice instrument. Some of its programs trigger only one voice per note played. With those programs, you’ll have 64 notes of available polyphony. Other programs trigger two voices per note, giving you 32 voices of available polyphony. Still others trigger four voices per note, allowing you 16 notes of polyphony.

This sounds more daunting than it actually is, thanks to another item you’ll find back there in the specs: Dynamic Allocation. In simplest terms, dynamic allocation is a very slick, very smart bit of software that keeps track of what you are playing and invisibly “steals” voices that are already sounding, in order to keep up as you play.

In a well-programmed instrument, dynamic allocation is so transparent a process you'll never notice it happening. And the NanoPiano is a *very* well-programmed instrument.

Here's a test that proves it.

Set the CATEGORY knob to ACOUSTIC PIANO and the PROGRAM knob to 1. Then turn the volume up, step on your controller keyboard's sustain pedal, and run your hand up the whole keyboard in one long *glissando*. Do NOT let go of the sustain pedal when you are finished. Instead, just listen to the lovely, long, naturally fading decay and see if you can tell how the NanoPiano is managing to sound like it has more voices than it actually has. I think you'll be pretty impressed.

The Front

The front of the NanoPiano has two indicator LEDs and five knobs. Taking them from left to right...

POWER: This indicator will glow whenever the NanoPiano is hooked up to a live electrical outlet.

MIDI: This indicator will flash whenever the NanoPiano is either receiving or sending MIDI data. (You'll notice that it lights up when the unit is playing its onboard demo sequence.)

VOLUME: This knob controls the stereo output volume. All the way to the left is off. All the way to the right is full on. For maximum audio quality I recommend turning the volume knob to full on, and lowering the NanoPiano's signal to proper levels at your mixer or amp input.

EFFECT: Although many NanoPiano programs have more than one effect built into them, each program has one *specific* effect that can be adjusted in real time from this knob. Turning it all the way to the left lowers the specified effect to nothing, while turning it all the way to the right takes the effect to its maximum programmed level. (The other effects in any given program are also adjustable, but only via MIDI.)

CHANNEL: This knob sets which MIDI channel the NanoPiano will respond to, from 1 to 16. (It also has an impact on the function of the MIDI indicator LED, which will only flash if there is MIDI data coming in over the selected channel. Data coming in over other channels will be ignored.)

CATEGORY: This knob has no printed name on the front panel — there wasn't room — but its function should be rapidly apparent once you start playing around with it. The 256 programs in the NanoPiano are organized in 16 sets of 16 programs each. This is the knob you turn to select which set the PROGRAM knob will be selecting from.

PROGRAM: You'll turn this one a lot. It selects which program in a given category will play in response to incoming MIDI data.

The Back

The back of the NanoPiano has five connectors: one for power, two for MIDI, and two for audio.

POWER: This jack supplies electricity to the NanoPiano through the 9-volt AC adapter supplied by Alesis.

MIDI OUT/THRU: The only original MIDI messages sent out by this 5-pin DIN jack are certain responses to commands from an external source (sequencer, editor/librarian, etc.). At all other times what it does is automatically echo and re-transmit any MIDI data entering through the MIDI IN jack.

MIDI IN: This 5-pin DIN jack receives incoming MIDI data from external sources and controllers.

The Programs and ROM Sounds

On the following pages you will find reference charts for all 256 NanoPiano programs, organized by category. The chart shows the MIDI bank select command and MIDI program number for each program, its number on the front panel PROGRAM knob, and its name.

There is also a space for you to write in notes of your own regarding what you think of each sound, or any ideas you might have for using it.

Acoustic Piano

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	000	1	TrueStereo
0 or 1	001	2	TrueStr8va
0 or 1	002	3	TrueStr8vb
0 or 1	003	4	Velo Piano
0 or 1	004	5	DarkGrand1
0 or 1	005	6	DarkGrand2
0 or 1	006	7	DarkGrand3
0 or 1	007	8	DarkGrand4
0 or 1	008	9	Ballad Pno
0 or 1	019	10	Spinnet
0 or 1	010	11	BriteGrnd1
0 or 1	011	12	BriteGrnd2
0 or 1	012	13	Titanium88
0 or 1	013	14	Wire Piano
0 or 1	014	15	HousePiano
0 or 1	015	16	Player Pno

PROGRAM NAME	NOTES
TrueStereo	
TrueStr8va	
TrueStr8vb	
Velo Piano	
DarkGrand1	
DarkGrand2	
DarkGrand3	
DarkGrand4	
Ballad Pno	
Spinet	
BriteGrnd1	
BriteGrnd2	
Titanium88	
Wire Piano	
HousePiano	
Player Pno	

Piano & Strings

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	016	1	Pno&Strgs1
0 or 1	017	2	Pno&Strgs2
0 or 1	018	3	Pno&Strgs3
0 or 1	019	4	PianoMorph
0 or 1	020	5	Pno&BrtStr
0 or 1	021	6	BrtPno&Str
0 or 1	022	7	Egrnd&Strg
0 or 1	023	8	Pno&LoStrg
0 or 1	024	9	OctPno&Str
0 or 1	025	10	UprPno&Str
0 or 1	026	11	PnoStFlang
0 or 1	027	12	EgrnStFlng
0 or 1	028	13	PnoStakStr
0 or 1	029	14	SynPnoStrg
0 or 1	030	15	Tap&String
0 or 1	031	16	ShortyP&S

PROGRAM NAME	NOTES
Pno&Strgs1	
Pno&Strgs2	
Pno&Strgs3	
PianoMorph	
Pno&BrtStr	
BrtPno&Str	
Egrnd&Strg	
Pno&LoStrg	
OctPno&Str	
UprPno&Str	
PnoStFlang	
EgrnStFIng	
PnoStakStr	
SynPnoStrg	
Tap&String	
ShortyP&S	

Piano Layer

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	032	1	Hollywood
0 or 1	033	2	BalladKeys
0 or 1	034	3	PianoClav1
0 or 1	035	4	PianoClav2
0 or 1	036	5	PianoVibes
0 or 1	037	6	Perc Piano
0 or 1	038	7	Fantapiano
0 or 1	039	8	AlloyPiano
0 or 1	040	9	Piano&Org1
0 or 1	041	10	Piano&Org2
0 or 1	042	11	Piano&Org3
0 or 1	043	12	Piano&Pipe
0 or 1	044	13	PnoTriLayr
0 or 1	045	14	PnoSqrLayr
0 or 1	046	15	Hybridor
0 or 1	047	16	Airiano

PROGRAM NAME	NOTES
Hollywood	
BalladKeys	
PianoClav1	
PianoClav2	
PianoVibes	
Perc Piano	
Fantapiano	
AlloyPiano	
Piano&Org1	
Piano&Org2	
Piano&Org3	
Piano&Pipe	
PnoTriLayr	
PnoSqrLayr	
Hybridor	
Airiano	

Piano FX

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	048	1	Tori's Ice
0 or 1	049	2	Nickel Pno
0 or 1	050	3	Copper Pno
0 or 1	051	4	Iron Pno
0 or 1	052	5	TapKlavier
0 or 1	053	6	TapTheBox
0 or 1	054	7	DrkCavePno
0 or 1	055	8	SpinetRoom
0 or 1	056	9	Flangiano
0 or 1	057	10	LezlyPiano
0 or 1	058	11	5th Piano
0 or 1	059	12	Rave Knave
0 or 1	060	13	Staggered
0 or 1	061	14	Quickstep
0 or 1	062	15	Random Pno
0 or 1	063	16	Pianoscape

PROGRAM NAME	NOTES
Tori's Ice	
Nickel Pno	
Copper Pno	
Iron Pno	
TapKlavier	
TapTheBox	
DrkCavePno	
SpinetRoom	
Flangiano	
LezlyPiano	
5th Piano	
Rave Knave	
Staggered	
Quickstep	
Random Pno	
Pianoscape	

E. Piano

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	064	1	Rock Roads
0 or 1	065	2	Soft Roads
0 or 1	066	3	Suitcase
0 or 1	067	4	ClascWurly
0 or 1	068	5	DirtyWurly
0 or 1	069	6	Soft FM EP
0 or 1	070	7	Eep Iano
0 or 1	071	8	CrystlRoad
0 or 1	072	9	Wave Piano
0 or 1	073	10	NanoTines1
0 or 1	074	11	NanoTines2
0 or 1	075	12	WurlyRoadz
0 or 1	076	13	SuperRoadz
0 or 1	077	14	Whirl Lee
0 or 1	078	15	No Quarter
0 or 1	079	16	Crunchy EP

PROGRAM NAME	NOTES
Rock Roads	
Soft Roads	
Suitcase	
ClascWurly	
DirtyWurly	
Soft FM EP	
Eep Iano	
CrystlRoad	
Wave Piano	
NanoTines1	
NanoTines2	
WurlyRoadz	
SuperRoadz	
Whirl Lee	
No Quarter	
Crunchy EP	

EP Layer

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	080	1	EP&Strgs1
0 or 1	081	2	EP&Strgs2
0 or 1	082	3	EP & Vox 1
0 or 1	083	4	EP & Vox 2
0 or 1	084	5	EP & Vox 3
0 or 1	085	6	EP & Vox 4
0 or 1	086	7	WhirlStrng
0 or 1	087	8	Whirl Vox
0 or 1	088	9	Dyno 5 Vox
0 or 1	089	10	EP & Organ
0 or 1	090	11	EP & Saw
0 or 1	091	12	EP & Pad
0 or 1	092	13	DigiEP&Syn
0 or 1	093	14	Roads&Syn
0 or 1	094	15	Richman
0 or 1	095	16	Dyna5Strgs

PROGRAM NAME	NOTES
EP&Strgs1	
EP&Strgs2	
EP & Vox 1	
EP & Vox 2	
EP & Vox 3	
EP & Vox 4	
WhirlStrng	
Whirl Vox	
Dyno 5 Vox	
EP & Organ	
EP & Saw	
EP & Pad	
DigiEP&Syn	
Roads&Syn	
Richman	
Dyna5Strgs	

Chromatic

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	096	1	Real Clav
0 or 1	097	2	Obligaclav
0 or 1	098	3	Clavitude
0 or 1	099	4	TrueHarpsi
0 or 1	100	5	8'4'Harpsi
0 or 1	101	6	Harpsi&Pad
0 or 1	102	7	Kool Vibes
0 or 1	103	8	Tine Vibes
0 or 1	104	9	DigitVibe
0 or 1	105	10	BriteMarim
0 or 1	106	11	Woody Xylo
0 or 1	107	12	Wood Sign
0 or 1	108	13	Ingrid
0 or 1	109	14	Metalwork
0 or 1	110	15	Broken Toy
0 or 1	111	16	FlangdMuse

PROGRAM NAME	NOTES
Real Clav	
Obligaclav	
Clavitube	
TrueHarpsi	
8'4'Harpsi	
Harpsi&Pad	
Kool Vibes	
Tine Vibes	
DigitlVibe	
BriteMarim	
Woody Xylo	
Wood Sign	
Ingrid	
Metalwork	
Broken Toy	
FlangdMuse	

Organ

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
0 or 1	112	1	Moregistrs
0 or 1	113	2	Warm Organ
0 or 1	114	3	2 Stops
0 or 1	115	4	HiPercOrgn
0 or 1	116	5	More Percs
0 or 1	117	6	Harmonious
0 or 1	118	7	B-Cussion
0 or 1	119	8	Concussion
0 or 1	120	9	Slow Pipes
0 or 1	121	10	Positiv 4'
0 or 1	122	11	Positiv8'4'
0 or 1	123	12	Principal+
0 or 1	124	13	Puff Pipes
0 or 1	125	14	No Perc B
0 or 1	126	15	PaintChips
0 or 1	127	16	Surf Organ

PROGRAM NAME	NOTES
Moregistrs	
Warm Organ	
2 Stops	
HiPercOrgn	
More Percs	
Harmonious	
B-Cussion	
Concussion	
Slow Pipes	
Positiv 4'	
Positiv8'4'	
Principal+	
Puff Pipes	
No Perc B	
PaintChips	
Surf Organ	

Bass

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	000	1	FatUpright
2	001	2	Box Bass
2	002	3	Fingered
2	003	4	Pixx
2	004	5	FlangrBass
2	005	6	Fretless 1
2	006	7	Fretless 2
2	007	8	Octaver 1
2	008	9	Octaver 2
2	009	10	Acid Bass
2	010	11	PedalDrone
2	011	12	Pressure
2	012	13	Y Bass
2	013	14	Power Bass
2	014	15	Bondo Bass
2	015	16	BassHarmnc

PROGRAM NAME	NOTES
FatUpright	
Box Bass	
Fingered	
Pixx	
FlangrBass	
Fretless 1	
Fretless 2	
Octaver 1	
Octaver 2	
Acid Bass	
PedalDrone	
Pressure	
Y Bass	
Power Bass	
Bondo Bass	
BassHarmnc	

String

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	016	1	RichString
2	017	2	MarcatoEns
2	018	3	Arco Bows
2	019	4	StrPadDecy
2	020	5	BrtStrgPad
2	021	6	LushStrngs
2	022	7	StringMood
2	023	8	Film Score
2	024	9	OctaString
2	025	10	HugeString
2	026	11	Big String
2	027	12	FifthsAura
2	028	13	String&Pad
2	029	14	OB Strings
2	030	15	HyerString
2	031	16	Eurostring

PROGRAM NAME	NOTES
RichString	
MarcatoEns	
Arco Bows	
StrPadDecy	
BrtStrgPad	
LushStrngs	
StringMood	
Film Score	
OctaString	
HugeString	
Big String	
FifthsAura	
String&Pad	
OB Strings	
HyerString	
Eurostring	

Synth Pad

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	032	1	Light Vox
2	033	2	OohDecyPad
2	034	3	Vox In Box
2	035	4	Coed Oohs
2	036	5	Night Vox
2	037	6	SoftMorphi
2	038	7	FilterWave
2	039	8	VCO Swell
2	040	9	LightForce
2	041	10	ExpndngPad
2	042	11	VibratoPad
2	043	12	Transcdnt
2	044	13	Syn Flange
2	045	14	Bali Hai
2	046	15	WarmStrPad
2	047	16	PowrStrPad

PROGRAM NAME	NOTES
Light Vox	
OohDecyPad	
Vox In Box	
Coed Oohs	
Night Vox	
SoftMorphi	
FilterWave	
VCO Swell	
LightForce	
ExpndngPad	
VibratoPad	
Transcdnt	
Syn Flange	
Bali Hai	
WarmStrPad	
PowrStrPad	

Lead

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	048	1	Lucky Lead
2	049	2	Tri Lead
2	050	3	Pulse Lead
2	051	4	SynTrumpet
2	052	5	VoltagePad
2	053	6	70sAmbient
2	054	7	Analead
2	055	8	Funk Lead
2	056	9	Slippery
2	057	10	Dualalead
2	058	11	MiniLeader
2	059	12	Hi Buzz
2	060	13	Analogos
2	061	14	SynClvLead
2	062	15	Bigeew Sawz
2	063	16	Sawtooth 5

PROGRAM NAME	NOTES
Lucky Lead	
Tri Lead	
Pulse Lead	
SynTrumpet	
VoltagePad	
70sAmbient	
Analead	
Funk Lead	
Slippery	
Dualalead	
MiniLeader	
Hi Buzz	
Analogos	
SynClvLead	
Bigee Sawz	
Sawtooth 5	

Split

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	064	1	Jazz Duo
2	065	2	Ballad Duo
2	066	3	DrkPnoSplt
2	067	4	Chorusplit
2	068	5	BrtPnoSplt
2	069	6	EgrndSplit
2	070	7	EP Split 1
2	071	8	EP Split 2
2	072	9	WurlySplit
2	073	10	FM Split
2	074	11	Bass&Vibes
2	075	12	Bass&Organ
2	076	13	Uprite&Str
2	077	14	Uprite&Vox
2	078	15	SynthSplit
2	079	16	Saw Man

PROGRAM NAME	NOTES
Jazz Duo	
Ballad Duo	
DrkPnoSplt	
Chorusplit	
BrtPnoSplt	
EgrndSplit	
EP Split 1	
EP Split 2	
WurlySplit	
FM Split	
Bass&Vibes	
Bass&Organ	
Uprite&Str	
Uprite&Vox	
SynthSplit	
Saw Man	

Effect

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	080	1	TremCloud
2	081	2	MandoPiano
2	082	3	PnoGryyard
2	083	4	Monolith
2	084	5	Dang Bells
2	085	6	Circulate
2	086	7	Telemetry
2	087	8	T-Minus 1
2	088	9	T-Minus 2
2	089	10	MonstrMash
2	090	11	Creeps
2	091	12	Power Up
2	092	13	HighGlissz
2	093	14	Tire Iron
2	094	15	StereoTomb
2	095	16	Metronome

PROGRAM NAME	NOTES
TremCloud	
MandoPiano	
PnoGryyard	
Monolith	
Dang Bells	
Circulate	
Telemetry	
T-Minus 1	
T-Minus 2	
MonstrMash	
Creeps	
Power Up	
HighGlissz	
Tire Iron	
StereoTomb	
Metronome	

Piano & Pad

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	096	1	SftPno&Pad
2	097	2	LA Studio
2	098	3	PnoPad5ths
2	099	4	BrtPno&Pad
2	100	5	Egrand&Pad
2	101	6	Pno&HiPad
2	102	7	Pno&OrgPad
2	103	8	Pno&SynPad
2	104	9	PnoFlutPad
2	105	10	Pno&LowPad
2	106	11	Pno&SawPad
2	107	12	PnoTremPad
2	108	13	Cinema EP
2	109	14	Wurly&Pad
2	110	15	DigiEP&Pad
2	111	16	FMPno&Pad

PROGRAM NAME	NOTES
SftPno&Pad	
LA Studio	
PnoPad5ths	
BrtPno&Pad	
Egrand&Pad	
Pno&HiPad	
Pno&OrgPad	
Pno&SynPad	
PnoFlutPad	
Pno&LowPad	
Pno&SawPad	
PnoTremPad	
Cinema EP	
Wurly&Pad	
DigiEP&Pad	
FMPno&Pad	

Piano & Vox

BANK SELECT	MIDI PROGRAM	KNOB NUMBER	PROGRAM NAME
2	112	1	Pianooohs
2	113	2	PnoVox Pad
2	114	3	LiteVoxPno
2	115	4	Pno&FIVox1
2	116	5	Pno&FIVox2
2	117	6	Vox In Pno
2	118	7	Uprite&Vox
2	119	8	EgrandVox1
2	120	9	EgrandVox2
2	121	10	EgrandVox3
2	122	11	PnoVoxFling
2	123	12	EP Vox Pad
2	124	13	DarkEP&Vox
2	125	14	Wurly&Vox
2	126	15	EP&Vox5ths
2	127	16	DarkLounge

PROGRAM NAME	NOTES
Pianoohs	
PnoVox Pad	
LiteVoxPno	
Pno&FIVox1	
Pno&FIVox2	
Vox In Pno	
Uprite&Vox	
EgrandVox1	
EgrandVox2	
EgrandVox3	
PnoVoxFIng	
EP Vox Pad	
DarkEP&Vox	
Wurly&Vox	
EP&Vox5ths	
DarkLounge	

Sound ROM

This is a list of the sample families that are built in to the NanoPiano's 8 megabytes of sound ROM. They are the "raw materials" that the programs combine, in different ways, to create the unit's 256 programs.

Piano	GrndPianoL	Soft Roads
	GrndPianoR	SftRdsWave
	DarkPno1 L	Velo Roads
	DarkPno1 R	Wurly Wave
	DarkPno2 L	FM Tines
	DarkPno2 R	Soft Tines
	DarkPno3 L	VelAtkTine
	DarkPno3 R	Digital EP
	BritePno1L	Piano Trem
	BritePno1R	PnoKnock L
	BritePno2L	PnoKnock R
	BritePno2R	Metronome
	BritePno3L	
	BritePno3R	Chromatic Clavinet
	NoHammer L	ClavntWave
	NoHammer R	VelAtkClav
	SoftPianoL	Harpsicord
	SoftPianoR	HarpsiWave
	VeloPianoL	VAtkHarpsi
	VeloPianoR	Vibraphone
	TapPiano L	VibesWave
	TapPiano R	Varimba
	E Spinet 1	Marimba
	E Spinet 2	MarimbaSft
	Toy Pno L	MarimbaVel
	Toy Pno R	Xylophone
	KeyTrack 1	Fantastic
	KeyTrack 2	FantstcWav
	Stretch L	
	Stretch R	Organ Perc Organ
	PianoWaveL	Drawbars
	PianoWaveR	Pipe Organ
	BriteRoads	Principale
	BrtrdsWave	
	Dark Roads	Bass Fretless
	DrkRdsWave	FretlsTone

AcoustBass
SynAcoustic
BassHarmnc
Synth Vocal Oohs
LushStrngs
AttkStrngs

Analog Pad
Wave Sine
Sawtooth
Square
Triangle

4: MIDI RULES

The Basics

The Not-So-Basics

MIDI Implementation Chart

The Basics

The NanoPiano receives on one MIDI channel at a time, which is set by the CHANNEL knob on the front panel.

During MIDI playback you can change categories and programs at any time, either by sending Bank Select or Program Change messages, or by turning the CATEGORY or PROGRAM knobs on the front panel.

There are 256 programs in the NanoPiano. But there are only 128 MIDI program numbers (000-127). To make it possible to activate any of the 256 programs via MIDI, they have been separated into two BANKS of 128 programs each.

The first bank is selected by sending a Controller 0 command (Bank Select) with a value of either 0 or 1. This bank consists of the eight categories listed on the right side of the CATEGORY knob:

- Acoustic Piano
- Piano & Strings
- Piano Layer
- Piano FX
- E. Piano
- EP Layer
- Chromatic
- Organ

The second bank is selected by sending a Controller 0 command (Bank Select) with a value of 2. This bank consists of the eight categories listed on the left side of the CATEGORY knob:

- Bass
- String
- Synth Pad
- Lead
- Split
- Effect
- Piano & Pad

Piano & Vox

PLEASE NOTE: It's possible to get confused here, if you don't pay attention, by the interaction of the CATEGORY knob and incoming MIDI Program Change commands.

First, when you send Bank Select and Program Change commands, the front panel knobs don't move. This means that you could easily be playing ACOUSTIC PIANO 1 via MIDI, say, while the two knobs point toward EFFECT 12. Don't be fooled.

Secondly, the latest Bank Select command that the NanoPiano receives, either from its front panel or over MIDI, is what it pays attention to. For an example of this, consider the following situation. Using MIDI, you select Bank 1 and a certain program you like. Then someone comes along (while you aren't looking) and turns the CATEGORY knob to one of the Bank 2 categories. Now Bank 2 is selected, and if all you send the NanoPiano is a Program Change command (instead of a Bank Select followed by a Program Change) you won't get the program you wanted. Instead, you'll get the same-numbered program in Bank 2.

TIP: Because of this, I suggest that you always send both a Bank Select command and a Program Change command, together, when controlling your NanoPiano via MIDI.

CONTROLLER 0 vs. CONTROLLER 32: Some sequencers automatically use Controller 32 commands for selecting banks on an instrument. Please be aware that the NanoPiano does *not* respond to Controller 32 commands. The only way to select banks on a NanoPiano via MIDI is to use Controller 0.

The Not-So-Basics

I mentioned earlier that using MIDI gives you real-time control over lots more program parameters than you can adjust from the front panel. Here I'd like to encourage you to experiment with just that.

Sending Mod Wheel data, for example, does some very neat things in various programs. In some (like most of the electric pianos) it will adjust tremolo. In organs it will speed up and slow down the Leslie speaker effect. In other programs it will open the filter for a nice *waaah* sound. Try it and see.

But don't stop there. The four MIDI controllers used across the board in the Alesis QS series of synthesizers will yield great results, too. These controllers are 12 (often filter control), 13, 91 (often envelope length), and 93.

MIDI Implementation Chart

		Transmitted	Recognized	Remarks
BASIC CHANNEL	Default	1-16	1-16	
	Changed	1-16	1-16	
MODE	Default	X	Modes 3, 4	
	Messages	X	All Notes Off	
	Altered	X	X	
NOTE NUMBER		X	0-127	
	True Voice	X	0-127	
VELOCITY	Note On	X	O	7-bit Resolution
	Note Off	X	O	
AFTERTOUCH	Key's	X	O	
	Ch's	X	O	
PITCH BENDER		X	O	
CONTROL CHANGE	1	X	O	Mod Wheel
	7	X	O	Volume
	10	X	O	Panning
	11	X	O	Expression
	64	X	O	Sustain Pedal
	123	X	O	All Notes Off
	Effect Knob	X	O	CC #12*
PROGRAM CHANGE	True #	X	0-127	
SYSTEM EXCLUSIVE		O	O	
SYSTEM COMMON	Song Pos	X	X	
	Song Sel	X	X	
	Tune	X	X	
SYSTEM REAL TIME	Clock	X	X	
	Message	X	X	
AUX	Local Control	X	X	
	All Notes Off	X	O	
	Active Sense	X	X	
	Reset	X	X	

Notes: * The setting of the effect knob responds to Controller #12 by default on Power-Up. This Controller number may be changed to 0-120 by SysEx.

5: CREDITS

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...and thanks to KEITH BARR, for believing in the vision.

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