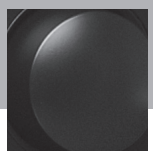
T 775 HD2 AV Surround Sound Receiver

> POSITIONING

The NAD high definition T 775 HD2 is heir to many generations of award-winning NAD designs. This exceptional pedigree is evident in both the look and the feel of the T 775 HD2, and it is unmistakable the moment you listen. The NAD T 775 HD2 now comes with full 3D Video and HDMI 1.4a thanks to NAD's innovative approach to upgrading your AV tuner preamplifier – Modular Design Construction (MDC). It is NAD's insistence on creating products with remarkable sound quality at sensible prices that has made NAD the first choice among the most knowledgeable listeners from around the world. NAD's 'Music First' philosophy dictates that we endow our Audio Video products with the same warm, involving sound quality that makes music listening so rewarding with our stereo components. This stands in stark contrast to our competitors who view Audio Video components primarily from a 'content' point-of-view, with sound quality far down the list of priorities. Yet the T 775 HD2 is second to none in terms of flexibility and up-to-the-minute digital technology.

> FEATURES

- 180W x 7 (FTC) Power
- 7 x 100W Minimum Continuous Power into 4/8 ohms, all channels driven simultaneously, 20Hz - 20kHz at 0.05%THD (NAD Full Disclosure Power)
- PowerDrive™ amplifier technology
- MDC (Modular Design Construction) allows future upgrades, includes AM 200 Dual DSP Audio module and VM 100 3D Video Module with HDMI 1.4a
- 3D Video support
- Lossless decoding: Dolby True HD and DTS-HD Master Audio
- Dolby Digital, Dolby Digital Plus, ProLogic II, ProLogic IIx, DTS, DTS ES, DTS 96/24, DTS NEO:6, EARS and Enhanced Stereo Surround Modes
- Audyssey Auto Calibration of all speaker settings using supplied microphone
- Audyssey MultEQ XT Room Correction with custom NAD developed target response curves
- Audyssey Dynamic Volume and Dynamic EQ
- Toroidal power supply
- 5 A/V Custom Presets store unique speaker level and tone control settings
- Direct access speaker level adjustment for surround, centre and subwoofer
- NAD Soft Clipping™
- 7 Analogue Stereo Audio Inputs including 1 Audio Front Input in the front panel
- Media Player MP front panel input
- 6 Analogue Video Inputs including 1 S-Video and 1 Composite Front Video input in the front panel
- 3 Component Video Inputs
- 7 Digital Audio Inputs - 3 Coaxial and 4 Optical including Optical Front input in the front panel
- 4 HDMI Digital Video Inputs and 1 Outputs, freely assignable
- Cross Conversion of all analogue video formats
- Analogue video to HDMI Conversion
- 3 Analogue Audio outputs including Zone 2 Audio Out and with the 2 other Audio outputs assignable also as Zone 3 and Zone 4 Audio Out
- Back Surround Amplifier Channels can be reassigned as Zone 2, 3, 4 or Main Front (Bi-Amp)
- 4 Video Monitor Outputs - HDMI, Component, S-Video and Composite formats
- Analogue Video outputs - 2 Video Composite and S-Video and 1 Zone (Composite)
- 7.2 Analogue Pre-Out (2 subwoofers)
- 2 Digital Outputs - 1 Coaxial and 1 Optical (TOSLINK)


> FEATURES CONTINUED

- Speaker A + B switching (Speakers B stereo only)
- Zone 2 A/V line level Output with independent source and volume selection
- Digital Inputs available as 2-channel analogue downmix on Zone 2 Output
- Zone 3 and Zone 4 Audio Output with independent source and volume selection
- ZR 4 second Zone remote included with discrete codes for independent zone
- IR input
- 3 x IR outputs
- RS-232 port interface for advanced control systems
- 3 x 12V output triggers, 1 x 12V input
- RDS FM and AM Tuner
- 40 direct access presets that can be a mix of your favourite AM, FM and XM (or DAB/DAB+) stations
- iPod Ready – just add NAD IPD 2 Dock for iPod (iPod Menu on OSD and Front Panel Display)
- XM Ready – just add outboard XM module (North American version)
- DAB/DAB+ Ready – just add outboard NAD DB 1 or DB 2 module (Europe and Asia)
- HTR 3 Illuminated Learning Remote Control
- <1W Standby Power

> DETAILS

Modular Design Construction

NAD has developed a unique new architecture that keeps pace with the fast changing world of digital formats by allowing connectivity and feature upgrades as new technology becomes available. This prevents premature obsolescence by keeping pace with the latest developments in high performance audio and video formats. Dealer installed hardware and software can add new connectivity and features at a future date, allowing your T 775 HD2 to grow as your needs and tastes develop. Most AV receivers require complete replacement with a new model to get the latest features. With NAD you only replace the module you want to upgrade – not the entire AV receiver!

Audio Performance

Today's advanced Surround Sound receivers require quality in the digital decoding stages, the video processing section, and in the power amplifier design for the best overall performance. The T 775 HD2 is an excellent example of the NAD Design Team's expertise in all three areas. Not only that, but we have made many ergonomic refinements to simplify operation and make it more enjoyable to get all the performance from this magnificently capable receiver.

Using the latest Dual Core Floating Point DSP technology, NAD was able to include the newest surround formats from Dolby and DTS, as well as NAD's own highly regarded music surround mode - EARS. The EARS circuit (Enhanced Ambient Recovery System) is now optimized for 7-channel surround. Unlike the typical artificially enhanced DSP modes like 'Club', 'Stadium', and 'Church', EARS uses DSP technology to extract the natural ambience of the recording. This is redirected to the surround channels to create natural surround sound from any 2-channel source. This induces a warm natural reverberant effect without the hollow 'BOING' of artificial reverb.

The surround mode of the source material is automatically detected via the digital inputs of the T 775 HD2, and the most advanced form of decoding is switched in. Conversion of the encoded digital bitstream is performed with high resolution and extremely linear D/A Converters carefully selected for their performance capabilities.

NAD's reputation for producing power amplifiers that are both potent and musical is upheld in fine manner with the T 775 HD2. Boasting a minimum of 100 watts continuous power per channel, the T 775 HD2 can fill even large rooms to lifelike sound levels. NAD's exclusive PowerDrive™ amplifier technology automatically adjusts the power supply settings of the amplifier to the needs of the loudspeaker. This ensures remarkably dynamic and distortion-free performance with any type of loudspeaker, even demanding 4 ohm designs. Many less advanced receivers prohibit the use of 4 ohm speakers. With PowerDrive™, the performance is always optimized for the actual operating condition and as a result, the amplifier exhibits very low distortion and good current drive in the real world. Explosive musical dynamics are effortlessly handled without added distortion.

Credit for the sound of NAD's components rests squarely with our unique design approach and our experienced and very talented design team. Most companies design their products to a technical specification and a price point. While this sounds logical enough, it does not address the way the product will actually be used by the eventual owner. You don't listen to specifications, you listen to music and sound. While NAD products exhibit excellent technical measurements, we have relied on our own ears and listening experience to determine the final design of our products. Because of our unique design approach, NAD's sound is simply more real sounding, adding enjoyment and excitement to your favourite films and music recordings.

Video Performance

Employing the very latest generation of advanced HDMI 1.4a Receiver and Transmitter chips in the VM 100 3D video module ensures compatibility with the

broad range of 3D and HD digital video sources and displays available today. NAD engineers have utilized a powerful FPGA with our own custom software to process the video signal, enabling the conversion of analogue video to digital video and allowing a single cable connection to your TV for all sources while maintaining the source's native resolution. Interlaced video is converted to progressive scan over HDMI allowing for complete compatibility with the latest HD TVs. NAD's clear and simple On Screen Display is available on all Video Monitor outputs. All audio formats, including High Bit Rate audio from Blu-ray players, are supported by the VM 100 3D Video Module.

Flexibility

The T 775 HD2 has all the flexibility required to serve as the command centre for even the most sophisticated Home Theatre and multi-room systems. A full suite of video switching caters to all the popular video formats (HDMI, Component Video, S-Video, and Composite Video). Digital inputs (including a handy front panel input) and outputs are available in both coaxial and optical formats to make it easy to attach all your digital sources for playback and recording. Digital Inputs are converted to analogue for use in Zone 2 and you can choose to convert unused audio/video outputs for Zone 3 and Zone 4 use with independent source selection and volume control.

With the T 775 HD2, NAD has made it easy to add more speakers for listening to music in additional rooms or 'zones'. A second pair of speakers can simply be added to the front channel amplifiers and switched on or off from the remote control or front panel switch. More elaborate systems can also be created using the Zone 2, 3 and 4 outputs to add amplifiers and speakers with the benefit of independent source selection and volume control. Furthermore, the Back Surround Amplifiers can be assigned to any of these zones, allowing for a simultaneous 5.1 Home Theatre and a powered second zone. A separate second zone remote is included.

There are also 12 volt triggers to automatically switch remote zone amplifiers on and off, and even an RS-232 data port for connection to highly advanced automated control systems. Thoughtful features like discrete On and Off codes, direct access to inputs and FM station presets facilitates the integration of the T 775 HD2 into elaborate remote control systems.

An analogue 7.1 input is also provided for attaching a DVD-Audio player or any other yet to be developed surround decoder, ensuring that the T 775 HD2 does not become obsolete anytime soon. Preamp outputs allow the addition of more powerful amplifier channels.

Luxurious Simplicity

All the capability and flexibility in the world is quite useless if the receiver becomes too complicated to be operated by every member of the family. NAD has taken special measures to make operation of the T 775 HD2 as logical and straightforward as possible.

Initial system setup is best accomplished using your television monitor and the clear and simple On Screen Display (OSD), which can be configured to also give status updates as settings are changed in everyday use. Once the T 775 HD2 is informed of your specific system setup, all settings are stored in a non-volatile memory making this a one time task. The informative front panel display indicates complete information about the source being listened to or watched including selected surround mode and volume setting. The front panel display can be easily customized by renaming inputs and even determining what information you prefer to be displayed and when to display it.

Audyssey Auto Calibration is available using the supplied calibrated microphone. Simply place the microphone in the listening position and select Audyssey auto-calibration and the system automatically detects which speaker is connected, chooses the ideal crossover point to the subwoofer, checks speaker phasing, and adjusts the levels and delays. These adjustments are made to a level of accuracy that it would be difficult to duplicate by ear alone.

Audyssey MultEQ XT is the latest in digital sophistication, allowing for improved frequency response in a large 'family-sized' sweet spot. Using the calibration microphone to 'hear' your room, a series of test tones measure the speakers' response and the room's distorting echoes independently, and then calculates an ideal response that minimizes the effects of the room's echoes. While this sounds simple, the digital technology that is required for this level of performance would have cost many thousands of dollars just a few short years ago. But the electronic technology is only half the story, since an advanced knowledge of acoustics is also required to get good results from such a system. Working closely with Audyssey, NAD's acoustic engineers developed the final response curves that reflect our own performance values.

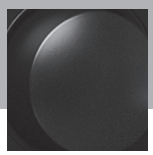
Audyssey Dynamic Volume and Dynamic EQ work together to address the problem of large jumps in volume when switching between different TV channels or when advertisements are inserted into the program. There is also an effect caused by our ears' different sensation of low and high frequencies at different listening levels: as the volume is reduced our sensation of bass frequencies is reduced more than the midrange frequencies.

The T 775 HD2 tuner section can store a mix of your 40 favourite AM, FM and XM (or DAB/DAB+) stations for immediate recall. These presets can be custom named. And if your selected FM station supports the Radio Data System (RDS), it will automatically stream information about the station and music being played. We also include a 'Digital Broadcast Ready' socket on the rear panel for adding outboard DAB or XM modules. All the control software for these formats is included, just plug in the module and start enjoying the clear sound and expansive content selection available with Digital Radio Broadcast.

Five independent 'Audio Video Presets' can store speaker level and tone control settings for instant recall, making it easy to custom tailor your system for different types of program material. Encoded surround modes like Dolby Digital and DTS are automatically selected if the program is so encoded. The T 775 HD2 also remembers your last used settings when switched in and out of Standby mode.

Summary

The T 775 HD2 offers remarkable performance and flexibility in a compact and simple to operate package. This multi-channel powerhouse will bring your favourite music and movies to life in your home entertainment room with an absolute minimum of fuss and a maximum of pure enjoyment.


> SPECIFICATIONS

POWER AMPLIFIER SECTION

Minimum continuous Power (FTC)	180W
Power output, Stereo Mode	150W (ref. 4/8Ω, both channels driven at rated distortion)
Simultaneous Full Disclosure Power	7 x 100W (ref. 4/8Ω, all channels driven at rated distortion)
IHF dynamic power, 8Ω	210W
IHF dynamic power, 4Ω	340W
IHF dynamic power, 2Ω	490W
Rated THD	<0.08% (ref. 20Hz – 20kHz)
IM distortion, rated power	<0.08%
Damping factor, 8Ω	>60
Input sensitivity and impedance	1.1V / 50kΩ
Frequency response	±0.8dB (ref. 20Hz – 20kHz)
Signal/Noise ratio	>92dB (ref. rated power, 8Ω, A-weighted)
	>82dB (ref. 1W, 8Ω, A-weighted)

POWER CONSUMPTION

Standby Power	<1W

DIMENSIONS AND WEIGHT

Dimensions (W x H x D)	435 x 170 x 431mm (Gross*)
Net Weight	20.8kg
Shipping Weight	25.7kg

PREAMPLIFIER SECTION

Input sensitivity and impedance	350mV / 50kΩ
Frequency response	±0.5dB (ref. 20Hz – 20kHz)
Signal/Noise ratio	>88dB (ref. 2V, A-weighted)

AM BAND

Frequency range	530kHz - 1710kHz (120V version only, 10kHz steps)
	531kHz - 1602kHz (230V version only, 9 kHz steps)
Usable sensitivity	30dBu
Signal/Noise ratio	>38dB
Total Harmonic Distortion	<3%
Loop sensitivity 20dB S/N	66dBu

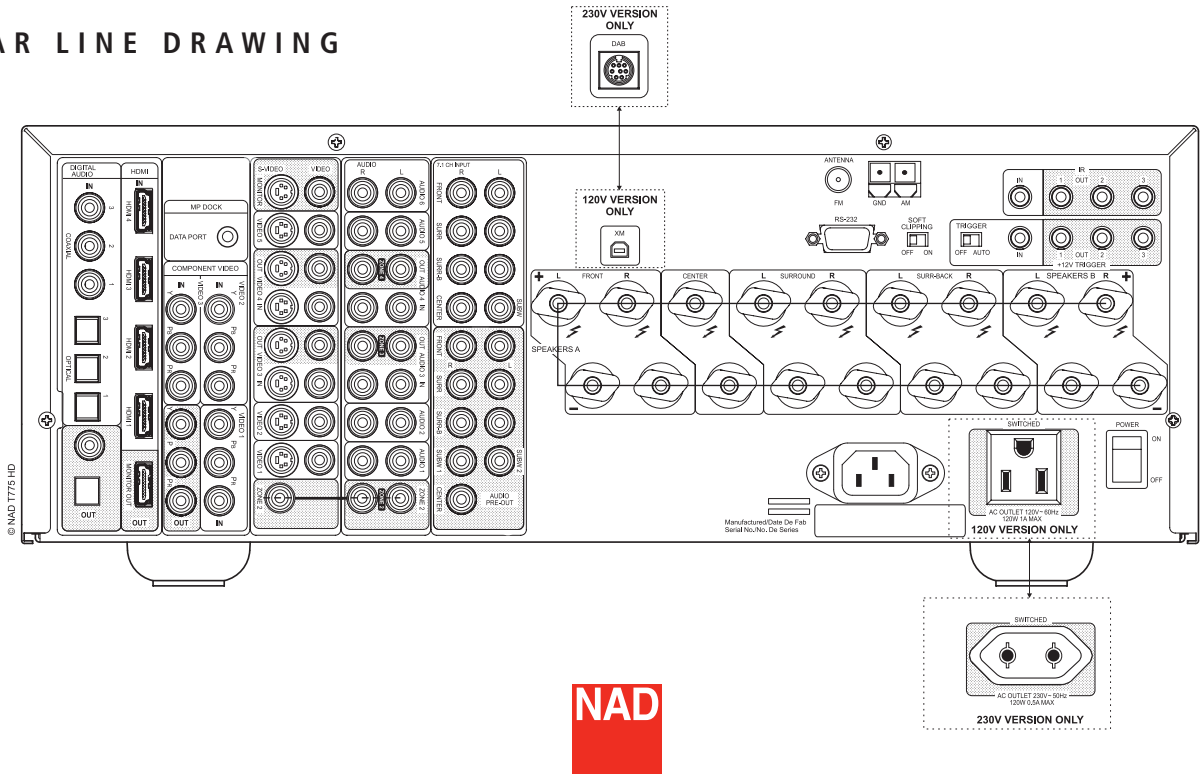
FM BAND

Usable sensitivity, Mono	<16.1dBf
Signal/Noise ratio, Mono	60dB
Signal/Noise ratio, Stereo	55dB
Total Harmonic Distortion, Mono	0.25%
Total Harmonic Distortion, Stereo	0.5%
Channel Separation, 1kHz	40dB
Frequency response	±1.5dB (ref. 30Hz – 15kHz)
RDS decode sensitivity	28dBu

* Gross dimensions include feet, extended buttons and rear panel terminals.

Note: Installers should allow a minimum clearance of 55mm for wire/cable management.

> REAR LINE DRAWING



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