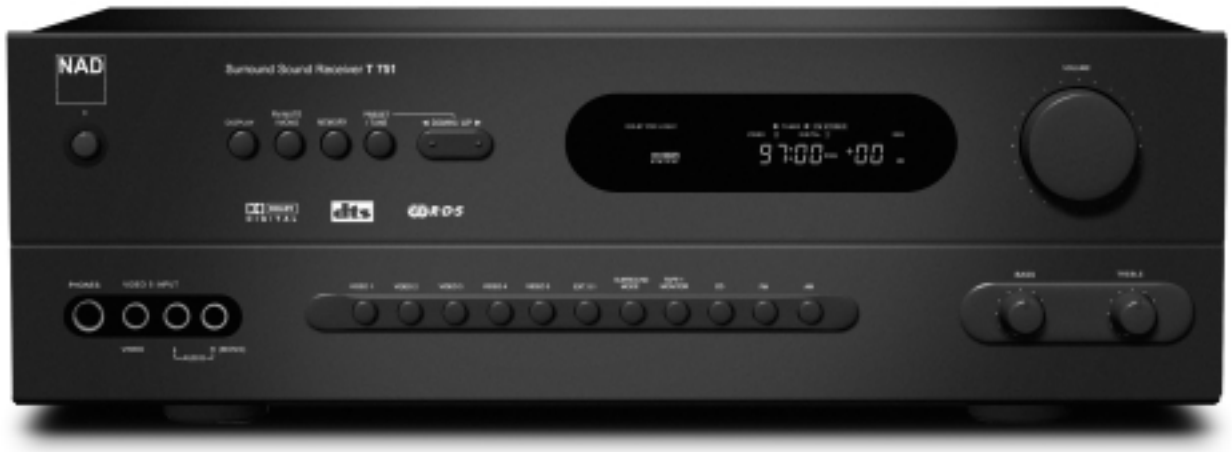
NAD **T751** Surround Sound Receiver



• 60W x 5 Continuous power (8 ohms); all channels driven simultaneously • 225W Dynamic power (2 ohms) • Up to 40 amps of peak current capability • Dolby Digital & DTS decoder integrated • Crystal DSP processor • Crystal Sigma-Delta ADCs and DACs with 96kHz/24 bit resolution • 5.1 input for external decoder • Pre-outs for all channels (5.1 out) • Impedance Sensing Circuitry (ISC) • CD; Tape; 5 Video inputs; 2 video outputs; all S-Video or Composite • 3 S-Video inputs; 1 S-Video output; S-Video Monitor output • 3 digital inputs; 2 RCA; 1 TOS Link • EARS (Enhanced Ambience Recovery System) Music surround mode • RDS tuner (RDS PS & RDS RT) • 30 presets • Soft Clipping™ • System Remote Control • NAD-Link

Ever since NAD entered the AV receiver market, the focus has always been on the audio performance, unlike most other AV receivers that concentrate on features and impressive specifications. The high praise that NAD AV receivers have gained underscores this approach. After the initial excitement, people are starting to realise there is more than just explosions, gunfights and car-crashes. An AV system also needs to faithfully reproduce music, with or without pictures, stereo or multi-channel. The new NAD T751 continues the NAD "music first" tradition with the T751, making it an ideal choice if you want your system to perform well as a Surround and music system.

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 front channels as the rear channels, all five channels are capable of putting out an equal amount of power. As usual with NAD, the T751 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 favoured 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 moderately difficult speakers. The NAD T751 uses the Impedance Sensing Circuitry (ISC) topology (patent pending) designed by Bjørn Erik Edvardsen, now used to good effect in a large range of NAD products.

Impedance Sensing Circuitry (ISC):
The ISC topology allows the T751 to deliver maximum performance under virtually any circumstance, independent of the loudspeakers it is driving. The circuitry automatically recognises 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 T751's dynamic capabilities; up to 200 Watts into 2 ohms and up to 40 amps peak current capability.

Whereas it is widely accepted with CD players that the digital and analogue circuitry play a vital role in the performance, it appears that many AV receivers employ only mediocre Digital-to-Analogue (DAC), Analogue-to-Digital (ADC) converters and Digital Signal Processors (DSP). For the T751 the engineers choose the best available within the budget: Crystal Sigma-Delta DACs and ADCs, each with 24-bit resolution. The DSP chip that handles the Dolby Digital, DTS, Dolby Pro Logic and EARS Modes, is also from the well renowned manufacturer Crystal™. The combination of these components ensure that the integrity of the original signal, be it music or an action movie, retains its full resolution and dynamics.

Flexibility
As one would expect from any NAD component, the Model T751 offers great flexibility: the 5 video (1 on front panel for easy connection of game console or camcorder) and 2 audio inputs allow you to connect all your sources with ease. Three of the video inputs are full S-Video and Composite compatible.

Besides these "normal" inputs, the T751 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. 3 Digital inputs are provided, to cater for every eventuality: Two coaxial digital inputs and a TOS Link for sources with optical outputs. With pre-amplifier outputs for all channels (Left, Centre, Right, Left Surround, Right Surround and subwoofer) you can easily upgrade your output power too.

To ensure long-terms 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.

Ease of use
Ease of use is another key factor for NAD products and the Model T751 is no exception. The built-in Noise generator -accessible by remote control- allows for accurate calibrating of the Front, Centre and Surround speakers.

The remote control handset supplied with the Model T751 also has controls for other NAD components, such as CD players, for instance.

Thirty presets can be programmed at random with FM stations, ten with AM stations. The T751 also offers RDS PS (Program Service) and RT (Radio Text). When tuning in to an RDS radio station, the T751 will automatically display the name of the station so you do not have to remember which frequency belongs to what station. At the touch of a button

RDS RT (Radio Text) will display additional information broadcast by the radio station, such as the presenter, which music is playing, etc.

Rather than providing many different surround sound modes (Church, Jazz, Stadium, etc.) which makes so many others 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 ambience, relying only on the original information in the signal.

In keeping with the NAD tradition, the Model T751 provides performance, ease of use and flexibility 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 Videos, CDs, Dolby Digital or DTS DVDs.

PROVISIONAL SPECIFICATIONS - NAD T751

Amplifier Section

Power output	Stereo Mode (8 Ω within rated distortion)	2 x 70W (18.5 dBW)
IHF dynamic power	8 Ω	2 x 110W (20.5 dBW)
	4 Ω	2 x 160W (22 dBW)
	2 Ω	2 x 225W (23.5 dBW)
Surround mode		5 x 60W (17.8 dBW)
Total harmonic distortion	at rated power	0.08%
IM distortion	at rated power	0.08%
Damping factor	8 Ω	60
Sensitivity and impedance	(R and C)	200mv / 50kΩ
Frequency response	5 to 20,000 Hz	±0.8 dB
Signal/noise ratio	Ref 60W / 8 Ω	96dB (IHF A)
	Ref 1W / 8 Ω	80dB (IHF A)

Tuner Section

Input sensitivity	Mono	16.1dBf
(50dB quieting)	Stereo	36.1dBf
Frequency response	30Hz - 15kHz	±1.5dB
Total harmonic distortion	Mono	0.25%
	Stereo	0.5%
Stereo separation	at 1 kHz	38dB
Signal/noise ratio	Mono	72dB
	Stereo	66dB

Physical Specifications

Dimensions (WxHxD)	17 1/8 x 5 3/16 x 13 3/4" (435 x 132 x 350mm)
Net weight	37.9 lbs (17.19kg)
Shipping weight	39.6 lbs (17.96kg)