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USER GUIDE

Fill in the following information for your reference:

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SOFTWARE VERSION_____

424-5004-101

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Introduction

Thank you for purchasing an FXR Elite—and congratulations: You now own one of the most sophisticated pieces of audio signal-processing technology available. Offering a level of processing resolution and sound quality of units that can cost thousands of dollars, the FXR Elite uses specially designed integrated circuits and a straightforward user interface that quickly and easily gives you access to all of its features.

Features

- 255 studio effect presets
- Two separate processors
- Up to four studio effects combinations per preset
- Stereo inputs and outputs
- One-touch control—no programming necessary
- Plate, room, chamber, and hall reverb
- Forward and reverse gated reverb
- Stereo chorus and flanging
- Stereo delays and panning
- Slapback and tapped delay
- Stereo echoes
- MIDI Control
- Designed and manufactured in the United States of America

The FXR Elite provides you with 255 of the finest studio multiple effects combinations. With the power to create up to four simultaneous effects, you may choose rich combinations of chorus, delay, reverb, flanging, tapped delays, gated reverbs, reverse reverb, panning, special effects, and much more. ART designed a combination of powerful processing and ease of use into the FXR Elite. We strongly suggest that you read and refer to this manual while getting used to your new processor.

Quick Start Instructions

You're probably in a hurry to get your FXR Elite up and running, and you don't want to read the manual (at least, not right now). Okay, we understand. Here are the basics, laid out in simple form. It should take only a couple of minutes for you to read through them, and then you'll be ready to fire up your FXR Elite. Refer to this section if you have any difficulty. And later, when you want to get into more of the details of your FXR Elite, check out the rest of the manual.

Quick Setup

Insert the the supplied AC adapter's plug into the input labeled PWR on the FXR Elite's back panel.

Turn the Input and Output knobs to their full counterclockwise positions.

With a mixer: Connect two cords with 1/4" plugs between your mixer's reverb sends and the FXR Elite's Line Inputs. Connect two more cords between the FXR Elite's Line Outputs and your mixer's returns. Set the FXR Elite's mix control to its midpoint (50 shows in the numeric display).

Straight into an amp: If you're patching the FXR Elite into a guitar (or other instrument) amplifier, use one cord between the instrument and the FXR Elite's left Line Input. Run a second cord from the left Line Output to the amp's input. If the amp has stereo input capabilities, connect another cord between the FXR Elite's right Line Out and the amp's second-channel input. You can also plug a second output from your instrument (or the output from another instrument) into the FXR Elite's right Line In.

In an amp's effects loop: If you're patching the FXR Elite into a guitar (or other instrument) amplifier's effects loop, and it's mono, use one cord

between the amp's effects send jack and the FXR Elite's left Line Input. Run a second cord from the left Line Output to the amp's Effects Return jack. (If the amp has stereo returns, use another cord to connect the FXR Elite's right Line Output to the amp's other effects return jack.) Set the FXR Elite's mix control to its midpoint (so the numeric display shows the number 50).

Note: If you need further help doing your initial hook-up, refer to the diagrams and information on pages 28 through 33.

Plug the FXR Elite's AC adapter into the wall socket (the FXR Elite is now powered up). Now turn on your mixer or amp and your monitor amplifier.

Make sure that your mixer's or amp's send level control is turned up and that signal is being sent to the FXR Elite. Turn the FXR Elite's Input knob clockwise until the FXR Elite's Signal LEDs glow. If the FXR Elite's Clip LED glows constantly, turn down its Input level—the Clip LED should only glow when a really loud instantaneous signal reaches the FXR Elite.

Now turn up the FXR Elite's Output level, and raise the return level on your mixer or amp. You should be hearing the FXR Elite's effect. If not, check your connections and your monitor amp (you did remember to turn it on, didn't you?).

Select program banks with the two Preset buttons (they're immediately to the right of the numeric display and are accompanied by up and down arrows). For a list of the presets, arranged according to bank and number, see page 34.

Hammer your keyboard. Wail on your guitar. Mix your entire album. And, of course, try all of the presets. Don't hold back. And when you're ready, check out the rest of this manual.

Installation

The FXR Elite may be used in a variety of setups including: mixing consoles with reverb send and return facilities, and in the effects loop of an instrument or P.A. amplifier. Self-contained in an all-steel single-height 19" rack-mount enclosure, the FXR Elite is designed for continuous professional use. Because the unit is compact and lightweight, mounting location is not critical. However, for greater reliability we recommend that you not place the FXR Elite on top of power amps, tube equipment, or other sources of heat.

Powering The FXR Elite

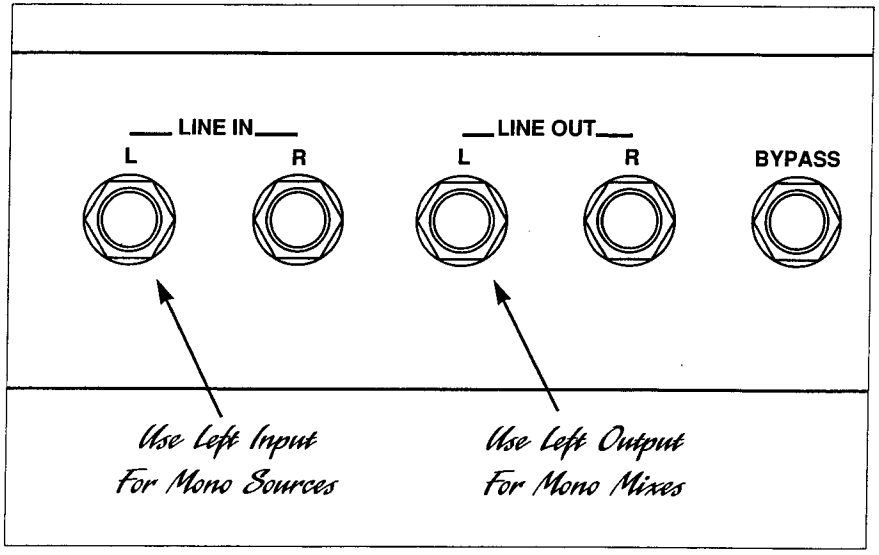
The FXR Elite is powered by an external AC adapter. Always make sure that its output jack is securely plugged into the rear of the FXR Elite, and that the adapter is held firmly in an electrical outlet. Never operate the FXR Elite or AC adapter in the rain or in wet locations. If the AC adapter's cord is ever cut, discontinue using it and replace the adapter with a new one. To prolong its life, unplug the adapter when not in use. Alternatively, if the FXR Elite is mounted in a rack, plug the adapter into a switched power strip so that you can conveniently turn it off with your other gear. Refer to the label on the adapter for proper operating voltages.

Inputs & Outputs

Despite the FXR Elite's sophistication, it's easy to interface the unit with other equipment. All inputs and outputs are located on the rear panel. Standard 1/4" inputs and outputs and 5-pin DIN MIDI connectors make patching simple. Note: For best audio quality, always use high-quality cables.

Because the FXR Elite is designed for line-level or instrument operation, we don't recommended plugging microphones directly into it. Instead, either use a preamp, a mixer, or an amp's preamp section to boost the level first (use the effects loop output or reverb send from a mixer or amp). The higher signal level from a preamp or effects loop assures an

optimum signal-to-noise ratio in the FXR Elite, keeping hiss and distortion to a minimum.



Line In L & R

The Left and Right inputs are single-ended (unbalanced) with an impedance of 500k ohms. True stereo processing is accomplished by using both inputs in a left/right application. If only one input is used, plug into the left channel; then the signal is automatically routed to both channels' inputs.

Note: Programs that provide panning are most effective if you only send a signal into the left input, since the processor takes that signal and distributes it between the two outputs.

Line Out L & R

The Left and Right outputs are single-ended (unbalanced) with a source impedance of 1k ohm, and can provide a stereo or mono output. When a true stereo signal is applied to the inputs, the resulting output is true stereo. That is, the left and right channels behave as if they were two sep-

arate signal processors. If both outputs are used and the FXR Elite receives a mono input signal, a stereo image is produced. If you're only supplying the FXR Elite with a mono input, use the FXR Elite's Left input. And if you use only one output, choose the Left output, because using this output jack alone with either a mono or stereo input provides a signal combining the processed information from both outputs.

Note: When only the Left output is used, the effect output is a processed combination of both the left and right input signals (the outputs are summed).

If you're only using one input and don't want an output that contains the combined effects from both channels, you can do the following: (1) Plug the cord coming from your audio source (mixer's reverb send, keyboard's output, etc.) into the FXR Elite's left Line In. (2) Connect a cord between the FXR Elite's left Line Out to wherever you want the signal to go (mixer's reverb return, an amp, etc.). (3) Insert a dummy plug into the FXR Elite's right Line In. You can use a 1/4" phone plug with or without a cord attached as a dummy plug. By using a dummy plug in this way, the Left Out has only the left channel's effects.

If you want to use only the right channel instead of the left, follow the same directions, but run your signal through the FXR Elite's right Line In and right Line Out and place the dummy plug into the left Line in.

A variety of input/output combinations may be used with the FXR Elite. One in/one out (mono), one in/two out (stereo image), two in/one out (summed mono), and two in/two out (true stereo) may be achieved.

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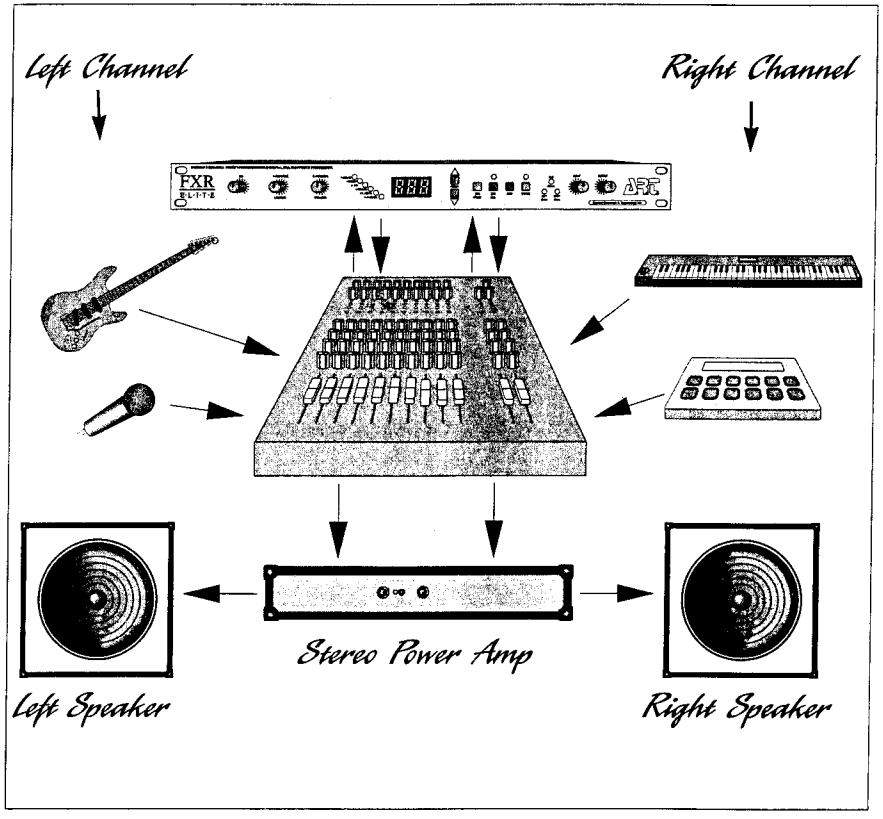
True Stereo Operation

The FXR Elite is designed to operate in true stereo. That is, each channel functions separately from the other, offering a wider variety of effects. Notice in the preset list on page 34 that many presets have one grouping of effects for the left channel and one for the right. These separate combinations can be a powerful tool for mixing multiple instruments, as shown below. For example, guitar and vocals can be given one treatment (say, a 2.5 second Dark Plate reverb) while the keyboard and drum machine in the other channel receive a different treatment (a 0.8 second Bright Plate). For a single instrument in stereo, different ambient or delay treatments on the left and right channels can provide extra size and presence.



Bypass Switch Input

The Bypass Switch Input jack is designed to let you select whether the FXR Elite's effects are in the circuit or out. A footswitch and any 2-conductor cable with 1/4" phone plugs may be used with this jack. The unit can be configured to accept three different types of footswitch: push/push (toggle), momentary normally closed, and momentary normally open. To access these options, push the MIDI/Utility button and then turn the Mix knob (or push the Preset up/down buttons) until you see a lowercase letter "b" in the numeric display. Note: The part of the display farthest to the left, it will blink rapidly. Turn the A Parameter Encoder knob to select from the three modes of operation:

to	push/push (toggle)
nC	momentary, normally closed
no	momentary, normally open

After you've made your selection, push the Save button to store your change. Then press the MIDI/Utility button again; the display stops blinking and reverts to showing the preset number you selected previously.
You can use the Bypass output from an X-15 Ultrafoot to control the FXR Elite's Bypass function by connecting the two units with a standard cord (shielded or unshielded) with 1/4" phone plugs at each end. Check your X-15's manual for setting its correct function. Alternatively, a MIDI footcontroller such as an X-15 can control the Bypass status via MIDI (see pages 21 and 23 for more information).

MIDI In & Out

The jack labeled MIDI In receives the MIDI signal containing MIDI Program Change messages. It enables you to "talk" to the FXR Elite from an external source such as an X-11 or X-15 Ultrafoot, a computer equipped with MIDI ports and associated software, or a sequencer
The MIDI Out jack transmits MIDI information from the FXR Elite to other MIDI-controllable gear such as sequencers, synthesizers, etc.

Power Input

See "Powering The FXR Elite," on page 6.

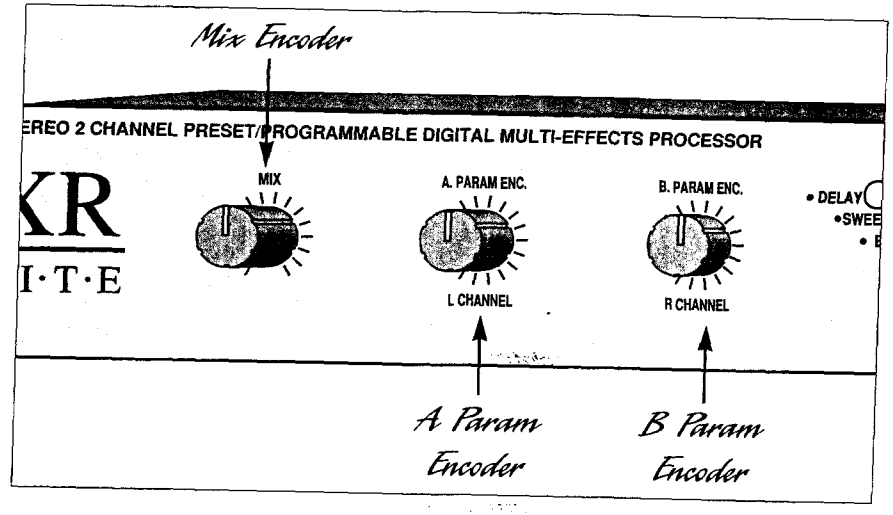
CONTROLS & OPERATION

FRONT-PANEL CONTROLS & INDICATORS

Mix Encoder

You can adjust the mix between dry and effect signals anytime you want. Turning the mix knob from 00 to 99 takes you from a totally dry signal (no effect) to totally wet (effect only). At the midpoint (50), the mix is approximately equal parts effect and dry signal. Whenever you turn the knob, the numeric display changes from showing the current preset number to showing a blinking equals sign (=) and a two-digit number that corresponds to the parameter's level. The mix can also be controlled by another MIDI controller, such as an ART X-15 Ultrafoot; see page 21 for details.

About two seconds after you quit turning the knob, the display reverts to showing the preset number. Note: If you turn the knob, and three lines appear in the numeric display, then that means that the mix parameter cannot be changed in that preset.



Note: To obtain the strongest effect from flanging, chorusing, and panning presets, set the Mix to full effect (99).

If you employ the FXR Elite in a mixer's reverb send/return loop, you'll probably want to turn the mix control to its effects-only setting, since you'll already have plenty of dry signal in the mixer to work with. If you patch the FXR Elite into one of the mixer's input channel effects loops, though, you will likely need to use the mix control, since most mixers are configured so that the channel's entire signal passes through this loop. Consult your mixer's manual for further information.

Note: When the FXR Elite is placed in a guitar or other instrument amp's effects loop, it may be necessary for some dry signal to be present in the FXR's output. (Consult the amp's manual to determine the correct setting.)

A Parameter Encoder

This knob controls one of a program's adjustable parameters, indicated by the LED that glows farthest to the left in the diagonal slash of indicators. Whenever you turn the knob, the numeric display changes from showing the current preset number to showing a blinking equals sign (=) and a two-digit number that corresponds to the parameter's level. Any changes you make with the A Parameter Encoder can be saved in a preset by pressing the Save button. Note: Three lines will appear in the numeric display if the A Parameter Encoder has no effect on a preset.

Note: About two seconds after you quit turning the knob, the display returns to showing the preset number.

B Parameter Encoder

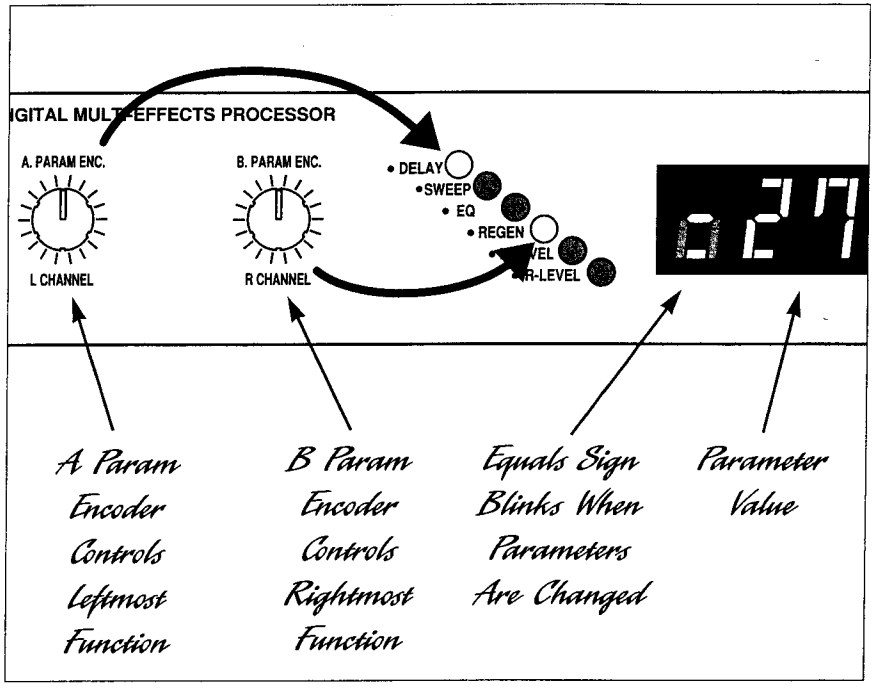
This knob controls one of a program's adjustable parameters, indicated by the LED that glows farthest to the right in the diagonal slash of indicators. Whenever you turn the knob, the numeric display changes from showing the current preset number to showing a blinking equals sign (=) and a two-digit number that corresponds to the parameter's level. Any changes you make with the B Parameter Encoder can be saved in a preset by pressing the Save button. Note: Three lines will appear in the numeric display if the B Parameter Encoder has no effect on a preset.

About two seconds after you quit turning the knob, the display returns to showing the preset number.

Note: The A Parameter and B Parameter can also be controlled via MIDI. See page 21 for further details.

LED Parameter Indicators

The "slash" of LEDs in the middle of the panel tells you which parameters can be changed via the A Parameter Encoder and B Parameter Encoder. The LED glowing farthest to the left corresponds to the A Parameter Encoder, and the LED glowing farthest to the right corresponds to the B Parameter Encoder. When only one LED glows, it corresponds to the A Parameter Encoder, and the B Parameter Encoder has no effect.

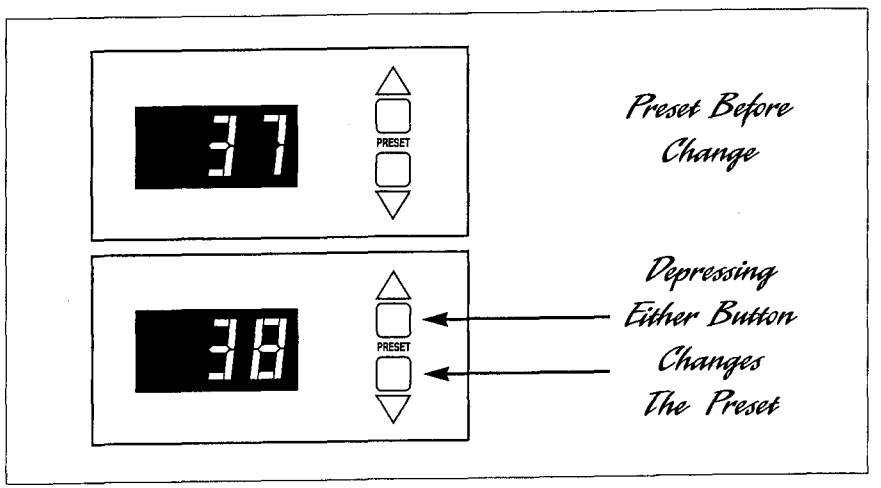


Numeric Display

In Preset Mode, this display shows a 1-, 2-, or 3-digit number that corresponds to the preset currently in use. When you're editing parameters or are in the MIDI/Utility mode, the display tells you what values or parameters you are modifying.

Preset Buttons (Up & Down)

The Preset Up and Down buttons, indicated by white triangles facing up and down on the front panel, select the presets. Each time you depress one of the buttons, the preset changes to the next higher or lower one. Holding either button in for more than about a second steps you through all the presets at a fast rate. Only after you stop depressing the button is the new preset loaded into the processor.



MIDI/Utility

The MIDI/Utility button switches into MIDI/Utility mode, described on page 20.

Dry Kill

The Dry Kill button lets you select only processed signal at the outputs. This is especially useful when a dry signal isn't neccessary, such as when the FXR Elite is patched into the reverb send/return loop of a mixer. When the FRX Elite is placed in a guitar or other instrument amp's effects loop, or between an instrument and amp, it may be necessary for some dry signal to be present in the FXR Elite's output. (Consult the manual with your amp to determine the correct setting.) Whenever the Dry Kill mode is active, the LED above its switch glows.

The Dry Kill status can be stored in any program. To store its setting, select whether you want Dry Kill active, and then press Save. Whenever that preset is recalled in the future, the Dry Kill setting you stored will be recalled, too.

A remote MIDI controller such as ART's X-15 Ultrafoot can be used to change the Dry Kill status. See page 21 for details.

Note: When the FXR Elite is in Bypass mode, the Dry Kill button doesn't affect the current preset. It does, however, stop all direct signal from reaching the output. This can be used as a mute function—perfect for turning off all sound when you take a break or tune up. When you exit the Bypass mode, the Dry Kill function acts normally, allowing only the effect-enhanced signal to reach the FXR Elite's output.

Activating Global Dry Kill Mode

Instead of selecting Dry Kill for each of the 255 presets, you can program the FXR Elite to store a "global" Dry Kill setting for all of the presets at one time. This is especially useful when the FXR Elite is patched into a mixer's reverb send/return loop, or whenever you don't want a dry signal passing through the FXR ELite. Press the MIDI/Utility button, turn the Mix knob until you see a "g" in the LED window, and then turn the A Parameter Encoder until you see "yE" in the window. Hit the Save but-

ton and then the MIDI/Utility button to exit. All presets are now configured so that Dry Kill is activated when you call them up. The Dry Kill LED will briefly flash once every few seconds to remind you that the setting is on and global. (Pressing the Dry Kill button when the unit is programmed for Global Dry Kill mode won't affect the preset's setting.) For more on Global Dry Kill mode, see page 21.

Save

Anytime you make a parameter change or alter the Dry Kill or Mix settings, you can save these changes in a preset by simply pressing the Save button. The change is saved instantly.

Bypass

The bypass switch works exactly opposite of the Dry Kill. When it is depressed, it eliminates all "wet" (processed) signal from the outputs, leaving only the dry signal. Pressing the Bypass button kills the effects signal in the mix. The LED above the Bypass switch blinks continuously whenever the bypass mode is engaged. Pressing Bypass again returns the preset to active status.

Unlike the Dry Kill function, the Bypass setting can't be stored in a preset.

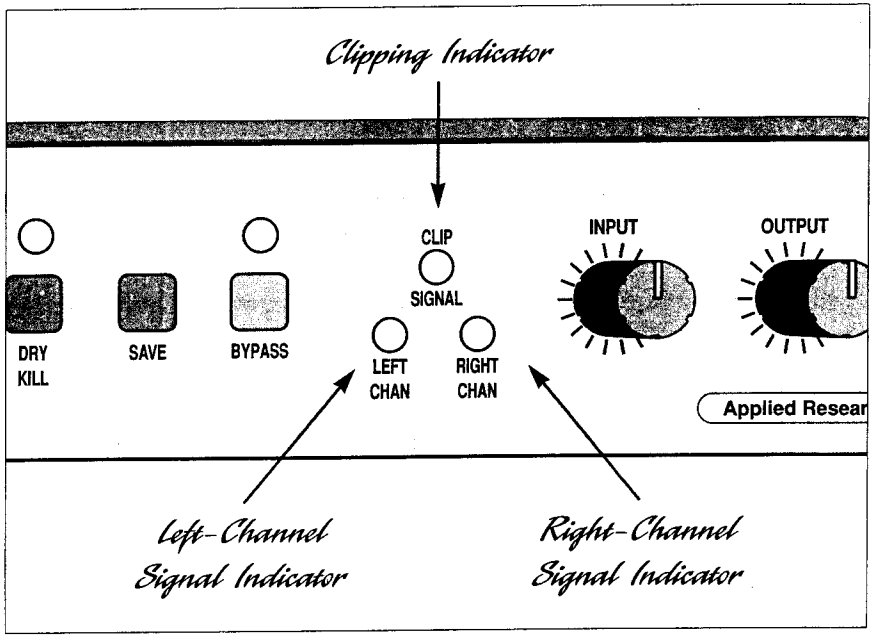
Another way to bypass the unit is to employ the Bypass jack on the rear panel. Most footswitches will work with the FXR Elite, as long as they can be connected by a cord that has a 1/4" phone plug for insertion into the Bypass jack. For further information, refer to the Bypass Switch Input section on page 10.

Restoring Presets To Original Factory Settings

If you want to restore a preset to its factory setting, depress Save and Bypass together. And if you want to restore *all* presets to their factory settings, press the Preset Up, Dry Kill, and Bypass buttons simultaneously. Remember: Only do this if you want to restore *all* of the settings to their factory values.

Clip & Left Channel/Right Channel Signal LEDs

Three front-panel LED indicators show the status of the input signal level as it enters the digital processor. The Left Channel and Right Channel Signal LEDs indicate the presence of an audio signal. If the Clip LED is lit, it indicates that the digital processor is getting too much input, resulting in undesirable distortion, also known as clipping. For maximum dynamic range, the Signal LEDs should be on most of the time, with the Clip LED briefly flashing only on transients (high-energy bursts, such as loud snare drum hits).



Input

The Input knob lets you govern the signal intensity reaching the FXR Elite's input circuitry so that you can set the optimum level. This is important, since a signal's level at this stage has a bearing on the signal-to-noise ratio and the amount of distortion present in the final output. A little experimentation will give you a good feel for the controls. Too little

signal results in a disproportionate amount of noise, while too much (indicated by a constantly glowing Clip LED) sounds distorted and gritty. Use the Signal and Clip LEDs to help guide you, but use your ears, too.

Note: The Input knob's setting is global, meaning that it affects the FXR Elite's input level, regardless of what program is engaged. Its setting can't be stored within programs.

Output

The Output control governs the amount of signal leaving the FXR Elite. Depending on the type of equipment connected to the unit, and its input needs, it's almost mandatory to experiment in order to find the optimum level. Check your other equipment's manual for hints on setting appropriate input levels, or follow the tips outlined in the section above. Use your ears as a guide, too.

The Output knob's setting is global, meaning that it affects the FXR Elite's output level, regardless of what program is engaged. Like the Input control, its setting can't be stored within programs.

MODES OF OPERATION

Preset Mode

After power-up, the unit enters Preset mode. In Preset mode, you can recall and modify the 255 available presets. As many as four parameters can be modified in each preset: mix level, dry kill state, A parameter, and B parameter.

Preset mode is identified by a non-flashing numeric display and one or two non-flashing LEDs lit on the slash of LEDs to the left of the numeric display. The numeric display normally shows the current preset number.

In preset mode, the encoders let you change the mix level, A parameter, and B parameter. All three encoders rotate in either direction, changing the preset parameter they control. Parameter values range from 00 to 99 Going from 00 to 99 requires three revolutions of each knob. Note that the knobs don't spin freely; instead there are click points (or "ticks") throughout their rotation.

On the first tick of an encoder, the parameter value is displayed. Subsequent ticks of that encoder cause the value to change. the value is displayed on the numeric display with a flashing equals sign (=) in front. Changing the value of a parameter does not make permanent changes to the parameter; that is the function of the Save button.

You can tell which parameters the A and B encoders control by the slash of LEDs. Except for presets 121 to 124, which have only one changeable parameter each, every preset's editable parameters are indicated by two LEDs glowing in the display slash. The farthest left glowing LED corresponds to the A parameter. The farthest right LED, if a second one is lit, corresponds to the B parameter. If only one LED is lit, the B encoder serves no function.

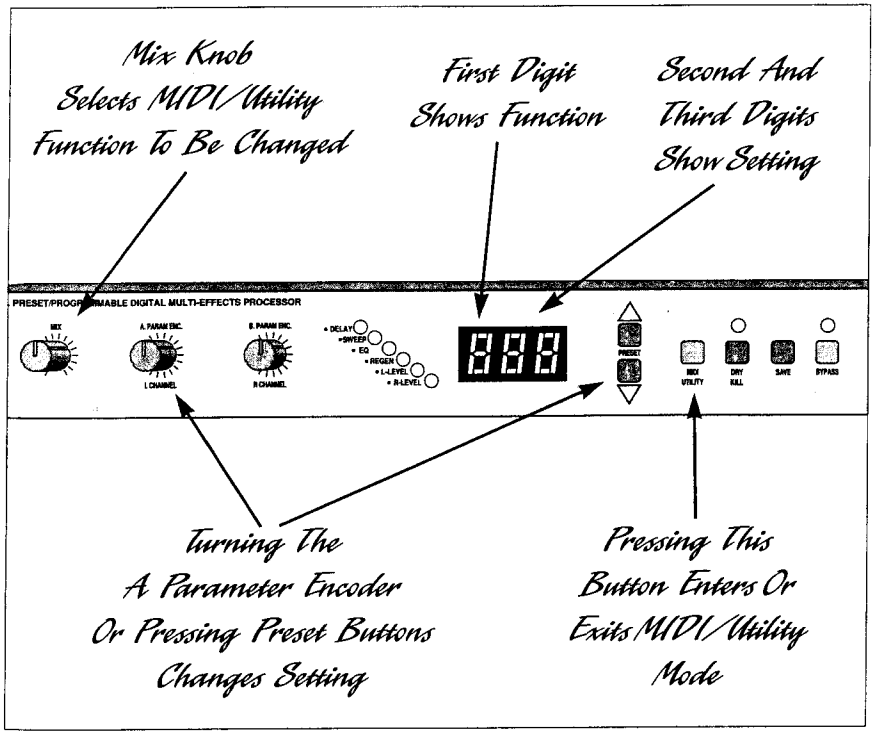
As the A and B encoders are turned, the corresponding LED in the slash flashes in time with the equal sign in the numeric display. Since there's no Mix LED, turning the Mix encoder causes only the numerical display to change from a non-flashing preset number to a flashing equals sign followed by the mix setting (0 to 99).

After approximately two seconds without changes made by the encoder, the display reverts to showing the current preset number.

MIDI/Utility Mode

MIDI/Utility mode is entered and exited by pressing the MIDI/Utility button. It provides access to MIDI control, as well as a way to set the Bypass jack's mode. You can tell that you've entered Utility mode when the letter "c" flashes in the first digit of the numeric display, followed by a number between 1 and 16.

Any changes made in MIDI/Utility mode can be saved. Simply hit Save after making the desired changes. Then push the MIDI/Utility button to exit back to preset mode.



Editing MIDI & Utilities

The following list shows which parameters are controlled in this mode, as well the letter that glows in the numeric display to signify it, the range of options that are offered, and a description of what these options do.

Parameter	Letter	Range	Default	Description
System Channel	c	oF, 1-16	1	MIDI channel the FXR responds to
Omni Mode	o	oF, on	on	MIDI Omni mode
Left Controller	L	oF, 01-1F, 21-71	04	Controller number for A parameter
Right Controller	r	oF, 01-1F, 21-71	0b	Controller number for B parameter
Mix Controller	i	oF, 01-1F, 21-71	oF	Controller number for Mix Level parameter
Dry Kill Controller	d	oF, 01-1F, 21-71	oF	Controller number for Dry Kill parameter
Bypass Controller	b	oF, 01-1F, 21-71	54	Controller number for Bypass parameter
MIDI Program Table	P	n/a	n/a	Translation table for MIDI program changes
Event Monitor	E	oF, on	on	Show changes to A and B parameters when received via MIDI

Parameter	Letter	Range	Default	Description
MIDI Full Dump	F	no, yE	no	Performs a full data dump over MIDI of all current settings and stored presets
Bypass Jack Mode	J	to, nC, no	to	Allows for either push/push (toggle) or normally closed or normally open momentary switches
Global Dry Kill Mode	g	no, yE	no	When on, this overrides the individual preset's Dry Kill setting, and turns it on for all 255 presets

When you select "yE" and then press Save, the FXR Elite performs a MIDI data dump to MIDI storage devices such as sequencers, computers, etc.

For System Channel, "oF" means off (all MIDI ignored, except for System Exclusive messages).

The Bypass options are "to" (toggle push/push switch) and "nC" and "no" (normally closed and normally open momentary switches).

The Left Controller and Right Controller options edit the MIDI Controller number. The following chart shows common MIDI Controllers and their numbers:

MIDI Controllers & Numbers

Here's a list of MIDI Controllers and their numbers, which will help you avoid conflicts if you control the FXR Elite and other MIDI gear in the same setup. The FXR Elite displays controller numbers in hexadecimal. Don't panic! The following table lists hexadecimal numbers, their equivalent decimal numbers, and the common uses for these controller numbers in MIDI. The FXR Elite's default controller parameters are intended to work with the X-15's default values. No changes to either unit should be necessary. Connect a MIDI cable from the X-15's MIDI Out to the FXR Elite's MIDI In, and you're ready to go.

Hexadecimal	Decimal	Controller Description
00	0	Reserved
01	1	Mod Wheel
02	2	Breath Controller
03	3	Undefined
04	4	Foot Controller
05	5	Portamento Time
06	6	Data Entry (MSB)
07	7	Main Volume
08	8	Balance
09	9	Undefined
0A	10	Pan
0B	11	Expression Controller
0C-0F	12-15	Undefined
10-13	16-19	General Purpose Numbers 1-4
14-1F	20-31	Undefined
20	32	Reserved
21-3F	33-63	LSB For Values 0-31
40	64	Damper Pedal (Sustain)
41	65	Portamento
42	66	Sostenuto
43	67	Soft Pedal

Hexadecimal	Decimal	Controller Description
44	68	Undefined
45	69	Hold 2
46-4F	70-79	Undefined
50-53	80-83	General Purpose Numbers 5-8
54-5A	84-90	Undefined
5B	91	External Effects Depth
5C	92	Tremolo Depth
5D	93	Chorus Depth
5E	94	Celeste (Detune) Depth
5F	95	Phaser Depth
60	96	Data Increment
61	97	Data Decrement
62	98	Non-Registered Parameter Number LSB
63	99	Non-Registered Parameter Number MSB
64	100	Registered Parameter Number LSB
65	101	Registered Parameter Number MSB
66-78	102-120	Undefined
- - -	121-127	Reserved For Channel Mode Messages

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MIDI IMPLEMENTATION IN THE FXR ELITE

Channel Voice Messages

The FXR Elite ignores all Channel Voice messages via MIDI, except Control Change and Program Change messages. These messages are only acted upon when the FXR Elite's MIDI channel matches the incoming Channel Voice message or the FXR Elite is set to Omni On mode.

Program Change

Presets can be changed via MIDI with a Program Change message. This limits selection to the first 128 presets. To access higher presets, a translation table known as the MIDI Program Table is employed. It has 255 entries that translate the Program Change request number to a preset number. The default is a one-to-one mapping of Program Change request number to preset number, but this may be changed by the user.

The MMA (MIDI Manufacturers' Association) Bank Select Protocol may be used to directly access all 255 presets in the FXR Elite. All new ART X-15 Ultrafoot controllers employ this protocol, so no modifications are necessary. If you own an older X-15, check with your dealer or contact ART for information on updating its software.

Channel Mode Messages

The FXR Elite responds to the Omni On and Omni Off Channel Mode messages. These must match the FXR Elite's MIDI channel to be recognized.

System Exclusive (SysEx) Messages

The following chart shows the SysEx messages in the FXR Elite:

Byte	Value (in hex)	Description
1	10	Start of SysEx message
2	1a	ART manufacturer's ID

Byte	Value (in hex)	Description
3	0x	MIDI channel
4	17	FXR Elite product ID
5	??	Function ID
...	??	Data
(last)	F7	End of SysEx message

The function ID is taken from one of the following:

Unit Handshake	
Inbound	41
Outbound	01

This function ID may be used to see if an FXR Elite is present on a channel of a MIDI network. There are no data bytes associated with this message.

Parameter Exchange	
Inbound	4b (request)
Inbound	0b (receive)
Outbound	0b (send)

This function ID is used to send or receive the operating state of the FXR Elite. It includes both the options editable in MIDI/Utility mode and the settings of each of the 255 presets.

There are no data bytes in the inbound request for a Parameter Exchange request.

Unit Status	
Inbound	4d
Outbound	0d

This function ID can be used to check the FXR Elite's operating status. There are no data bytes in the inbound message, and two data bytes in the outbound message. The value of the Unit Status is in the second byte, which is the version number of the software.

Other MIDI Notes

- The FXR Elite does not act as a MIDI merger.
- The FXR Elite ignores inbound Active Sensing messages.
- The FXR Elite does not generate Active Sensing messages.
- The System Reset message is ignored

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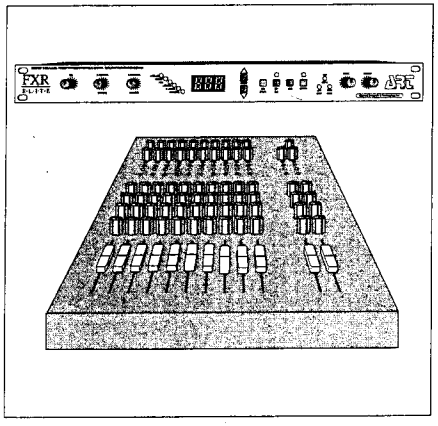
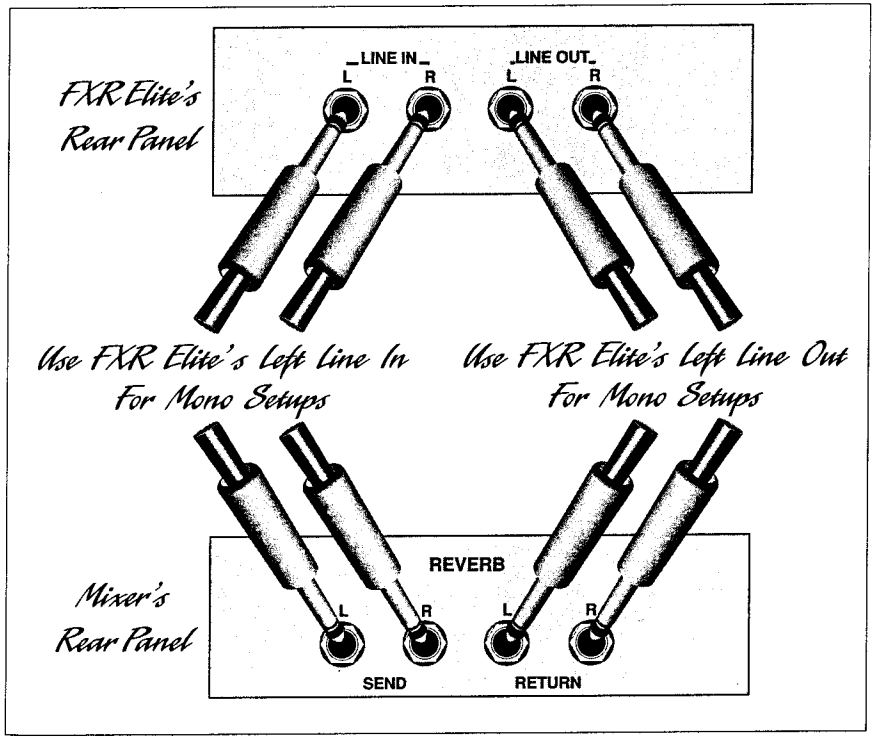
PATCHING THE FXR ELITE INTO A MIXER'S REVERB SEND/RETURN LOOP



To connect the FXR Elite into the reverb send/return loop of a mixer, follow the diagram below. If the mixer has only one input and one output (mono), connect them to the FXR Elite's Left Line In and Left Line Out only. If the mixer has two reverb return jacks for stereo operation, you may connect a second cord between the FXR Elite's Right Line Out and the mixer's second return jack.



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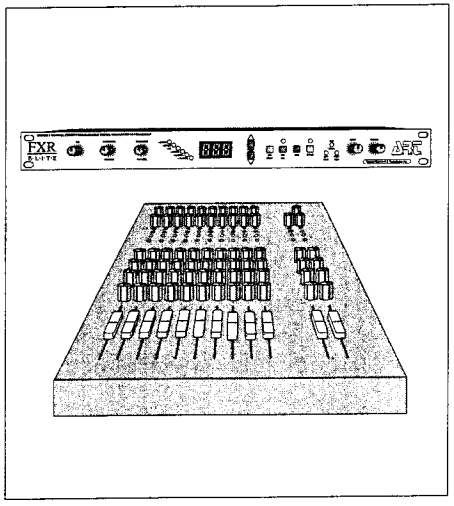
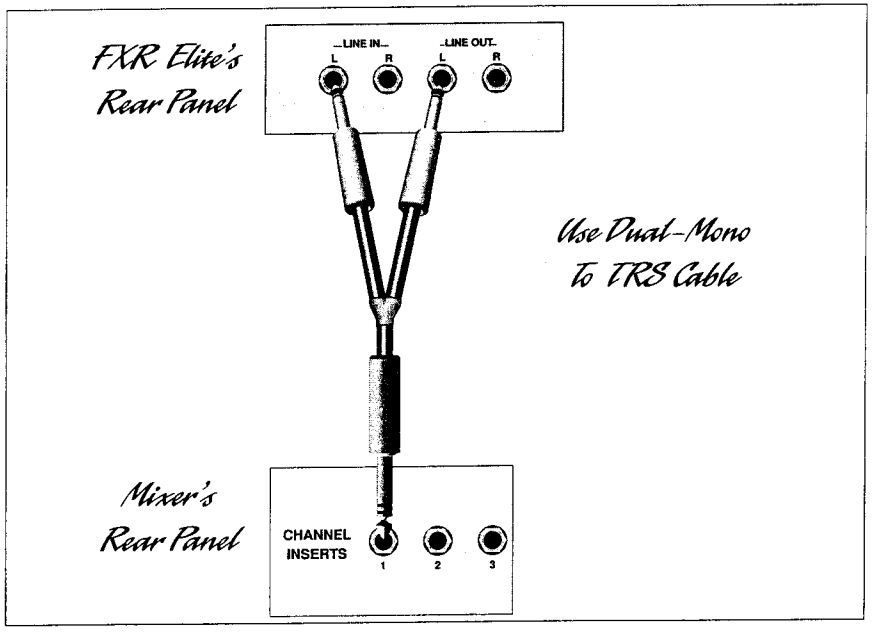
PATCHING THE FXR ELITE INTO ONE MIXER INPUT CHANNEL'S LOOP



Some mixers are designed to accommodate effects on each input channel via "channel inserts," or "patch points." These often consist of a single 1/4" phone jack acting as both send and return, requiring a dual-mono-to-TRS (tip/ring/sleeve) plug configuration. Check your mixer's owner's manual to determine which plug of the dual-mono-to-TRS cable acts as a send, and which acts as a return. If the mixer has individual send and return jacks, simply use two standard cables.



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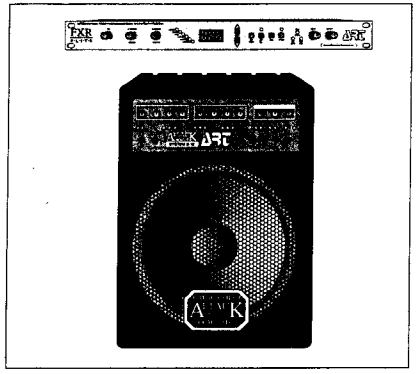
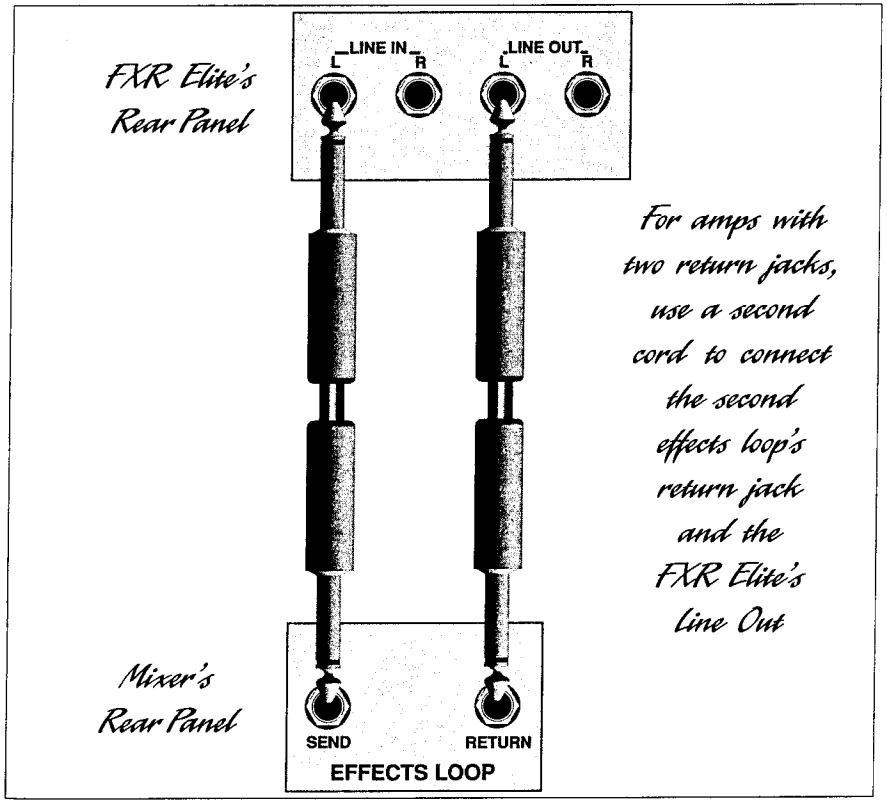
USING THE FXR ELITE IN AN AMP'S EFFECTS LOOP



Patch the FXR Elite into the effects loop of an instrument amplifier as shown below (for mono setups, use the FXR Elite's left Line In and left Line Out jacks). If the amp has two effects-loop return jacks for stereo operation, you may connect a second cord between the FXR Elite's right Line Out and the amp's second return jack.



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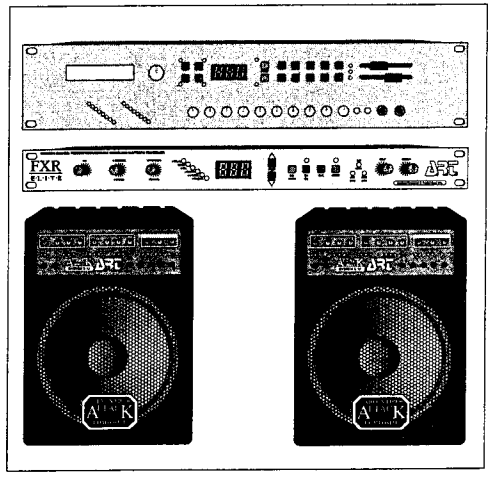
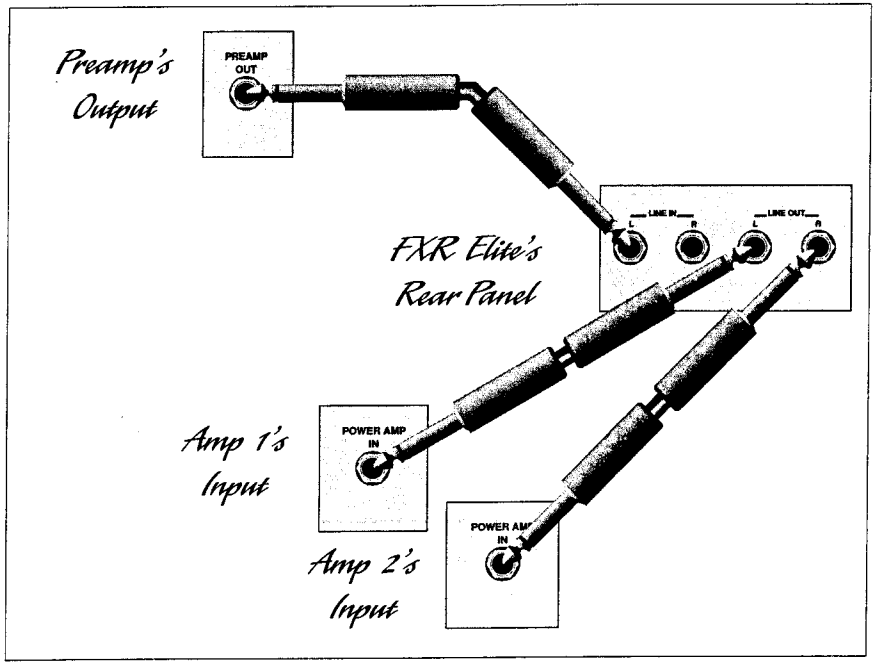
USING THE FXR ELITE IN STEREO WITH A PREAMP & TWO AMPS



Patch the line output from a preamp such as an ART SGX 2000 into the FXR Elite's Left Line In (if the preamp has stereo outputs, patch the second into the FXR Elite's Right Line In). Connect the FXR Elite's Line Outputs to the power amp inputs on two instrument amplifiers. You can also plug directly into the amps' front-panel inputs, but you will need to adjust the FXR Elite's output level and the amps' gain controls accordingly.



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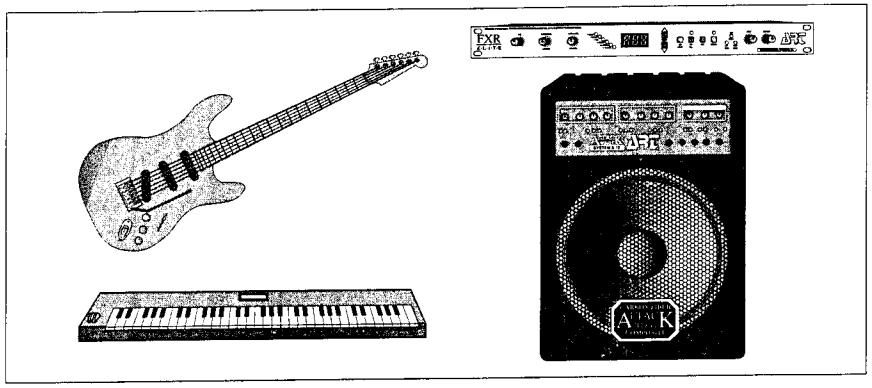
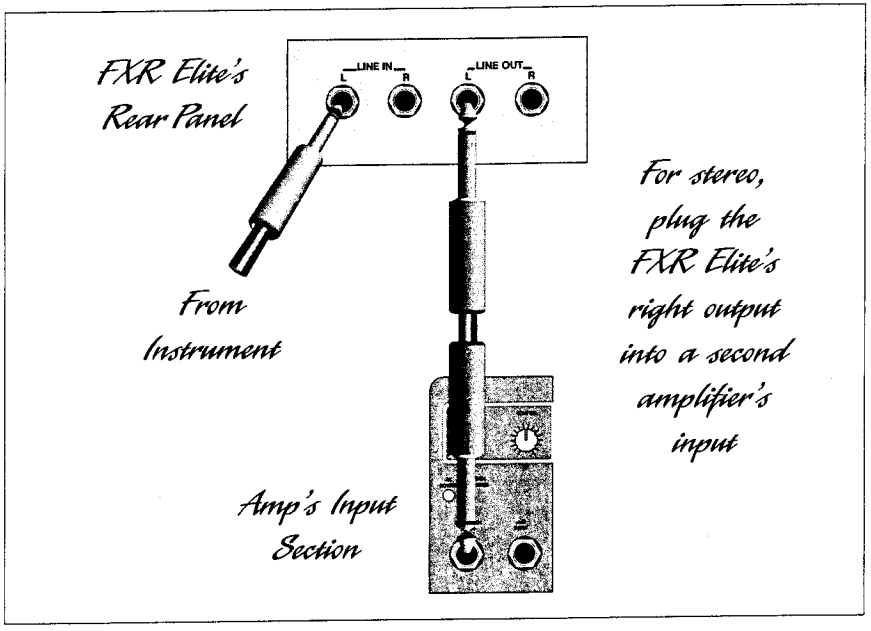
PLUGGING DIRECTLY INTO AN FXR ELITE & AMP



When plugging a guitar, keyboard, or other instrument into the FXR Elite, make sure that there is sufficient signal level coming from the instrument. Pay attention to the Signal LEDs on the FXR Elite's front panel, and use the FXR Elite's input knob and the instrument's volume control to get the best level and signal-to-noise ratio.



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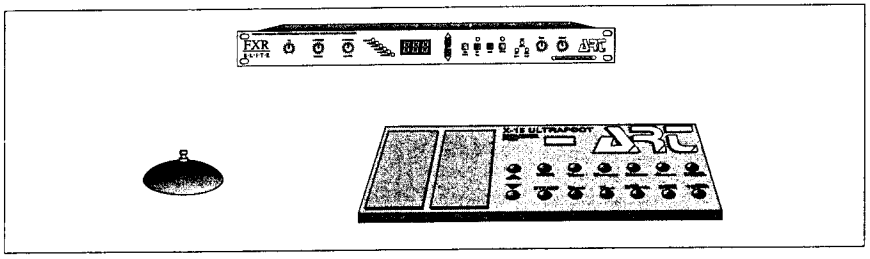
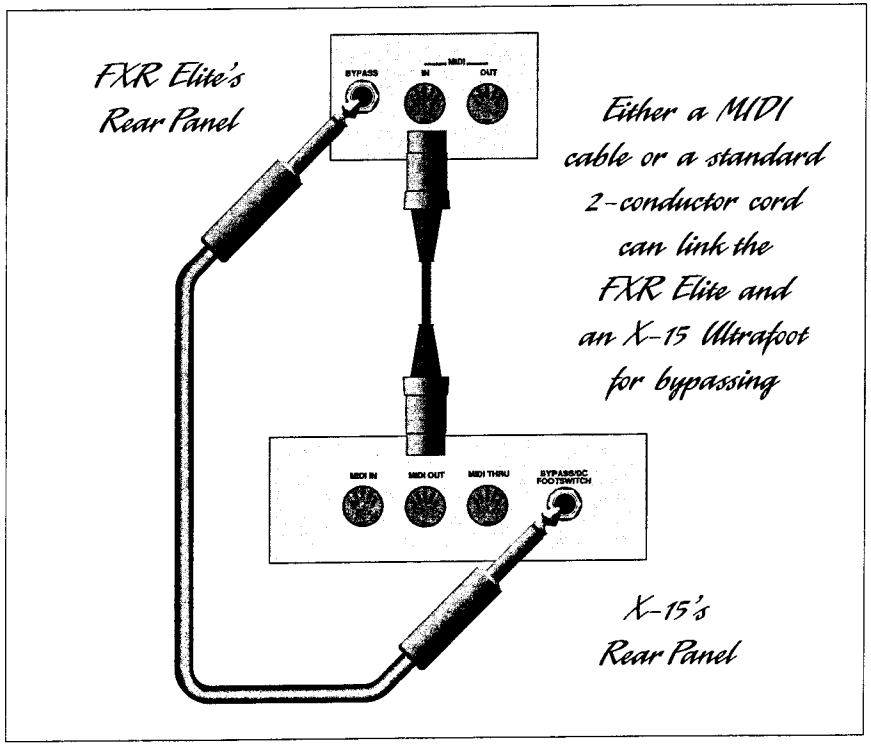
BYPASSING THE FXR ELITE WITH A FOOTSWITCH OR AN X-15



A standard footswitch can be used to activate the FXR Elite's bypass function. In addition, the X-15 Ultrafoot's Bypass output can be connected to the FXR Elite's Bypass input. If you are using MIDI control, the FXR Elite and the X-15 are factory-configured with default settings that allow bypassing.



FXR Preset List

Programs are organized into 16 banks, each with 16 presets. Each line of the following list is laid out as follows ("D" denotes dual, meaning two fully independent channels):

Bank Name (Bank Number)

Preset D Left (or mono) process(es) Right process(es)

The Bank Name is selected with the left knob; the preset is selected with the right knob.

Abbreviations in the list include:

D	The letter "D" between the preset number and the preset's description signifies a dual function. That is, the preset may be used as two independent channels. The first two banks, though listed as complementary, are slightly different so that when they're mixed together, they don't cancel, but rather become lush, sweet-sounding reverbs.
DDL	digital delay
Flat	for tapped delay, this means that the delay times between taps are of equal duration; for gated reverb, it means that the reverb does not decay, but rather is cut off abruptly by the gate
ms	milliseconds (1/1000ths of 1 second)
regen	regeneration, or feedback
s	seconds
Sloped	for gated reverb, it means decaying before an abrupt cutoff
tap	tapped delay

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Reverb (Bank 1)

1	D	Bright 0.5 Small Room
2	D	Warm 0.5 s Small Room
3	D	Bright 0.8 s Small Room
4	D	Bright 1.2 s Medium Room
5	D	Warm 1.2 s Medium Room
6	D	Warm 1.5 s Medium Room
7	D	Bright 1.5 s Medium Room
8	D	Dark 1.5 s Medium Room
9	D	Warm 2.0 s Large Room
10	D	Bright 2.0 s Large Room
11	D	Warm 2.5 s Large Room
12	D	Bright 2.5 s Large Room
13	D	Dark 2.0 s Medium Hall
14	D	Bright 2.0 s Medium Hall
15	D	Dark 3.5 s Medium Hall
16	D	Warm 3.5 s Medium Hall

Reverb (Bank 2)

17	D	Bright 3.5 s Large Hall
18	D	Warm 3.5 s Large Hall
19	D	Bright 5.0 s Large Hall
20	D	Warm 5.0 s Large Hall
21	D	Warm 10.0 s Large Hall
22	D	Bright 10.0 s Large Hall
23	D	Bright 1.2 s Chamber
24	D	Warm 0.8 s Chamber
25	D	Bright 1.5 s Chamber
26	D	Bright 2.5 s Chamber
27	D	Bright 0.5 s Soft Attack Plate
28	D	Bright 0.5 s Hard Attack Plate
29	D	Warm 0.8 s Hard Attack Plate
30	D	Warm 1.5 s Soft Attack Plate
31	D	Warm 2.5 s Soft Attack Plate
32	D	Warm 2.5 s Hard Attack Plate

Gates and Reverse Reverbs (Bank 3)

33		50 ms Flat Dark
34		50 ms Flat Bright
35		50 ms Sloped Bright
36		50 ms Reverse Bright
37		100 ms Flat Bright
38		100ms Sloped Dark
39		100 ms Sloped Bright
40		100 ms Reverse Medium
41		150 ms Flat Bright
42		150 ms Sloped Dark
43		150 ms Sloped Bright
44		150 ms Reverse Medium
45		200 ms Flat Bright
46		200 ms Sloped Dark
47		200 ms Sloped Bright
48		200 ms Reverse Medium

Delays (Bank 4)

49	D	Left 50 ms/Right 100 ms 50% regen
50	D	Left 75 ms/Right 150 ms 50% regen
51	D	Left 120 ms/Right 190 ms 50% regen
52	D	Left 180 ms/Right 320 ms 50% regen
53		50 ms 3 tap Sloped multitap L/R/L
54		75 ms 3 tap Flat L/R/L
55		100 ms 3 tap Sloped L/R/L
56		125 ms 3 tap Sloped L/R/L
57	D	Left 25 ms/Right 35 ms Slap
58	D	Left 35 ms/Right 50 ms Slap
59	D	Left 65 ms/Right 80 ms Slap
60	D	Left 100 ms/Right 120 ms Slap
61		80 ms ping pong delay L/R/L 60% regen
62		120 ms ping pong delay L/R/L 60% regen
63		160 ms ping pong delay L/R/L 60% regen
64		175 ms ping pong delay L/R/L 60% regen

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Reverb/Delays (Bank 5)

65		0.5 s Room Bright w/100ms Slap DDL
66		0.8 s Room Bright w/125 ms Slap DDL
67		1.2 s Room Bright w/175 ms 33% regen DDL
68		1.5 s Room Bright w/200 ms 50% regen DDL
69		2.0 s Hall Warm w/50 ms double DDL
70		2.5 s Hall Bright w/100 ms double DDL
71		3.5 s Hall Warm w/175 ms 33% regen DDL
72		5.0 s Hall Bright w/200 ms 50% regen DDL
73		1.5 s Chamber Bright w/100 ms Slap DDL
74		2.0 s Chamber Warm w/150 ms Slap DDL
75		2.5 s Chamber Warm w/175 ms 33% regen DDL
76		5.0 s Chamber Warm w/225 ms 50% regen DDL
77		0.5 s Plate Bright w/75 ms double DDL
78		1.0 s Plate Bright w/125 ms double DDL
79		2.5 s Plate Bright w/75 ms double DDL
80		3.5 s Plate Bright w/125 ms double DDL

Delays/Flanger and Chorus (Bank 6)

81	D	Slow wide flange 33% regen
82	D	Medium flange 33% regen
83	D	Tremolo flange 25% regen
84	D	Slow wide chorus
85	D	Medium wide chorus
86	D	Tremolo chorus
87	D	Slow wide flange w/150ms 20% regen DDL
88	D	Medium flange w/125 ms 40% regen DDL
89	D	Tremolo flange w/100 ms 20% regen DDL
90	D	Slow wide flange w/200 ms 33% regen DDL
91	D	Medium wide flange w/75 ms Slap DDL
92	D	Slow wide chorus w/50 ms 33% regen DDL
93	D	Medium wide chorus w/75 ms 30% regen DDL
94	D	Medium wide chorus w/125 ms 25% regen DDL
95	D	Tremolo chorus w/70 ms Slap DDL
96	D	Tremolo chorus w/200 ms 33% regen DDL

Reverbs/Flanger or Chorus (Bank 7)

97	Slow wide flange w/0.8 s Medium Bright Chamber reverb
98	Medium slow wide flange w/0.8 s Medium Bright Plate reverb
99	Medium wide flange w/0.8 s Medium Bright Plate reverb
100	Tremolo flange w/0.8 s Medium Bright Room reverb
101	Slow side chorus w/0.8 s Medium Bright Room reverb
102	Medium slow wide chorus w/1.0 s Medium Bright Hall reverb
103	Medium wide chorus w/1.5 s Medium Bright Hall reverb
104	Tremolo chorus w/0.8 s Medium Bright Plate reverb
105	Slow wide flange w/2.0 s Medium Warm Room reverb
106	Medium slow wide flange w/1.5 s Medium Warm Room reverb
107	Medium wide flange w/1.0 s Medium Warm Room reverb
108	Tremolo flange w/0.5 s Small Warm Room reverb
109	Slow wide chorus w/1.5 s Medium Warm Room reverb
110	Medium slow wide chorus w/2.0 s Medium Warm Hall reverb
111	Medium wide chorus w/2.0 s Medium Bright Hall reverb
112	Tremolo chorus w/1.0 s Medium Warm Room reverb

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Delay/Reverb/Flanger or Chorus/Special Effects (Bank 8)

113		0.8 s Bright Room reverb + Left 175 ms/Right 200 ms 40% regen DDL + medium wide chorus
114		1.5 s Warm Room reverb + Left 45 ms/Right 55 ms Slap DDL + medium wide chorus
115		2.5 s Warm Room reverb + Left 80 ms/Right 120 ms 30% regen DDL + slow wide chorus
116		3.0 s Sizzle Plate reverb + Left 45 ms/Right 55 ms Slap DDL + Tremolo chorus
117		0.5 s Bright Plate reverb + Left 200 ms/Right 175 ms 40% regen DDL + medium wide flange
118		1.5 s Warm Room reverb + Left 45 ms/Right 55 ms Slap DDL + medium wide flange
119		2.5 s Warm Room reverb + Left 80 ms/Right 120 ms 30% regen DDL + slow wide flange
120		3.0 s Sizzle Plate reverb + Left 45 ms/Right 55 ms Slap DDL + Tremolo flange
121	D	Slow panner
122	D	Medium panner
123	D	Fast Panner
124		1.5 s Bright Hall reverb w/Slow panner
125		1.5 s Bright Hall reverb w/Medium panner
126		1.5 s Bright Hall reverb w/Fast panner
127		2.5 s Bright Hall reverb + 200ms DDL + medium panner

Reverb + Reverb (Bank 9)

128	D	0.5 s Dark Plate	0.5 s Bright Plate
129	D	0.5 s Dark Room	0.8 s Bright Room
130	D	0.5 s Dark Chamber	1.2 s Bright Chamber
131	D	0.5 s Dark Plate	1.8 s Bright Plate
132	D	0.8 s Dark Room	0.5 s Bright Room
133	D	0.5 s Dark Chamber	0.8 s Bright Chamber
134	D	0.5 s Dark Plate	1.2 s Bright Plate
135	D	0.5 s Dark Room	1.8 s Bright Room
136	D	1.2 s Dark Chamber	0.8 s Bright Chamber
137	D	0.8 s Dark Plate	0.8 s Bright Plate
138	D	0.8 s Dark Room	1.8 s Bright Room
139	D	0.8 s Dark Chamber	2.5 s Bright Chamber
140	D	1.2 s Dark Plate	0.8 s Bright Plate
141	D	1.2 s Dark Room	1.2 s Bright Room
142	D	1.2 s Dark Chamber	1.8 s Bright Chamber
143	D	1.2 s Dark Hall	2.5 s Bright Hall

Reverb + Reverb (Bank 10)

144	D	1.8 s Dark Plate	0.8 s Bright Plate
145	D	1.8 s Dark Room	1.2 s Bright Room
146	D	1.8 s Dark Chamber	1.8 s Bright Chamber
147	D	1.8 s Dark Hall	2.5 s Bright Hall
148	D	2.5 s Dark Plate	0.5 s Bright Plate
149	D	2.5 s Dark Room	1.2 s Bright Room
150	D	2.5 s Dark Chamber	1.8 s Bright Chamber
151	D	2.5 s Dark Hall	3.5 s Bright Hall
152	D	3.5 s Dark Plate	0.8 s Bright Plate
153	D	3.5 s Dark Room	1.2 s Bright Room
154	D	3.5 s Dark Chamber	1.8 s Bright Chamber
155	D	3.5 s Dark Hall	2.5 s Bright Hall
156	D	5 s Dark Room	1.8 s Bright Room
157	D	5 s Dark Plate	3.5 s Bright Hall
158	D	10 s Dark Hall	1.8 s Bright Chamber
159	D	10 s Warm Hall	3.5 s Bright Hall

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Delay + Delay (Bank 11)

160	D	1 tap 25 ms Slap	1 tap 225 ms 50% regen
161	D	1 tap 55 ms Slap	1 tap 265 ms 50% regen
162	D	1 tap 65 ms Slap	1 tap 235 ms 50% regen
163	D	1 tap 100 ms Slap	1 tap 325 ms 50% regen
164	D	1 tap 25 ms 50% regen	1 tap 50 ms 40% regen
165	D	1 tap 45 ms 50% regen	1 tap 90 ms 35% regen
166	D	1 tap 75 ms 50% regen	1 tap 150 ms 35% regen
167	D	1 tap 100 ms 50% regen	1 tap 200 ms 35% regen
168	D	1 tap 125 ms 50% regen	1 tap 250 ms 35% regen
169	D	1 tap 165 ms 50% regen	1 tap 330 ms 35% regen
170	D	1 tap 250 ms 50% regen	1 tap 125 ms 50% regen
171	D	1 tap 350 ms 50% regen	1 tap 150 ms 50% regen
172	D	1 tap 450 ms 50% regen	1 tap 50 ms 50% regen
173	D	3 tap 175 ms Flat 0% regen	3 tap 325 ms Flat 0% regen
174	D	3 tap 125 ms Flat 0% regen	3 tap 200 ms Flat 0% regen
175	D	3 tap 80 ms Flat 0% regen	3 tap 120 ms Flat 0% regen

Delays + Gated Reverb (Bank 12)

176	D	1 tap 200 ms 33% regen DDL	50ms Bright gate
177	D	1 tap 190 ms 33% regen DDL	50ms Dark gate
178	D	1 tap 180 ms 33% regen DDL	100ms Bright gate
179	D	1 tap 150 ms 33% regen DDL	100ms Dark gate
180	D	1 tap 200 ms 33% regen DDL	150ms Bright gate
181	D	1 tap 190 ms 33% regen DDL	150ms Dark gate
182	D	1 tap 180 ms 33% regen DDL	200ms Bright gate
183	D	1 tap 150 ms 33% regen DDL	200ms Dark gate
184	D	1 tap 35 ms 0% regen DDL	50ms Bright gate
185	D	1 tap 90 ms 40% regen DDL	50ms Dark gate
186	D	1 tap 65 ms 0% regen DDL	100ms Bright gate
187	D	1 tap 120 ms 40% regen DDL	100ms Dark gate
188	D	1 tap 75 ms 0% regen DDL	150ms Bright gate
189	D	1 tap 150 ms 40% regen DDL	150ms Dark gate
190	D	1 tap 100 ms 0% regen DDL	200ms Bright gate
191	D	1 tap 200 ms 40% regen DDL	200ms Dark gate

Flanger/Chorus + Gated Reverb (Bank 13)

192	D	Medium Slow wide chorus	50ms Bright gate
193	D	Medium Fast wide chorus	50ms Dark gate
194	D	Medium Slow wide flange	50ms Bright gate
195	D	Medium Fast wide flange	50ms Dark gate
196	D	Slow wide chorus	100ms Bright gate
197	D	Tremolo chorus	100ms Dark gate
198	D	Slow wide flange	100ms Bright gate
199	D	Fast flange	100ms Dark gate
200	D	Medium Slow wide chorus	150ms Bright gate
201	D	Medium Slow wide chorus	150ms Dark gate
202	D	Medium Slow wide flange	150ms Bright gate
203	D	Medium Slow wide flange	150ms Dark gate
204	D	Medium Slow wide chorus	200ms Bright gate
205	D	Tremolo chorus	200ms Dark gate
206	D	Medium Slow wide chorus	200ms Bright gate
207	D	Fast Flange	200ms Dark gate

Flanger/Chorus/Panner + Flanger/Chorus/Panner (Bank 14)

208	D	Slow wide flange 50% regen	Slow wide flange 50% regen
209	D	Slow wide flange 75% regen	Slow wide flange 75% regen
210	D	Medium wide flange 50% regen	Medium wide flange 50% regen
211	D	Medium wide flange 75% regen	Medium wide flange 75% regen
212	D	Tremolo flange 33% regen	Tremolo flange 33% regen
213	D	Tremolo flange 50% regen	Tremolo flange 50% regen
214	D	Slow wide chorus	Slow wide chorus
215	D	Medium slow chorus	Medium slow chorus
216	D	Medium wide chorus	Medium wide chorus
217	D	Medium fast chorus	Medium fast chorus
218	D	Fast chorus	Fast chorus
219	D	Tremolo chorus	Tremolo chorus
220	D	Very Slow panner	Very Slow panner
221	D	Medium Slow panner	Medium Slow panner
222	D	Medium Fast panner	Medium Fast panner
223	D	Ultra Fast panner	Ultra Fast panner

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Reverb/Delay + Flanger/Chorus (Bank 15)

224	D	0.5 s Room Bright w/100 ms Slap DDL	Medium wide chorus
225	D	0.8 s Room Bright w/125 ms Slap DDL	Medium wide flange
226	D	1.2 s Room Bright w/175 ms 33% regen DDL	Medium wide chorus
227	D	1.5 s Room Bright w/200 ms 50% regen DDL	Medium wide flange
228	D	2.0 s Hall Warm w/50 ms double DDL	Slow wide chorus
229	D	2.0 s Hall Bright w/100 ms double DDL	Slow wide flange
230	D	2.5 s Hall Warm w/175 ms 33% regen DDL	Tremolo chorus
231	D	3.5 s Hall Bright w/200 ms 50% regen DDL	Tremolo flange
232	D	1.5 s Chamber Bright w/100 ms Slap DDL	Tremolo chorus
233	D	2.0 s Chamber Warm w/150 ms Slap DDL	Tremolo flange
234	D	2.5 s Chamber Warm w/175 ms 33% regen DDL	Slow wide chorus
235	D	5.0 s Chamber Warm w/225 ms 50% regen DDL	Slow wide flange
236	D	0.5 s Plate Bright w/75 ms double DDL	Medium wide chorus
237	D	1.0 s Plate Bright w/125 ms double DDL	Medium wide flange
238	D	2.5 s Plate Bright w/75 ms double DDL	Tremolo chorus
239	D	3.5 s Plate Bright w/125 ms double DDL	Tremolo flange

Reverb + Delay/Flanger/Chorus/Special Effects (Bank 16)

240	D	1.8 s Warm Room	Slow wide flange 33% regen
241	D	1.2 s Bright Room	Medium flange 33% regen
242	D	1.8 s Warm Room	Tremolo flange 25% regen
243	D	1.8 s Bright Plate	Slow wide chorus
244	D	1.8 s Warm Chamber	Medium wide chorus
245	D	2.5 s Bright Hall	Tremolo chorus
246	D	2.5 s Bright Plate	Slow wide flange w/150ms 20% regen DDL
247	D	1.8 s Warm Hall	Medium flange w/125 ms 40% regen DDL
248	D	1.8 s Bright Plate	Tremolo flange w/100 ms 20% regen DDL
249	D	1.2 s Warm Room	Slow wide flange w/200 ms 33% regen DDL
250	D	1.2 s Bright Plate	Medium wide flange w/75 ms Slap DDL
251	D	2.5 s Warm Chamber	Chorus w/50 ms 33% regen DDL
252	D	1.8 s Bright Hall	Medium wide chorus w/75 ms 30% regen DDL
253	D	1.2 s Warm Room	Medium wide chorus w/125 ms 25% regen DDL
254	D	1.2 s Bright Plate	Tremolo chorus w/70 ms Slap DDL
255	D	2.5 s Bright Plate	Slow wide chorus w/125 ms Slap DDL

Changing Parameters Within Presets

The FXR Elite allows you to control parameters within each preset, either by adjusting the A Param Enc. or B Param Enc. knobs, or via MIDI. (For more on MIDI control for the FXR Elite, see pages 20 through 27.) The chart below indicates which parameters can be altered within each preset. Exceptions and further explanation are included after the chart.

Bank	Preset	A Param Enc	B Param Enc
1	1-16	Reverb Level	Reverb Contour
2	17-32	Reverb Level	Reverb Contour
3	33-48	Reverb Level	Reverb Contour
4	49-64	Delay Time	Delay Regen
5	65-80	Delay Time	Delay Regen
6	81-83	Sweep	Regen
6	84-86	Sweep	No function
6	87-91	Flanger Regen	Delay Regen
6	92-96	Chorus Sweep	Delay Regen
7	97-112	Flanger Sweep	Reverb Contour
8	113-120	Delay Time	Delay Regen
8	121-124	Pan Sweep	No function
8	125-128	Reverb Contour	Pan Sweep
9	129-144	Left Level	Right Level
10	145-160	Left Level	Right Level
11	161-176	Left Level	Right Level
12	177-192	Delay Regen	Reverb Level
13	193-208	Sweep	Level
14	209-214	Sweep	Regen
14	215-224	Sweep	No function
15	225-240	Delay Regen	Sweep
16	241-243	Reverb Level	Flanger Regen
16	244-246	Reverb Level	Chorus Sweep
16	247-251	Flanger Regen	Delay Regen
16	252-255	Chorus Sweep	Delay Regen

Notes On Editable Parameters

Presets 1-48. Reverb Contour sets the cutoff frequency of a lowpass filter, which lets you adjust the way in which the reverb's high frequencies die away as the reverb decays. Reverb Contour is indicated on the front panel by "EQ."

Presets 193-208. None of the gate parameters are controllable. Only the parameters shown in the table are adjustable.

Presets 247-255. Reverb parameters are not controllable in these presets.

All presets with adjustable Sweep parameter. For flanger and chorus, the Sweep control reduces width and increases speed as you turn the parameter encoder clockwise. For the panner, turning the parameter encoder clockwise increases the speed.

Battery Backup

When the FXR Elite's power is turned off, the edited programs are retained via battery-powered backup memory. This, as well as the last preset used and the MIDI Channel, will be active the next time the unit is powered up. The battery should be able to keep all memory information retained for four years. When the FXR Elite is turned on, a battery check is made. If the battery needs replacement, the display will flash "bAt" until a button is pressed. The unit will operate normally, but a new battery should be installed. If the battery needs replacement, contact our Customer Service department.

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ART FXR Elite Specifications

Dimensions		1.75" H x 19" W x 4.25" D, all-steel case
Weight		4 lbs., 10.7 oz
Connections		Stereo In/Out 1/4" phone
Presets		255
Input impedance		500k ohms
Output impedance		1k ohm
Maximum input level		>+14dBv
Maximum output level		>+14dBv
Dynamic range	dry	>100dB (A-weighted)
	wet	>80dB (A-weighted)
Total harmonic distortion (THD)	dry	<.015% @ 1kHz
	wet	<.04% @ 1kHz
Channel separation		>65dB
MIDI receive channel		1-16, OMNI (all), Off
MIDI Programs		May be assigned to any preset number

ART retains a policy of constant product improvement. Therefore, specifications are subject to change without notice.

Designed and manufactured in the United States of America.

Applied Research & Technology, Inc.
215 Tremont Street
Rochester, NY 14608

(716) 436-2720
(716) 436-3942 (FAX)

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WARRANTY & SERVICE INFORMATION

LIMITED WARRANTY

Warranty service for this unit will be provided by Applied Research & Technology, Inc. in accordance with the following warrant statement.

Applied Research & Technology, Inc. (ART) warrants to the original purchaser that this product and the components thereof will be free from defects in workmanship and materials for a period of one year from the date of purchase. Applied Research & Technology, Inc. will, without charge, repair or replace, at its option, defective product or component parts upon prepaid delivery to the factory service department or authorized service center, accompanied by proof of purchase date in the form of a valid sales receipt.

EXCLUSIONS: This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs. This warranty is void if the serial number is altered, defaced, or removed.

ART reserves the right to make changes in design or make additions to or improvements upon this product without any obligation to install the same on products previously manufactured.

ART shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific rights and you may also have other rights which vary from state to state.

For units purchased outside the United States, service will be provided by an authorized distributor of Applied Research & Technology, Inc.

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Service

The following information is provided in the unlikely event that your unit requires service.

1) Be sure that the unit is the cause of the problem. Check to make sure the unit has power supplied, all cables are connected correctly, and the cables themselves are in working condition.

2) If you find the unit to be at fault, write down a description of the problem, including how and when the problem occurs.

3) Call the factory for a Return Authorization (RA) number.

4) Pack the unit in its original carton or a reasonable substitute. The packing box is not recommended for a shipping carton. Put the packaged unit in another box for shipping. Print the RA number clearly under the address.

5) Include with your unit: a return shipping address (we cannot ship to a P.O. Box), a copy of your purchase receipt, a daytime phone number, and a description of the problem.

6) Ship the unit to:
APPLIED RESEARCH & TECHNOLOGY, INC.
215 TREMONT STREET
ROCHESTER, NY 14608
ATTN: REPAIR DEPARTMENT
OUR NEW AREA CODE IS 585
RA # _____

7) Contact our customer service department at (716) 436-2720 for your Return Authorization number or questions regarding repairs. Customer Service hours are 9:00 AM to 4:00 PM Eastern Time, Monday through Friday.

Customer Service

You may contact ART's Customer Service Department between the hours of 9:00 AM and 4:00 PM Eastern Time Monday through Friday. The Customer Service Department will answer technical questions about ART products and provide information concerning service.