1   Welcome

The ASR-X Pro Experience Begins

Congratulations on your purchase of the ENSONIQ ASR-X Pro Advanced Sampler/Resampler. This box is the ultimate groove machine—ideal for deejays and musicians who enjoy grabbing sounds out of the air and turning them into mind-boggling loops.

This book—the ASR-X Pro Reference Manual—contains detailed information on all of the ASR-X Pro's many features. If you'd like to start getting to know your ASR-X Pro through a hands-on tour of its hot spots, take a look at the ASR-X Pro User's Guide, which contains step-by-step quick-starts for the major features of the ASR-X Pro, a list of all of its built-in sounds and descriptions of its insert effect parameters.

For the latest information on the ASR-X Pro and other ENSONIQ products, visit ENSONIQ's World Wide Web site at *http://www.ensoniq.com*.
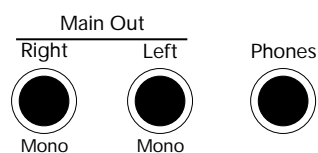
What Else is in the ASR-X Pro Box?

The following items are included with every ASR-X Pro shipped from the ENSONIQ factory:

- ENSONIQ X-Audio Sampling CD Volume 1—Producers' Mix
- hex wrench

- ENSONIQ ASR-X Pro User's Guide
- ENSONIQ ASR-X Pro Reference Manual
- AC power cable

Setting Up the ASR-X Pro

Using the Audio Outputs

As shipped from ENSONIQ, the ASR-X Pro provides two ways to listen to the sounds it makes:

- You can listen to the ASR-X Pro using headphones by plugging your headphones into the 1/4" Phones jack on the ASR-X Pro rear panel.
- Using 1/4" audio cables, you can connect the Left and Right Main Outs to a mixer or amplifier. The ASR-X Pro outputs produce a great-sounding stereo image. If you'd prefer to use the ASR-X Pro in mono, connect only the Left or Right Main Out jack to your mixer or amplifier, and make sure nothing is plugged into the other Main Out jack.

Warning: You can use 1/4" to RCA-type adapters to connect the ASR-X Pro outputs to a home stereo, but do so with care, since the dynamic range of the ASR-X Pro is much greater than that of a CD or record, and could damage your speakers. See "Setting the Output volume" below.

Aux Out 1, Aux Out 2, Aux Out 3, Aux Out 4

These four pairs of stereo outputs become available for use with the purchase and installation of an ENSONIQ X-8 output expander board. You can connect them to a mixer, amplifier or stereo system.

Setting the Output Volume

The ASR-X Pro, like all digital equipment, produces its best fidelity when its front panel Volume knob is turned all the way up—when using the ASR-X Pro with a mixer or amplifier, use the input level controls on the mixer or amplifier to find a usable volume setting for the ASR-X Pro. When the ASR-X Pro is connected to a home stereo, turn the ASR-X Pro Volume knob all the way down, power up (see below), and, while playing its pads with maximum force, slowly turn up the ASR-X Pro Volume knob to find a level that sounds good but doesn't cause the stereo's inputs to distort.

The Audio Inputs

The two Audio Input jacks on the rear panel of the ASR-X Pro allow you to sample audio from a microphone or line-level audio source—such as a CD player or phonograph—connected to your ASR-X Pro. The use of the Audio Inputs is described in Chapter 5.

Making MIDI Connections
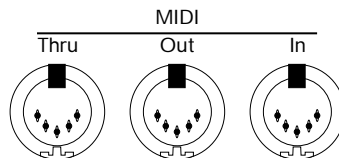
The ASR-X Pro has powerful MIDI capabilities. The rear panel MIDI jacks are:

- MIDI Thru—This jack is used when the ASR-X Pro is part of a MIDI daisy-chain, with multiple MIDI devices connected in a row. Any MIDI data that the ASR-X Pro receives will be passed along from this jack to the MIDI In of the next device in the series.
- MIDI Out—The ASR-X Pro sends MIDI data out of this jack. Since the ASR-X Pro can play external MIDI sounds from its pads or sequencer tracks, or provide a timing reference for an external sequencer, connect this jack to the MIDI In of a MIDI sound module, sequencer, or MIDI patchbay.
- MIDI In—The ASR-X Pro responds to MIDI data sent through a MIDI cable connecting this jack to the MIDI Out of an external MIDI controller, sequencer, storage device or MIDI patchbay. When the ASR-X Pro is receiving MIDI data, its front-panel MIDI LED flashes.

Using a Foot Switch with the ASR-X Pro

Connecting a foot switch to the ASR-X Pro's rear-panel Dual Foot Switch jack allows you to use a foot switch for conventional purposes—as a sustain pedal, for example—or for performing certain operations hands-free. Chapter 7 describes the many possible uses of a foot switch with the ASR-X Pro. The ASR-X Pro can accommodate a dual foot switch—such as ENSONIQ's SW-10—or a single foot switch, such as ENSONIQ's SW-2 or SW-6.
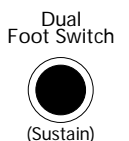
Connecting SCSI Devices

To learn how to connect SCSI devices to your ASR-X Pro, see Chapter 8.

Powering the ASR-X Pro

Connect one end of the supplied AC cable to the ASR-X Pro's line jack—located next to the On/Off switch on the rear panel—and the other end to a grounded AC outlet. The ASR-X Pro works with all standard voltages.

Turning On the ASR-X Pro

When powering up the ASR-X Pro, as with any audio gear, turn down your monitoring system to avoid any unwanted level spikes. To turn on the ASR-X Pro, press in the top of the rear-panel On switch.

The ASR-X Pro Controls

Each section of the ASR-X Pro provides buttons for its related tasks. In addition, there are a set of common controls and indicators that you'll find yourself using again and again.

The ASR-X Pro Display

The display located in the center of the ASR-X Pro front panel is your doorway to all of the ASR-X Pro's workings. Information relating to everything you do is presented on this display. Each chapter in this manual describes what you'll see while using your ASR-X Pro—and what it all means.

The Knobs
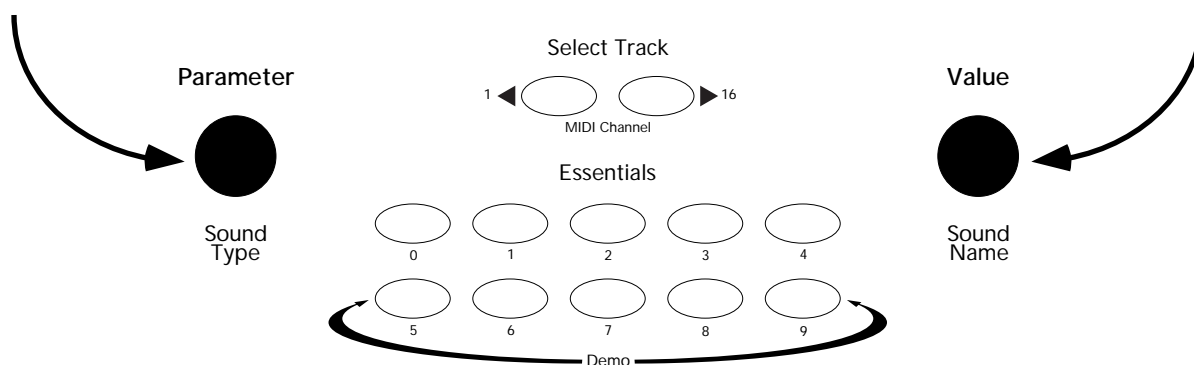
In the center of the front panel, below the display, are two knobs central to most every ASR-X Pro activity. These knobs each have two names, since they operate in two wide-ranging contexts.

•   When you're selecting sounds for tracks or for pads in the ASR-X Pro, the central knobs are referred to as the Sound Type and Sound Name knobs. These names are printed underneath the knobs, as shown above. The Sound Type and Sound Name knobs are the key to unlocking the power of the ASR-X Pro's SoundFinder feature. Each knob does just what its name suggests: the Sound Type knob selects a kind of sound, and the Sound Name selects an individual sound.

Tip: To learn more about selecting sounds and SoundFinder, see Chapter 2.

•   Virtually every other ASR-X Pro activity also uses the two central knobs. In these contexts, they're referred to as the Parameter knob and the Value knob. These names are printed above the knobs, as shown in the above illustration.
    • A *parameter* is a characteristic of the ASR-X Pro software that can be changed.
    • A *value* is the setting of a parameter.

The Parameter knob is used for the selection of a parameter for editing, and the Value knob changes its value. There are times that the knobs are used for selecting procedures to be performed—in these cases as well, the knobs are referred to as the Parameter and Value knobs.

The Exit/No and Enter/Yes Buttons and Their LEDs
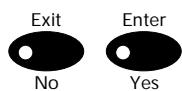
The two buttons marked "Exit/No" and "Enter/Yes" are central to the performance of many ASR-X Pro procedures, and are used for navigating the ASR-X Pro displays and parameters.

Most of the operations performed on the ASR-X Pro are posed as questions on its display—at such a time, think of these buttons as No and Yes buttons. When the ASR-X Pro asks you a question, the LEDs in the buttons flash as a reminder that the ASR-X Pro requires a response from you in order to proceed with the selected operation. To answer "No" or "Yes," press the appropriate button.

Some of the ASR-X Pro's features offer sets of parameters and procedures. In such cases, you'll begin by answering "Yes" to a top-level question, which will have the effect of beginning the procedure. From there you'll encounter parameters presented on sub-displays that relate to the top-level question. To exit back out to the top level of the ASR-X Pro, you can press the Exit/No button.

Playing the ASR-X Pro Demo

The ASR-X Pro contains some short demonstration pieces to give you an idea of the kind of music it can produce. These demos are based on the wave data built into the ASR-X Pro. To play the main demo:

1.   Locate the Essentials buttons on the ASR-X Pro's front-panel.
2.   Hold down the Essentials Button 5.
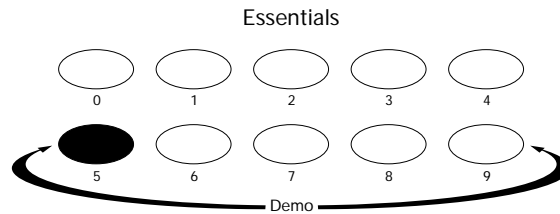
3.   While still holding the Button 5 down, press Essentials Button 9.
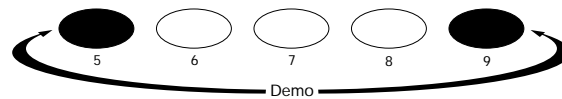
4.   Release both buttons.
     The display will show...

```
Start demo playback?
MAINDEMO:    Internal
```

5.   Press the Enter/Yes button to hear the demo.
3.   To stop the demo, press any button on the ASR-X Pro front panel.
4.   To select the individual demos that make up the main demo, turn the Parameter knob to select other demo categories, and the Value knob to select individual demos in the selected category—then press Enter to hear the selected demo.

# Important ASR-X Pro Concepts

Architecture Overview

The ASR-X Pro is a groovestation containing a variety of elements, each represented by an area (or two, in the case of the pads) of the ASR-X Pro front panel:

- tracks
- pads (and pad editing)
- effects

- sampling/resampling
- sequencer
- disk functions and global settings

While each area has its own chapter in this manual describing it in detail, it's important that you always know where you are and what you're doing.

You Are Here

the sound
you're
playing

on the currently selected track

in the currently selected sequence
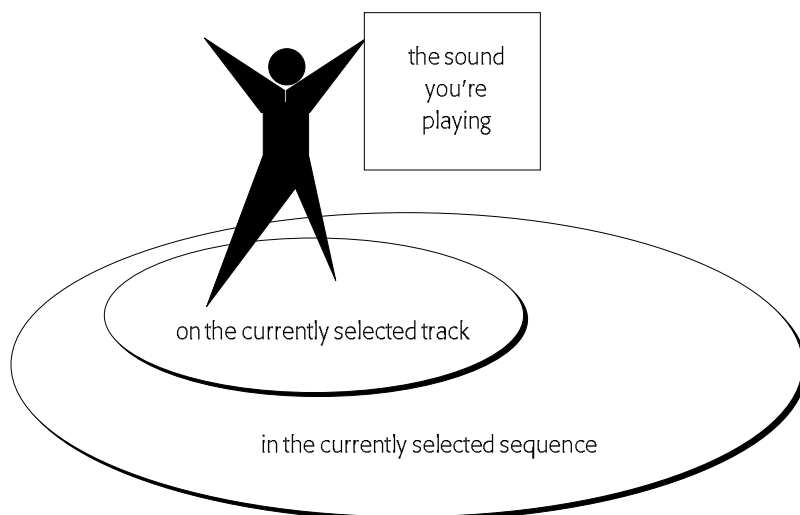
- In the ASR-X Pro, there is always a sequence selected, even if you haven't recorded anything.
- In the ASR-X Pro, there is always a track selected, even if you haven't recorded anything.

Therefore, the important thing to remember about the architecture of the ASR-X Pro is this simple rule:

> You're always on the currently selected track in the currently selected sequence.

This means that:

- When you press the Track Sound button and pick a new sound, you're choosing a new sound for the currently selected track (described in Chapter 2).
- When you play the pads, you're playing the sound on the currently selected track (see Chapter 3).
- When you convert a standard sound into a RAM kit, the newly created RAM kit is assigned to the currently selected track (described in Chapter 3).
- When you select new sounds or otherwise edit or process what's on a pad, you're editing one of the pads in the RAM kit on the currently selected track (described in Chapter 3).
- When you sample or resample and send your wave(s) to one or more pads, you're sending them to a RAM kit on the currently selected track (described in Chapter 5).
- When you play the pads and record in the sequencer, you're recording on the currently selected track (described in Chapter 6).

What's Where

The ASR-X Pro contains essentially three types of memory:

1. ROM (for "Read-Only Memory")—This is a permanent and unchangeable area of memory that contains the wave data used by the sounds shipped with your ASR-X Pro; it also contains the sounds themselves.
2. RAM (for "Random Access Memory")—This area of memory holds:
   - the contents of the Scratch Pad
   - the sounds that play your samples
   - sequences
   - waves you've sampled and sent to pads
   - RAM kits you've created and edited
   - System/MIDI settings

Note: RAM memory is fast, efficient memory; it's also volatile, which means that everything you do will be stored in RAM only until you turn off the ASR-X Pro, at which time RAM is cleared. While this offers you a clean slate each time you turn on the ASR-X Pro, it also means that it's important to remember to save your work to disk before powering down.

3. FLASH—FLASH memory is a writable form of permanent memory in which the ASR-X Pro stores its operating system—its contents are retained even when the ASR-X Pro is turned off. In addition, when the ASR-X Pro is shipped from the factory, FLASH holds the default system, click and resampling setup parameter values, as well as the default Essentials buttons sound assignments and USER quantization templates. You can write your own custom settings to FLASH; see Chapter 7. When you update your operating system version from floppy, the new version is written to FLASH.

The "Allocating memory" Message

From time to time you may see "Allocating memory" briefly appear on the ASR-X Pro display. This is completely normal—it means that the ASR-X Pro is defragmenting its RAM memory to make most efficient use of available space. Defragmenting takes bits and pieces of free RAM joins them into uninterrupted, larger chunks of memory. This helps your data play back quickly and smoothly.

How Many Notes Can be Played at Once

The ASR-X Pro supports 32-voice polyphony, which means that 32 sound layers can be playing at any given moment. Different sounds use different numbers of layers—sounds based on the samples you create use one or two per note, while ROM sounds may use up to 16 per note—so the number of notes that can be played simultaneously depends very much on the sounds being used. To learn more about sound layers, see Chapter 3.

The All Notes Off Button

It's not uncommon for MIDI devices to get momentarily confused, given the amount of MIDI data that moves through the cables in a MIDI studio, and the ASR-X Pro is no exception. The Disk/Global Load button doubles as a handy All Notes Off button. If notes in the ASR-X Pro continue playing when you feel they should stop, double-click this button to turn off all of the currently sounding notes.
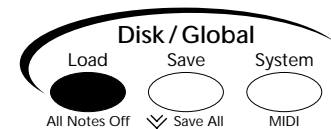
About Note, Tips and Warnings in the ASR-X Pro Documentation

Throughout the ASR-X Pro Reference Manual and User's Guide, you'll encounter notes, tips and warnings, offset from the rest of the text by borders, and always beginning with the word "Note," "Tip" or "Warning" in bold type. Each of these has its own meaning:

• Note: information regarding the topic being discussed that should not be overlooked.
• Tip: a way of using the feature being discussed that's worth being aware of.
• Warning: information that's vital in preventing damage to the ASR-X Pro, other equipment, or you.

Optional ENSONIQ Accessories for the ASR-X Pro

• X-8 output expander—The X-8 output expander provides additional outputs for your ASR-X Pro, usable as four pairs of stereo outputs, or as eight mono outputs.
• SW-10 foot switch—The SW-10 provides two foot pedals mounted on a single base that let you take full advantage of the ASR-X Pro many hands-free possibilities.
• SW-2 foot switch—The SW-2 synthesizer-style single foot switch can access the many possibilities available to a foot switch on the ASR-X Pro.
• SW-6 foot switch—The SW-2 piano-style single foot switch can access the many possibilities available to a foot switch on the ASR-X Pro.
• X-Audio audio CDs—Each X-Audio series CD contains a huge assortment of materials that can be sampled into the ASR-X Pro.
• EXP Series Wave Expansion Boards—These exciting boards from ENSONIQ provide the ASR-X Pro with new sounds and ROM wave data.