

NAD

T770 Surround Sound Receiver



- 5 x 70 Watts • Up to of 40 amps peak current capability
- Dolby Digital decoder integrated • Motorola 56009 and 56004 DSP processors
- Burr-Brown DACs with 18 bit resolution • 5.1 input for external decoder
- Pre-outs for all 5 channels • Subwoofer output • Impedance Sensing Circuitry (ISC)
- 4 Audio inputs; 2 tape outputs • 5 Video inputs; 2 video outputs
- 3 digital inputs • EARS (Enhanced Ambience Recovery System) surround mode
- Tone Defeat • Gold Plated Sockets throughout • 30 presets
- Soft Clipping • System Remote Control • NAD-Link

Most A/V receivers available on the market today focus predominantly on the Video and Surround Sound aspects, leaving audio circuitry almost as an afterthought. NAD firmly believes that there are many people for whom music will always come first so. With NAD's reputation for high value/high performance it was obvious that the Model T770 would have to please Audiophiles and Videophiles alike.

Design

By doing away with many costly and superfluous features, NAD's engineers concentrated only on the truly important parts of an A/V receiver. As the new Digital Surround Sound formats allow for the same wide bandwidth and large dynamic range for the rear channels as the rear channels, all five channels are capable of putting out an equal amount of power. As usual with NAD, the T770 uses discrete output stages only, including the surround channels. The benefits of this approach have been proven over the years in many acclaimed NAD amplifiers and receivers. The integrated output modules favored by so many other designs will deliver a decent amount of power under laboratory conditions, driving an 8 ohms resistor, but can have great difficulties in driving real world loudspeakers.

Impedance Sensing Circuitry (ISC)

The new Impedance Sensing Circuitry (ISC) topology designed by Bjørn Erik Edvardsen allows the T770 to deliver maximum performance under virtually any circumstance, independent of the loudspeakers it is driving. The circuitry automatically recognizes the impedance characteristics of the loudspeaker and will then adjust its power supply settings to best cope with that specific load.

NAD takes a stance to the mindless "brochure power" approach which doesn't give a realistic indication of an amplifier's true capabilities. Instead, the ISC topology is a practical approach to enable an amplifier to easily deal with dynamics and difficult loads. More meaningful are the T770's dynamic capabilities; up to 300 Watts into 2 ohms and up to 40 amps current capability.

Whereas it is widely accepted with CD players that the digital and analog circuitry play a vital role in the performance, it appears that many AV receivers employ only mediocre signal conversion and processing circuits. For the T770 the engineers choose the best available within the budget: Burr-Brown DACs with 18-bit resolution. The two DSP chips that handle the Dolby Digital, Dolby Pro Logic, EARS and other Surround Modes chosen, are from the well renowned Motorola 56000 family. The combination of these components ensure that the integrity of the original signal retains its full resolution and dynamics.

Flexibility

As one would expect from any NAD component, the Model T770 offers great flexibility; 5 video and 4 audio inputs allow you to connect all your sources with ease. All video in and outputs are S-Video and Composite compatible, including the video input on the front panel.

Besides these "normal" inputs, the T770 also sports an external decoder (5.1 channel) input so you can easily expand your receiver in the future with an outboard decoder for another surround sound format, such as DTS, for instance. 3 Digital inputs are provided, to cater for every eventuality: A coaxial digital input, an input with a RF demodulator integrated and a TOS Link for sources with optical outputs. Whether it's a Laserdisc, CD and/or DVD player, the T770 will connect to it. With pre-amplifier outputs for all channels you can easily upgrade your output power too.

To ensure long-term contact reliability, all speaker terminals are of the robust binding post variety rather than the usual spring clips and all other audio sockets are gold plated.

The remote control handset supplied with the Model T770 also has controls for NAD CD players or changers and a (dubbing) cassette deck. With NAD Link it is possible to remote control other NAD products which do not have their own remote control (NAD Cassette Deck Model 616, for instance) from the T770's remote control.

Ease of use

Ease of use is another key factor for NAD products and the Model T770 is no exception. The built-in test tone generator - accessible by remote control - allows for accurate calibrating of the Front, Center and Surround speakers. Thirty presets can be programmed at random with either AM or FM stations. Three banks of 10 stations means you can organize the presets to personal preference or program type. Preset stations can be named, using up to eight characters. Rather than providing many different surround sound modes (Church, Jazz, Stadium, etc.), which makes so many other receivers cluttered and over

complicated, the engineers concentrated on perfecting the Dolby Digital and Pro Logic decoding and steering. For music the Enhanced Ambience Recovery System (EARS) mode can be engaged, adding a natural level of reverberance and life.

In keeping with the NAD tradition, the Model T770 provides performance, simplicity and value which is hard to match. This new addition to the NAD line of products is equally at home in a system for discerning music lovers, as it is in a system for those looking to get the best out of Dolby Surround Laser Discs, Videos and Compact Discs.

PRELIMINARY SPECIFICATIONS - NAD MODEL T770

Amplifier Section

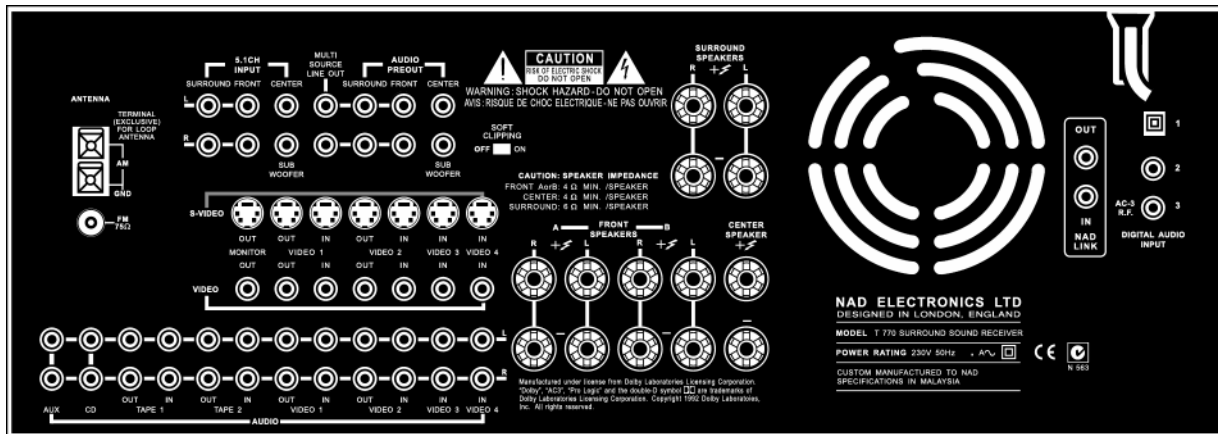
Power Output: Stereo Mode (8 Ω within rated distortion)		2 x 80 W (19 dBW)
IHF dynamic power	8 Ω	2 x 120 W (20.7 dBW)
	4Ω	2 x 210 W (23.2 dBW)
	2Ω	2 x 300 W (24.7 dBW)
	Surround Mode	5 x 70 W (18.5 dBW)
Total Harmonic Distortion	at rated power (Front)	0.08%
IM Distortion	at rated power (Front)	0.08%
Sensitivity and Impedance		150 mV / 50 kΩ
Frequency Response	5 to 50,000 Hz	±0.5 dB
Signal to Noise Ratio	Line Ref 70 W / 8 Ω	106 dB (IHF A)
	Ref 1 W / 8 Ω	81 dB (IHF A)

Tuner Section

Input Sensitivity	Mono	1.3μV
	Stereo	2.5μV
Frequency Response	30Hz - 15kHz:	±1.5 dB
Total Harmonic Distortion	Mono	0.15%
	Stereo	0.25%
Stereo Separation	1 kHz	45 dB
Signal to Noise Ratio	Mono	73 dB
	Stereo	67 dB

Physical Specifications

Dimensions (W x H x D)	17.1875" x 5.125" x 13.625" / 435 x 155 x 345 mm
Net weight	35.93 lbs / 16.3kg
Shipping weight	37.7 lbs / 17.1kg



Appearance and features are tentative. Dolby, Dolby Digital and Pro Logic are registered trademarks of the Dolby Laboratories Licensing Corporation. NAD reserves the right to change specifications or design at any time without notice. All specifications are those in effect at time of printing.