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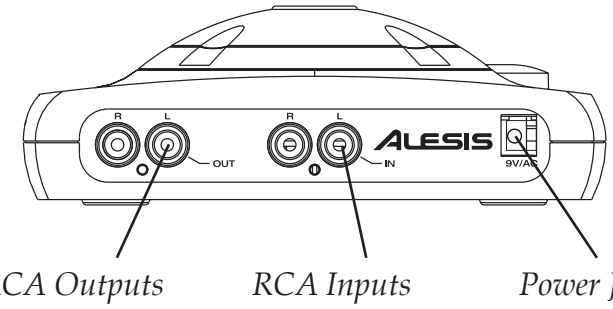
FRONT PANEL

REAR PANEL



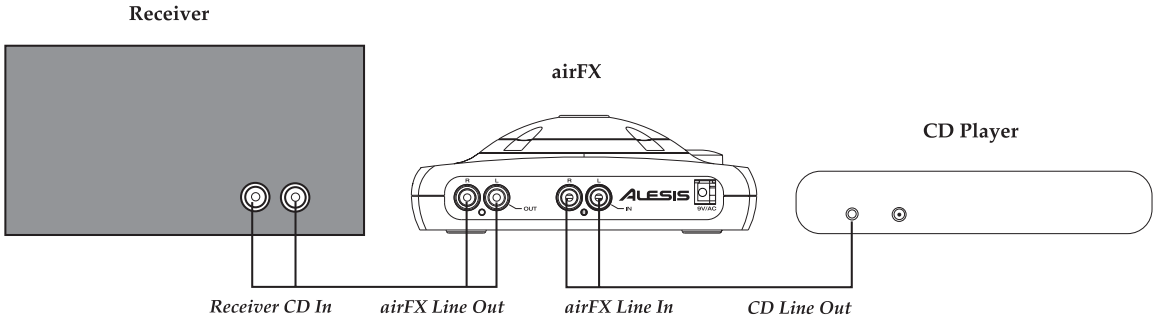
CHAPTER 1

QUICK START GUIDE

This page gives you brief instructions so that you can start using the airFX right away. If you have questions about any of the steps, don't worry – the following chapters will expand on these instructions with mind-numbing detail.

Step 1: Hook it up

Pull the airFX out of the package, and plug it into the wall with the supplied Power Supply. Connect the Left and Right output of a CD player into the Left and Right inputs of the airFX. Connect the Left and Right outputs of the airFX into the Left and Right CD Inputs of a stereo receiver. Select CD as the input on the receiver.



NOTE: If your system looks different from this one, skip ahead to Chapter 2, Connections.

Step 2: Select a Program

Turn the Program Select knob and select a Program between 00 and 49. When you've found one you like, press the knob down to select it. There is a list of program names printed on the bottom of the unit.

Step 3: Have fun

Press play on your CD player, and move your hand over the black Axyz™ dome on the unit. Try moving from side to side, front to back, as well as up and down. Get down!

CHAPTER 2

CONNECTIONS

Unpacking and Inspection

Your Alesis airFX was carefully packed at the factory, and the shipping carton was designed to protect the unit during shipping. Please retain this container in the highly unlikely event that you need to return your processor for servicing.

The shipping carton should contain the following items:

- airFX Processor
- Two stereo phono-to-phono cables
- This instruction manual
- Program Chart
- Power Supply, Alesis model P3
- Alesis Warranty card

It is important to register your purchase; if you have not already filled out your warranty card and mailed it back to Alesis, please take the time to do so now.

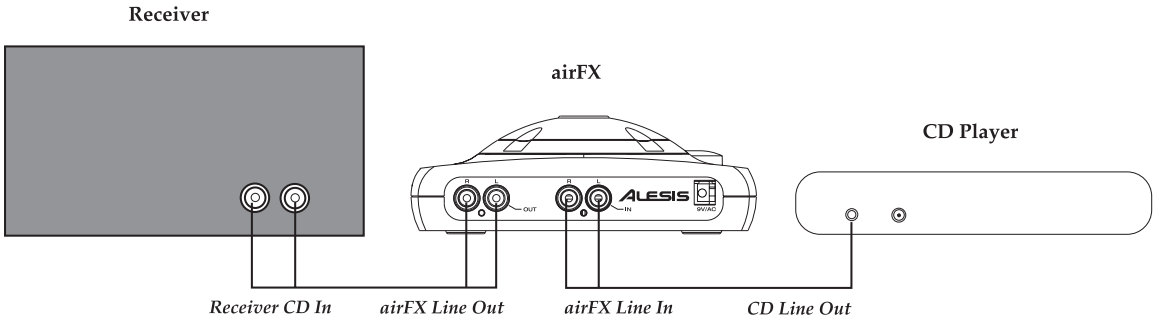
Basic Connections

The airFX is designed to function with a wide range of equipment, from CD players to musical instruments. The only requirement is that the input and output be line level (for the technically minded, unbalanced -10 dBu).

This means that you never want to plug the powered output of an amplifier or receiver into the airFX. These speaker-level voltages will fry the electronics inside of the airFX.

The systems on the next few pages will give you some examples of typical systems where the airFX is used. If you can't apply one of these systems to your own setup, contact Alesis or your dealer for assistance.

Connecting between a CD Player and a Stereo Receiver



The above system allows you to hear the effect of the airFX on a CD through any stereo system. Using one of the supplied stereo RCA (phono) cables, plug the Left and Right outputs of your CD player into the Left and Right Inputs of the airFX. Usually, the white connector is connected to the left side and the red connector is connected to the right side.

Next, using the other stereo RCA cable, plug the Left and Right outputs of the airFX into the Left and Right CD inputs of your receiver. (Actually, any unused inputs on the receiver should work except for "Phono" or "Record Player".) This hookup method also works with self-powered speaker systems instead of a stereo receiver.

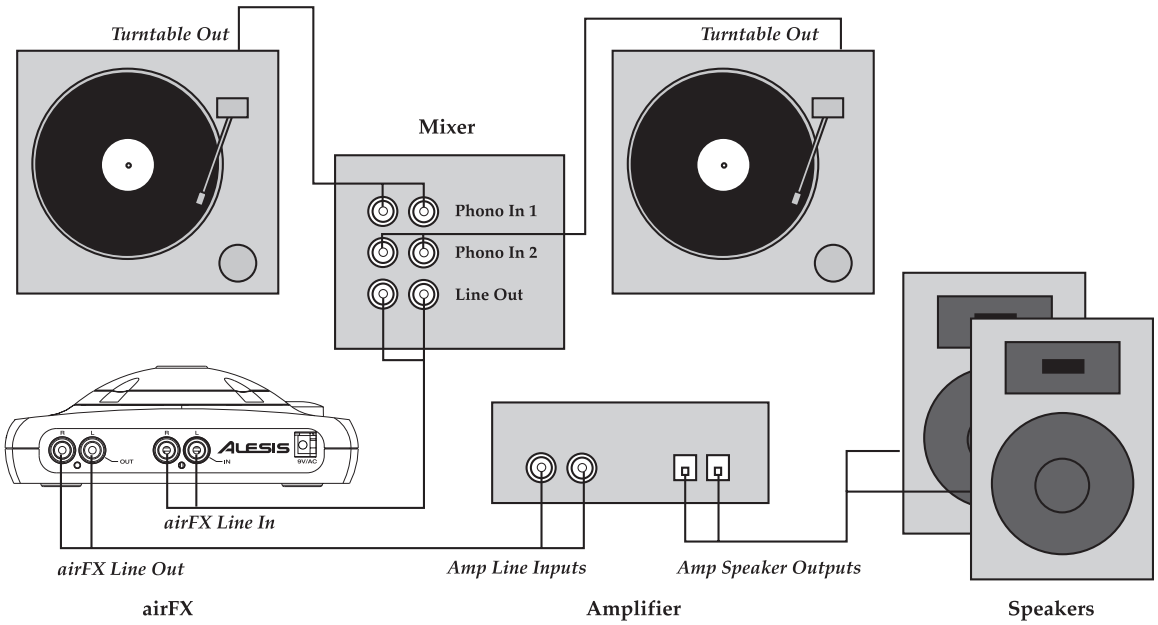
If the CD doesn't have line-level RCA outputs:

The instructions above are fine for home or professional CD Players. However, most portable CD players don't have a pair of RCA outputs like component CD players do. Instead, they have a 1/8" Mini jack. This is usually labeled "Line Out". If your CD Player doesn't have a Line Out, then use the Headphone output and set the Volume to about 80% or less to avoid distorting the airFX.

Many portable CD players include a cable with a 1/8" mini jack on one side and a pair of RCA connectors on the other. You will need to locate or purchase this cable to use a portable CD player with the airFX. Plug the RCA connectors on this cable into the Left and Right Inputs of the airFX. You should be able to use these instructions to connect a game console, DVD player or video camera through the airFX.

Although the speaker outputs of many compact stereo systems use an RCA connector between the main outputs and the speakers, speaker level voltages like these will distort and possibly damage the airFX.

Connecting into a DJ System



This section explains how to connect the airFX into a DJ system. The first point to mention is that the output of a turntable is *not* at line level. Therefore, unlike a CD player, you can't just connect the output of the turntable into the airFX. You need to connect the turntable to a phono preamp, then connect this output to the airFX.

In a DJ system, the preamp is usually built into a mixer. In the diagram above, we first connect the two turntables into the mixer. We then plug the Left and Right outputs of the mixer into the airFX, making sure that these are not speaker level outputs. Next, plug the Left and Right outputs of the airFX into the Left and Right inputs of your power amplifier.

If your amplifier is built into the mixer, make sure you don't plug those speaker-level outputs into the inputs of the airFX. The voltage levels needed to drive large DJ speakers will distort and possibly damage the airFX.

If the amplifier is built into the mixer, there may be a "main insert" in the mixer, designed for an EQ. If so, plug the Left and Right Insert Sends into the inputs of the airFX and the Left and Right outputs of the airFX into the Insert Returns.

With the setups above, you will hear the effect of the airFX on everything that comes out of your mixer. If you have a separate preamp for your turntable, or if you are using a CD player, you may

want to connect the airFX to one of the inputs to your mixer while the other plays unaffected. To do this, connect the outputs of your preamp or CD player into the inputs of the airFX. Then connect the outputs of the airFX into the inputs of your mixer. Now you can mix between the effected mix from one source to the uneffected source on another.

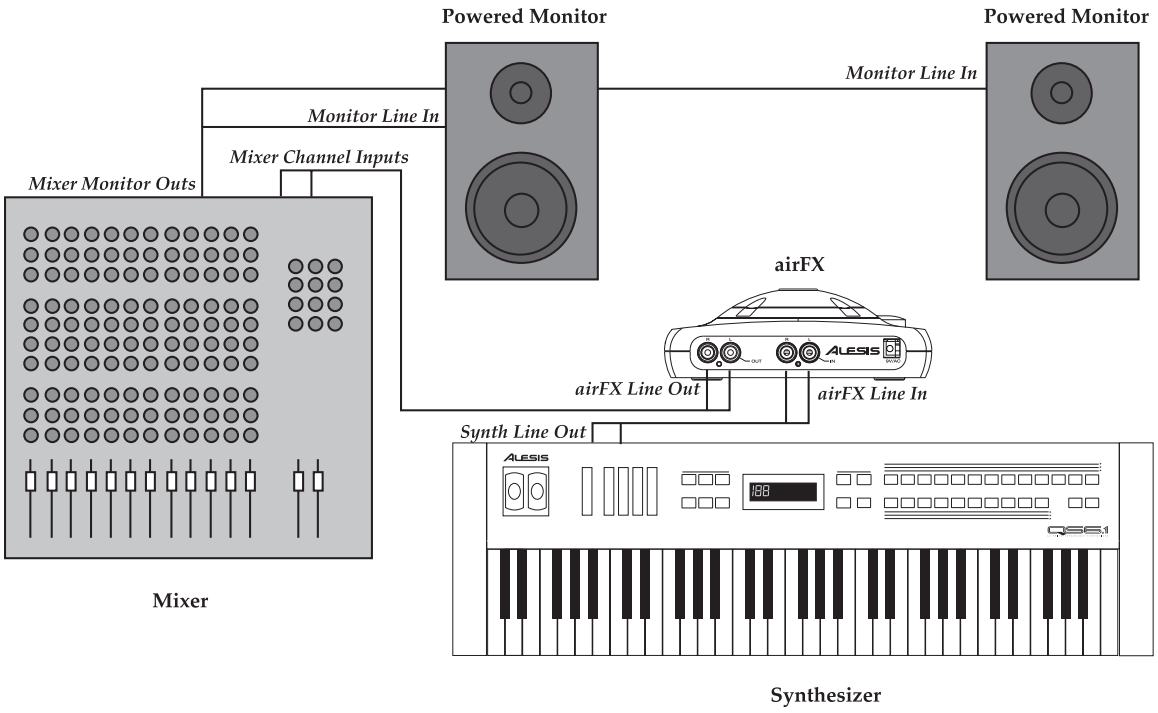
Mounting on a Microphone Stand

The bottom of the airFX features a threaded socket for a standard microphone stand. This allows the unit to be mounted away from the area where the other equipment is, so that unintended movements won't be picked up by the Axyz controller.

When mounting on a stand, avoid tipover by:

- Using a stand with a heavy base
- Tying the input, output and power cables to the stand in several places, especially near the base (so if someone pulls on the cord, it pulls on the base)
- Using cords that are long enough

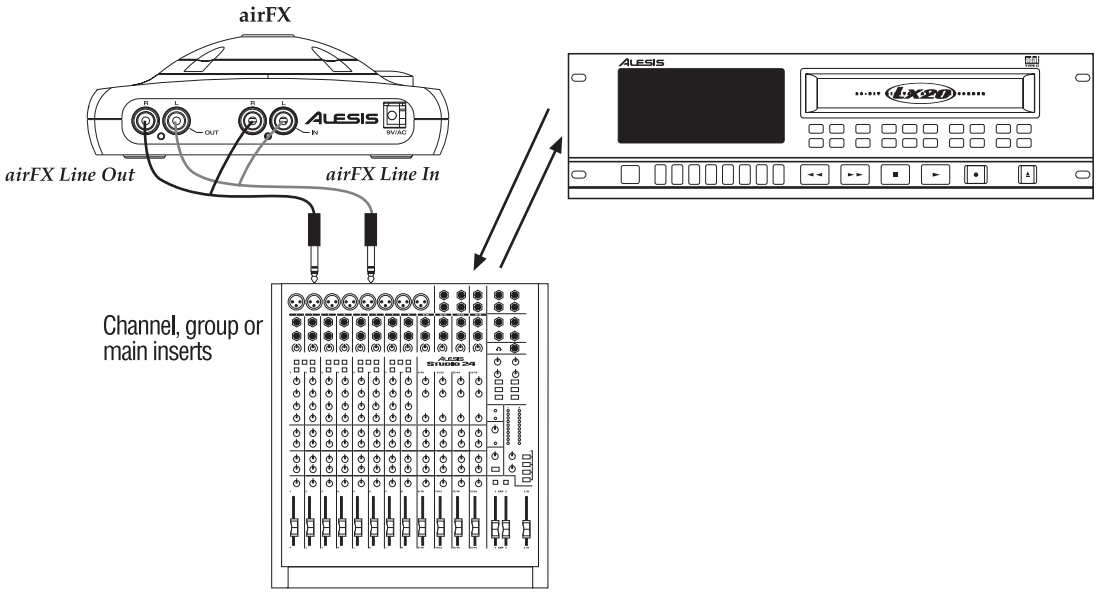
Connecting to a Synthesizer



The airFX can add great filter effects to a synthesizer. In the diagram above, we demonstrate how the Left and Right outputs of the synthesizer are connected to the inputs of the airFX, then the stereo outputs of the airFX are connected to two inputs of a mixer.

The outputs of a synthesizer are usually 1/4" jacks, which means that you'll need to purchase an adapter cable to use the airFX. The best choice is a cable with RCA (phono) jacks on one side and 1/4" jacks on the other. Your Alesis dealer will almost certainly carry these cables.

Connecting to a Studio Mixer



The best method of connecting the airFX to a mixing console or multitracker is to use the channel inserts. You'll need two "insert splitter" cables with a TRS stereo 1/4" connector on one side splitting to two RCA connectors on the other. (Note: this is NOT a "Y" cord; the ring is connected to one RCA and the tip to the other.) Insert the 1/4" stereo plug into the mixer's channel insert, connect the send plug to the airFX's Input and the return to the airFX's output.

You can also use the main inserts, if your mixer has them, to use the airFX on the entire mix, or on a group insert if you want to effect multiple channels at once but not the entire mix.

Aux send/return: Note that in most cases, you won't connect the airFX to an effects send and return of a mixer, the way that many reverbs or other effect devices are. This is because when the effect is off, the airFX still sends the "dry" signal to its outputs. This may cause phase cancellation or other unwanted effects if the aux return is mixed back with the original.

Mono Operation

If your source does not have stereo outputs, you can use only one side of the airFX. Plug the mono output of your source into the Left input of the airFX, then connect the Left output of the airFX to the destination. If the destination is stereo, you may need a "Y-cable" to split the one RCA jack into two RCA jacks.

CHAPTER 3

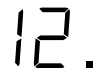
PERFORMANCE

Selecting a Program

The Alesis airFX contains 50 programs for adding a variety of new effects to the incoming signal. There is a list of program names printed on the bottom of the unit, and you should have received a program chart with the unit that describes each program.

Selecting a new program is simple:

1. Turn the program knob on the bottom left side of the airFX to select a program number. The new program will not load right away, allowing you to keep using one program while you find another.



Notice that there is a decimal point after the program number to indicate that it hasn't been loaded yet.

2. Briefly press the Program knob to load this new program.

The decimal point goes away, showing that the program has been loaded.

Using the Axyz™ Controller

The airFX is the first Alesis product to use the groundbreaking Axyz controller. This controller allows you to use your hand to control the sound of your music in a way never before possible.

The Axyz controller works by sending a beam of invisible infrared light out of the top of the unit. There are sensors all around the dome which see the light when it is reflected back. By moving your hand around the dome, you reflect the light to different sensors, and this changes the sound of the effect.

There are three sets of sensors in the Axyz controller, they are known as the X-axis, Y-axis, and Z-axis.

The **X-axis** sensor reads your hand position from left to right.

The **Y-axis** sensor reads your hand position from the front to the back of the unit.

The **Z-axis** sensor reads how close your hand is to the sensor (up and down).

> **Tip:** When playing the airFX, make sure to move your hand in all three directions. Some of the programs don't use the Y-axis, but most use all three.

You should hear an effect when your hand gets within 6" (15 cm) of the Axyz controller. For a list of what each axis does to the sound, see the Program Chart which came with your unit.

Note that ambient light can affect the sensitivity of the Axyz controller. Make sure that you don't sit the airFX right next to a light source or in the sun, or you may notice that you need to move your hand closer to hear an effect. You may also notice this if a large light is pointed directly at the airFX when you are on stage.

Effect Hold

The airFX has a function that allows you to freeze the current effect from the airFX without needing to hold your hand in place. This function is called Hold.

To use the Hold function:

1. Recall a program as described in the previous section. There should be no decimal points showing in the display.

   Note that there are no decimal points in the display, showing that the effect is loaded and operational.

2. Move your hand around the Axyz controller, stopping your hand position when you find an effect that you want to freeze.

3. Press and hold the Program knob for about one second. A decimal point should appear in the display between the first and second number of the program.

   A decimal point has appeared between the first and second digits of the program number, showing that the Hold function is set.

4. Move your hand away from the Axyz controller. Notice that the effect continues as if your hand was still there.

5. To turn off the hold function and resume normal operation, press the Program knob one more time. The decimal point should go away and you can use the Axyz controller again to modify the sound.

Effect Bypass

The effect Hold function can also be used as a Bypass. This function turns off the Axyz controller so that the effect is not accidentally triggered.

To use the Bypass function:

1. Recall a program as described in the previous section. There should be no decimal points showing in the display.

   Note that there are no decimal points in the display, showing that the effect is loaded and operational.

2. Move your hand away from the Axyz controller, making sure that the airFX isn't affecting the sound.

3. Press and hold the Program knob for one second. A decimal point should appear in the display between the first and second number of the program.

   A decimal point has appeared between the first and second digits of the program number, showing that the Bypass/Hold function is set.

4. The Axyz controller should now have no effect, so moving your hand towards the Axyz dome should not change the sound.

5. To turn off the hold function and resume normal operation, press the Program knob one more time. The decimal point should go away and you can use the Axyz controller again to modify the sound.

CHAPTER 4

TROUBLESHOOTING

Troubleshooting Index

If you experience problems while operating your airFX, please use the following table to locate possible causes and solutions before contacting Alesis Product Support for assistance.

Symptom	Cause	Solution
No audio from outputs	No input audio	Try one of the programs that don't require input (#42-49) or check the source.
	Bad cables	Replace the cables.
	Destination is turned down	Check the connections and the level of the mixer or amp that the airFX is connected to.
	Power is not connected	Time for a coffee break.
Buzz from outputs	Cables are crossing a power cable	Make sure that the airFX and its audio cables are kept away from power cables, other power transformers and wall warts.
	Bad cables	Replace the cable with a new, high-quality cable.
	Problem with the source	Try bypassing the airFX by connecting the input cables to the output cables and see if the problem remains.

Symptom	Cause	Solution
Axyz controller is not as sensitive as it should be	Infrared interference (rare)	Shade the airFX from IR sources.
	Too much interference from smoke	If a fog machine or cigarette smoke is nearby, try moving the airFX.
Can't change programs	Software problem	Unplug the airFX and plug it back in
No effect	Hold feature is turned on	If there is a decimal point between the numbers, hold the Program knob until it goes away.
	Not close enough to the Axyz sensor, effect too subtle	Try moving your hand closer to the sensor or switching to a different program.

Care and Maintenance

Cleaning

Disconnect the AC cord, then use a damp cloth to clean the airFX's metal and plastic surfaces. For heavy dirt, use a non-abrasive household cleaner such as Formula 409™ or Fantastik™. DO NOT SPRAY THE CLEANER DIRECTLY ONTO THE FRONT OF THE UNIT AS IT MAY DESTROY THE LUBRICANTS USED IN THE SWITCHES AND CONTROLS! Spray onto a cloth, then use cloth to clean the unit.

Refer All Servicing to Alesis

We believe that the airFX is one of the best processors that can be made using current technology, and should provide years of trouble-free use. However, should problems occur, DO NOT attempt to service the unit yourself. Service on this product should be performed only by qualified technicians. NO USER-SERVICEABLE PARTS INSIDE.

Obtaining Repair Service

Before contacting Alesis, check over all your connections, and make sure you've read the manual.

Customers in the USA and Canada: If the problem persists, contact Alesis and request the Product Support department.
Make sure you have the unit's serial number with you. Talk the

problem over with one of our technicians; if necessary, you will be given a return order (RO) number and instructions on how to return the unit. All units must be shipped prepaid and COD shipments will not be accepted.

For prompt service, indicate the RO number on the shipping label. **Units without an RO will not be accepted.** If you do not have the original packing, ship the unit in a sturdy carton, with shock-absorbing materials such as Styrofoam pellets (the kind without CFCs, please) or "bubble-pack" surrounding the unit. Shipping damage caused by inadequate packing is not covered by the Alesis warranty.

Tape a note to the top of the unit describing the problem, include your name and a phone number where Alesis can contact you if necessary, as well as instructions on where you want the product returned. Alesis will pay for standard one-way shipping back to you on any repair covered under the terms of this warranty. Next day service is available for a surcharge. Field repairs are not authorized during the warranty period, and repair attempts by unqualified personnel may invalidate the warranty.

Customers outside the USA and Canada:
Contact your local Alesis distributor for any warranty assistance. The Alesis Limited Warranty applies only to products sold to users in the USA and Canada. Customers outside of the USA and Canada are not covered by this Limited Warranty and may or may not be covered by an independent distributor warranty in the country of sale. Do not return products to the factory unless you have been given specific instructions to do so.

Internet Address: Important information and advice is available on our web site:

http://www.alesis.com

Email may be addressed to:

Support@alesis.com

Program Chart

Special FX 1

#	*Program Name*	*Description*	*X Axis*	*Y Axis*	*Z Axis*
0	Pitch Out	Like holding your finger on a record player, slows it down then stops the music	-	-	Mix
1	Lord of the Flies	A vocoder effect that fades between noise and synth tones	Synth Pitch	Synth/ Noise Balance	Mix
2	Vinylizer	Feed your tunes through this scratchy record player	Bandwidth	Noise	Scratches
3	Percolator	Your music bubbles to the surface through bandpass filter peaks	Pitch Range	Speed	Mix
4	Frankenstein's Lab	Random tones to accompany your next experiment	Pitch Range	Speed	Mix
5	Overdrive	Makes your CD player sound like it's been thrown out of a moving bus	High Cut Filter	Low Cut Filter	Distortion Amount
6	Kenneth's Frequency	Like it's being beamed from the killer satellites that follow you around	Ring Mod Speed	-	Mix
7	Horror Show	Ultra-fast vibrato for creepy effects	FM Speed	FM Depth	Mix
8	Decimator	Digital distortion that sounds like you're chewing on sand	Alias Filter	Sample Rate	Mix
9	SunSpot	Smoother, filtered distortion sounds great on drums	Lowpass Frequency	Resonance	Bit Reducer

The **X-axis** sensor reads your hand position from left to right.

The **Y-axis** sensor reads your hand position from the front to the back of the unit.

The **Z-axis** sensor reads how close your hand is to the sensor (up and down).

Filters

#	*Program Name*	*Description*	*X Axis*	*Y Axis*	*Z Axis*
10	Telephone	Tight filter, great for thinning out the mix	Frequency	Bandwidth	Mix
11	Big Bottom	Six-pole lowpass filter, perfect for synths and bass	Frequency	Resonance	Mix
12	Snake Bite	Highpass filter, sucks all the bass out for icy sweeps	Frequency	Resonance	Mix
13	Bow Wow	The Lowpass LFO Filter wags in time with the music	Frequency	Resonance	LFO Rate
14	Smoke	Like #13, but with a highpass filter for a thinner sound	Frequency	Resonance	LFO Rate
15	AutoWah	This "wah" is triggered by the music level	Frequency	Adds tempo control	Mix
16	Formented	Sounds like the music is coming out of someone's mouth, great on a full mix	Mouth position	Mouth position	Mix
17	Streetsweeper	Crazy filters that change frequency and panning when you wave right to left	Frequency	Frequency	Mix
18	Orlyfilter	Beat-synced random filter keeps time with the music	Frequency	Resonance	Tempo
19	Killswitch	Notch filter adds a narrow sweep to the mix	Frequency	Notch Width	Mix

Flange/Phase

#	*Program Name*	*Description*	*X Axis*	*Y Axis*	*Z Axis*
20	Tokyo Phase	Phaser with positive feedback, like wasabi for guitars	Frequency	Feedback	Mix
21	Phasors on Stun	Other-worldly phasor with negative feedback	Frequency	Feedback	Mix
22	Liquid Metal	25-band phase shifter for amazing metallic stereo effects	Frequency	Feedback	Mix
23	Spin Cycle	Rubbery stereo phasor that plays in time with the music	LFO Tempo	Feedback	Mix
24	Psychofaze	Trippy stereo phasor makes you see helicopters	-	Resonance	Mix
25	AutoFaze	Phase pulsates based on the level of the music, give it a heavy beat to play with	Depth	Feedback	Mix
26	Ghost Flange	Deep flanger kicks you back to the '70s	Depth	Feedback	Delay
27	Satellite	Oscillating flanger, cool on pads and drums	Rate	Feedback	Width
28	Fazed Out	Both a phasor and a flanger, for when a sound must be completely obliterated	Phase Delay	Flange Frequency	Feedback
29	Forever Flange	Barber-pole flanger that keeps going and going…	Flange slope	Feedback	Mix

Special FX 2

#	*Program Name*	*Description*	*X Axis*	*Y Axis*	*Z Axis*
30	Strobe Gate	Stuttering tremolo effect that keeps time with the music	-	Duty Cycle	Tempo
31	Nervous	A tremolo effect, it rapidly changes the volume up and down	Rate	-	Depth
32	Psychic Pan	Autopanner in sync to the beat, too much makes the dancefloor get dizzy	Panning	Rate	Mix
33	Kung-Fu Panner	Pan the music with your hand - it doesn't get much cooler	Panning	-	-
34	Stop it!	Kill the music with a wave of the hand, try it with applause for an ego boost	-	-	Cut
35	Freq It!	Pitch shifter to change your voice or someone else's	Pitch up/down	-	-
36	Pitch Transporter	Pitch transposer goes up or down an octave. Munchkin power!	Pitch up/down	-	-
37	Gender Bender	Another pitch transposer, this one goes up or down 4 steps	Pitch up/down	-	-
38	Waterbed	Vibrato effect for everything from a subtle shake to a sickening wobble	Rate	-	Depth
39	Spin the Bottle	Rotating speaker effect, it makes the room spin	Speed	-	Depth
40	Centrifuge	Another rotating speaker, great for keyboards and guitars	Speed	-	Radius
41	Bottom Feeder	Bass synthesizer adds punch and mass to any mix	Speed	High/Low Crossover	Horn Radius

Synth Patches

#	*Program Name*	*Description*	*X Axis*	*Y Axis*	*Z Axis*
42	Skratch!	The sound of a record scratching. Chicka-chicka	-	-	Scratch
43	Haunted Landscape	Spooky wind effects to keep you up nights	Frequency	Resonance	Mix
44	Headhunter	Talking drum, move your hand down faster for a louder sound	Pitch	Decay	Volume
45	Beatbox	Boombox: kick on the right and clap on the left. Keep away from breakdancers	Kick/Clap	Decay	Volume
46	Slap Synth	Synth tone, move hand faster for a louder sound	Pitch	Decay	Cutoff
47	Jungle Rip	Bass synth slide, faster "hit" gets a higher pitch	Waveshape	Decay	Pitch
48	War!	Noise synth, watch the bullets fly	Lowpass Frequency	Decay	Volume
49	Sci-Fi Theatre	Spooky synth tone for 50's Sci-Fi movies	Pitch	Waveshape	Volume

SPECIFICATIONS

I/O:	Stereo RCA in and out
Nominal Input Voltage:	-10dBu
Max Input Voltage:	11.96dBu (4.34Vpp)
Dynamic Range:	102.8 dB (A-weighted)
Signal to Noise Ratio:	-102.4dB (A-weighted)
THD+N:	0.0065%
Frequency Response:	20-20000Hz +0/-2.0 dB
Sampling Frequency:	44.1KHz
Converter Resolution:	24bit (ADC and DAC)
Processor Resolution:	28bit

All measurements done over a 20Hz-22,000Hz range with 1KHz sine wave at Full Scale, except for the dynamic range which was done with a -60dBFS 1KHz sine wave.