

The Acurus ACT 3...better sound than a movie theater

Sound Quality and Performance

The Acurus ACT 3 is a breakthrough in surround sound processing. The approach we have taken in engineering the ACT 3 is unique. It is an American original, fully engineered and made in the U.S.

Beginning with a clean sheet of paper, the overriding goal was exceptional audio and video performance. This meant that although useful features are important, they would not be allowed to compromise performance. We also understood that it needed to be engineered maintaining the standard that Acurus is internationally known for, the finest value in audio.

Digital

The Processor

Our advanced processor takes the digital bit stream and converts it, via mathematical algorithm, to the 6 channels of information used for Dolby ProLogic®, Dolby Digital®, DTS® or MPEG-2®. Each of these modes has a specific algorithm dedicated to its function. The method in which the ACT 3 handles these algorithms is different. Our Digital Signal Processing chip is capable of processing the bit stream at the highest rate of any surround sound processor.

The D/A Converters

After the bit stream is divided into multiple channels by the processor, it is then converted into an analog signal by digital to analog (D/A) converters. The ACT 3 employs 20 bit D/A conversion for all 6 channels. In stereo mode the ACT 3 is an exceptional D/A converter. Full 20 bit conversion assures high quality sound for all channels and seamless transition when sound travels from one speaker to another or is located between speakers.



Able to accurately reproduce the subtlest whisper and the loudest explosion.

Analog

The Video Output

The video stage is engineered to be as transparent as possible. Components, such as on screen display generators, have been eliminated from the signal path. This ensures that the ACT 3's video output will be the same as the original source signal, even when viewed on a large screen.

The Volume Control

Engineered for superior sonic performance, the ACT 3's volume control is a combination of the latest in digital and analog technology. Many surround sound preamplifiers use only a digital volume control. The problem with this approach, is that it lowers the volume by reducing the number of bits (bit scaling). To maintain our full 20 bit resolution, the ACT 3 has precision analog volume attenuators that are controlled digitally. The outcome is a combination of extreme sonic detail and precise localization of image throughout the entire soundfield.

The Audio Output

The output stage is DC coupled for the deepest possible bass response. Instead of rolling off bass response at 20 Hz, the Acurus ACT 3 is capable of reproducing the deepest bass that digital audio can deliver. The discrete output transistors operate in Class A for clarity, smoothness, and detail.

Renders excellent color and contrast even on the largest of video screens.



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*better sound than
a movie theater™*





Features

Software Upgrades

The ACT 3 has the ability to be software upgraded. Many of its controls and operations reside in the proprietary software programs. These programs are accessible for future upgrading.

Hardware Upgrades

The ACT 3's modular design is engineered to take full advantage of future advancements. It allows for upgrades in both digital and analog circuitry.

Mode Settings Recall

Each multi-channel format requires a different channel balance. Unlike other surround sound processors, the ACT 3 allows a different balance setting to be stored in memory for each surround mode. When any mode is activated, its pre-stored setting is automatically recalled. Front/rear balance, center channel volume and subwoofer volume for a particular movie or recording can be easily changed to suit your listening preference. The original settings are restored with one touch of a button.

System Remote Control

The programmable ACT 3 remote has codes for over 500 different components stored in its memory. This easy to use remote gives instant access to all functions of the ACT 3 and other components in your home theater system. In addition the remote offers advanced features such as channel and volume punch through, back lit buttons and five macro controllers.

Movies



Precisely decodes all surround formats of discrete digital home theater.

Modes

DOLBY DIGITAL (AC3)

This format is currently available on laser disc and DVD.

DTS (44.1 kHz)

The format currently available on CD and laser disc.

DTS (48 kHz)

This new high speed format is the standard on DVD.

MPEG-2

The format employed for various sources, such as satellite and European multi-channel DVD.

Dolby ProLogic

This matrix multi-channel format is currently the most widely used. It is available on most laser discs and VHS tapes as well as broadcast and cable TV.

DSP

The ACT 3's unique matrix modes allow conventional stereo signals to be processed for surround playback. The DSP modes are useful for music reproduction, such as placing you in a concert hall or in the crowd at a live event.

Music



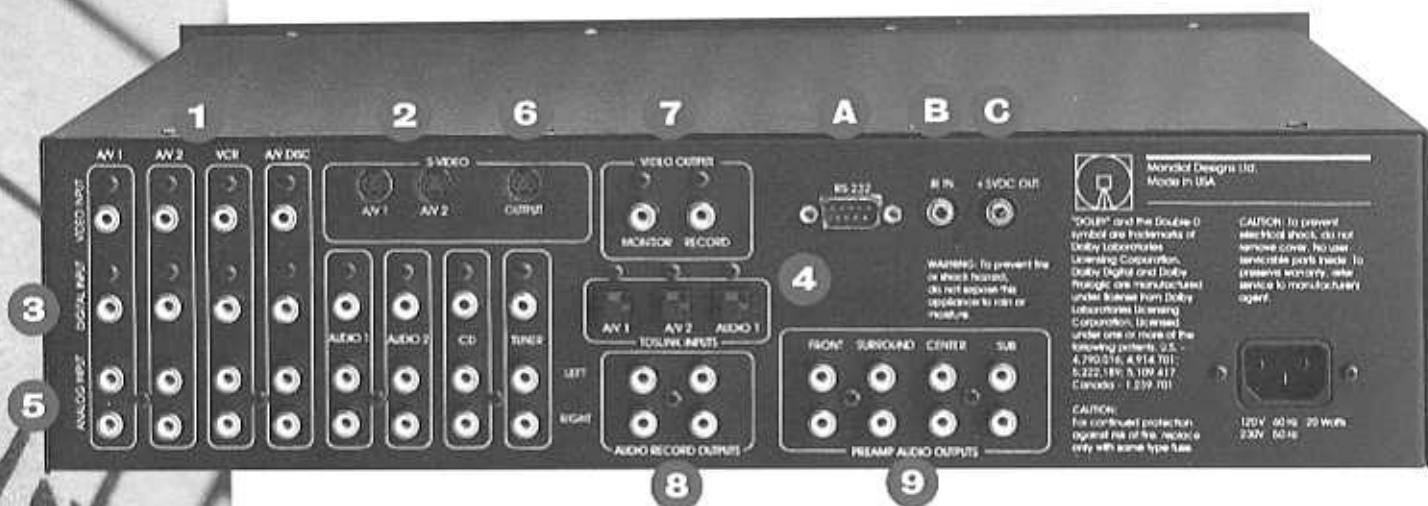
20 bit D/A converters & discrete analog Class A outputs provide exceptional music reproduction.

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*accuracy
from the U.S.™*

Specifications

The ACT 3 is engineered to provide the utmost in versatility. The functionality of the extensive array of inputs is exhibited below. In addition, the three ports allow for the ultimate in control flexibility.



Inputs

- ① 4 Composite Video Inputs
- ② 2 S-Video Inputs
- ③ 8 Coaxial Digital Audio Inputs
- ④ 3 TosLink Digital Audio Inputs
- ⑤ 8 Stereo Analog Inputs

Outputs

- ⑥ 1 S-Video Output
- ⑦ 2 Composite Video Outputs
- ⑧ 2 Stereo Analog Record Outputs
- ⑨ 8 Preamp Audio Outputs

These 8 channels of output consist of:

- Left & right front outputs
- Left & right rear outputs
- Center output
- Subwoofer output
- 1 additional center output
- 1 additional Subwoofer output

Ports

Ⓐ RS-232 Data Port

This port permits the ACT 3 to be interfaced with a computer. The port also allows communications with multi-room systems (AMX, Crestron, etc.) as well as future Acurus hardware systems.

Ⓑ IR Data Port

The rear panel data port allows access to the front panel and remote functions. This is specifically useful for interfacing the ACT 3 with multi-room or infra-red repeater systems.

Ⓒ Control Voltage Port

This output can turn an entire home theater system on and off via our optional RPC-120 AC filter and switcher.

Audio Input Sensitivity
200 mv for Dolby level

Audio Output Level
6 volts maximum

Audio Output Impedance
100 Ohms

Video Input Impedance
75 Ohms

Video Output Level
1 volt for both NTSC & PAL

Dimensions and Weight
17" x 5" x 12 1/2" 23 lbs

Total Harmonic Distortion
Less than 0.01%

Signal to Noise Ratio
Better than 90dB A weighted

Frequency Response
5 Hz to 20k Hz +0.0, -0.5

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