NAD®

VISO TWO
DVD Receiver

Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

**SAVE THESE INSTRUCTIONS FOR LATER USE.**
FOLLOW ALL WARNINGS AND INSTRUCTIONS MARKED ON THE AUDIO EQUIPMENT.

1 **Read instructions** - All the safety and operating instructions should be read before the product is operated.
2 **Retain instructions** - The safety and operating instructions should be retained for future reference.
3 **Heed Warnings** - All warnings on the product and in the operating instructions should be adhered to.
4 **Follow Instructions** - All operating and use instructions should be followed.
5 **Cleaning** - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6 **Attachments** - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7 **Water and Moisture** - Do not use this product near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
8 **Accessories** - Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9 A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10 **Ventilation** - Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11 **Power Sources** - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.
The primary method of isolating the amplifier from the mains supply is to disconnect the mains plug. Ensure that the mains plug remains accessible at all times. Unplug the AC power cord from the AC outlet if the unit will not be used for several months or more.
12 **Grounding or Polarization** - This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
13 **Power** - Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.

14 **Outdoor Antenna Grounding** - If an outside antenna or cable system is connected to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.

NOTE TO CATV SYSTEM INSTALLER

This reminder is provided to call the CATV system installer's attention to Section 820-40 of the NEC which provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.
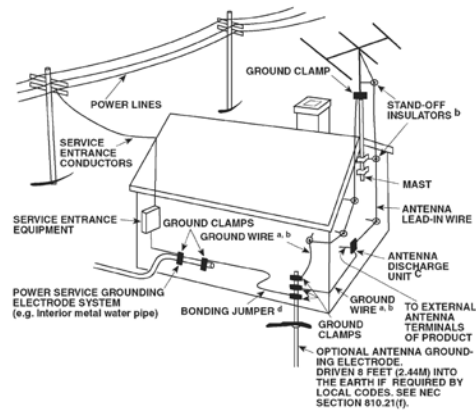
15 **Lightning** - For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
16 **Power Lines** - An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.
17 **Overloading** - Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
18 **Object and Liquid Entry** - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

WARNING: THE APPARATUS SHOULD NOT BE EXPOSED TO DRIPPING OR SPLASHING, AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THE APPARATUS. AS WITH ANY ELECTRONIC PRODUCTS, USE CARE NOT TO SPILL LIQUIDS INTO ANY PART OF THE SYSTEM. LIQUIDS CAN CAUSE A FAILURE AND/OR A FIRE HAZARD.

19 **Damage Requiring Service** - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

  a) When the power-supply cord or plug is damaged.

  b) If liquid has been spilled, or objects have fallen into the product.

  c) If the product has been exposed to rain or water.

  d) If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.

  e) If the product has been dropped or damaged in any way.

  f) when the product exhibits a distinct change in performance-this indicates a need for service.

20 **Replacement Parts** - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

21 **Safety Check** - Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

22 **Wall or Ceiling Mounting** - The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

23 **Heat** - The product should be situated away from heat sources such as radiators, heat registers, stoves or other products (including amplifiers) that produce heat.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION

TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

CAUTION

This DVD Receiver employs a Laser System. To ensure proper use of this product, please read this owner's manual carefully and retain for future reference. Should the unit require maintenance, contact an authorized service location. Use of controls, adjustments or the performance of procedures other than those specified may result in exposure to laser radiation. To prevent direct exposure to laser beam, do not try to open the enclosure. Visible laser radiation when the enclosure is opened.
DO NOT STARE INTO BEAM.

FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

FCC WARNING

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

INDUSTRY CANADA REQUIREMENT

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAYBE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.

THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The equipment draws its nominal non-operational power from the AC outlet with its POWER switch in the STANDBY position.
The socket-outlet shall be installed near the apparatus and shall be easily accessible.

CAUTION

Changes or modifications to this equipment not expressly approved by NAD Electronics for compliance could void the user's authority to operate this equipment.

CAUTION REGARDING PLACEMENT

To maintain proper ventilation, be sure to leave a space around the unit (from the largest outer dimensions including projections) that is equal to or greater than shown below.

  Left and Right Panels: 10 cm

  Rear Panel: 10 cm

  Top Panel: 50 cm

IMPORTANT SAFETY INSTRUCTIONS

IMPORTANT INFORMATION FOR UK CUSTOMERS

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer. If, nonetheless, the mains plug is cut off, REMOVE THE FUSE and dispose of the PLUG immediately, to avoid possible shock hazard by inadvertent connection to the mains supply. If this product is not provided with a mains plug, or one has to be fitted, then follow the instructions given below:

IMPORTANT

DO NOT make any connection to the larger terminal which is marked with the letter 'E' or by the safety earth symbol or colored GREEN or GREEN AND YELLOW.

The wires in the mains lead on this product are colored in accordance with the following code:
> BLUE – NEUTRAL
> BROWN – LIVE

As these colors may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:
> The BLUE wire must be connected to the terminal marked with the letter 'N' or colored BLACK.
> The BROWN wire must be connected to the terminal marked with the letter 'L' or colored RED.

When replacing the fuse, only a correctly rated and approved type should be used, and be sure to re-fit the fuse cover.

IF IN DOUBT CONSULT A COMPETENT ELECTRICIAN.

NOTES ON ENVIRONMENTAL PROTECTION

At the end of its useful life, this product must not be disposed of with regular household waste but must be returned to a collection point for the recycling of electrical and electronic equipment. The symbol on the product, user's manual and packaging, point this out.

The materials can be reused in accordance with their markings. Through re-use, recycling of raw materials or other forms of recycling of old products, you are making an important contribution to the protection of our environment. Your local administrative office can advise you of the responsible waste disposal point.

NOTE: THE VISO TWO IS NOT AN AUTO VOLTAGE DVD RECEIVER. CONNECT ONLY TO THE PRESCRIBED AC OUTLET, I.E., 120V 60HZ OR 230V 50HZ.

RECORD YOUR MODEL NUMBER (NOW, WHILE YOU CAN SEE IT)

The model and serial number of your new VISO TWO are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

Model no: . . . .

Serial no.: . . . .

ENGLISH

THANK YOU FOR CHOOSING NAD.

The VISO TWO DVD Receiver is a technologically advanced and highly capable product — yet we have invested great effort in making it simple and easy to use. The VISO TWO delivers a range of genuinely useful options for stereo listening, using powerful digital signal processing and superbly accurate digital-audio circuitry. However, we have also been careful to ensure that the VISO TWO is as musically transparent and spatially accurate as possible, incorporating much of what we've learned from a quarter century's experience designing audio and home-theater components. As with all our products, NAD's "Music First" design philosophy guided the VISO TWO's design, such that it can confidently promise you both state-of-the-art home-theater and audiophile-quality music listening for years to come.

We encourage you to take a few minutes now to read right through this manual. Investing a little time here at the outset might save you a good deal of time later, and is by far the best way to ensure that you make the most of your investment in the NAD VISO TWO, and get the most from this powerful and flexible home-theater component.

One more thing: We urge you to register your VISO TWO ownership on the NAD Worldwide Web site:
http://NADelectronics.com/warranty

For warranty information contact your local distributor.

INTRODUCTION

ABOUT VISO TWO

Though the VISO TWO is among the most technically sophisticated DVD Receivers, we worked hard to make it one of the most musically transparent home-theater components available as well; this is what we mean by NAD's "Music First" design philosophy. Here are just few examples:

- High-performance components used throughout VISO TWO's analog audio circuits to maximize quality from all sources, including multi-channel analog sources such as DVD-Audio.
- The VISO TWO has exceptional playability. It has support for DVD-Video, DVD-R/-RW/+R/+RW, DVD-A, SVCD with or without PBC (Play Back Control), VCD, DivX, Audio CD, CD-R/-RW and including recorded MP3, copyright-protected WMA and JPEG files.
- An RS-232 port for advanced zone control and software update through a Windows® compatible PC.
- Gold-surfaced connectors are employed throughout to ensure maximum signal integrity.

EASE OF USE

Despite the effort NAD has invested in the VISO TWO's sonic performance, we expended no less in making it powerfully easy to use. Its design is uniquely simple for so sophisticated a component, and the HTR 6 universal remote control is equally understandable, as are the VISO TWO's own front-panel and on-screen displays.

RS 232

Flexible system configuration is possible with the RS-232 interface and NAD's proprietary Windows® compatible software. We are also certified partners with AMX and Crestron and fully support these external devices.

This interface allows complete remote control of the VISO TWO from any remote location via the PC. Complete remote control functionality is available to the user by interface software. See your NAD audio specialist for further information.

UPGRADABILITY

The VISO TWO permits flexible system growth. We have made the more likely scenario of software upgrades easy to accomplish via the high speed RS-232 port on the rear panel (and in combination with the LOAD SW switch also on the rear panel). Owners who register their VISO TWO on our international web site www.NADelectronics.com will be advised of updates. Some of these may be free of charge, and some may require royalty payments depending on the type of upgrade. The advanced user will be able to perform these upgrades by downloading files from our web site, via e-mail and installing them by connecting the VISO TWO to a PC. Alternatively the dealer from whom you purchased your VISO TWO should be able to assist in performing these upgrades.

ABOUT THE HTR 6 SYSTEM REMOTE CONTROL

Packed with your VISO TWO is the NAD HTR 6 remote control, a full-system remote especially designed for easy use and understanding. Be sure to read the section "Using the HTR 6 Remote Control", to familiarize yourself with the remote's layout and operations before proceeding to setup your VISO TWO. You may opt to use your HTR 6 as your primary way to command your entire AV system. The HTR 6 can be employed to operate additional NAD or other-brand components such as a DVD/CD player, television, satellite/HDTV tuner, VCR, or virtually anything else that operates via standard infrared remote.

WHAT'S IN THE BOX

Packed with your VISO TWO you will find
- An AM loop antenna.
- A FM ribbon-wire antenna with balun.
- A removable AC cable (if you wish, any IEC-standard AC cable of suitable wattage may be substituted).
- The HTR 6 remote control with 4 (four) AAA batteries.
- This owner's manual.

SAVE THE PACKAGING

Please save the box and all of the packaging in which your VISO TWO arrived. Should you move or otherwise need to transport your VISO TWO, this is by far the safest container in which to do so. We've seen too many otherwise perfect components damaged in transit for lack of a proper shipping carton, so please: Save that box!

CHOOSING A LOCATION

Choose a location that is well ventilated (with at least several inches to both sides and behind), and that will provide a clear line of sight, within 23 feet/7 meters, between the VISO TWO's front panel and your primary listening/viewing position—this will ensure reliable infrared remote control communications. The VISO TWO generates a modest amount of heat, but nothing that should trouble adjacent components.

It is especially important that sufficient ventilation be provided. If you are contemplating on locating the VISO TWO within a cabinet or other furniture, consult your NAD audio/video specialist for advice on providing adequate airflow.

QUICK START

In case you simply cannot wait to experience the performance of your new NAD VISO TWO, we provide the following "Quick Start" instructions to get you underway. Before the steps below, connect your VISO TWO to a TV/monitor.

Please make all the connections to your VISO TWO with the unit unplugged. It is also advisable to power-down or unplug all associated components while making or breaking any signal or AC power connections.

PLAY A CD OR DVD MOVIE

- Connect the VISO TWO's composite Video or S-Video "MONITOR OUT" jack to your TV/monitor's corresponding input.
- Connect your speakers to the VISO TWO's "L" and "R" terminals. Make sure to connect red to red ("+") and black to black ("-") with care to avoid stray wires or strands crossing between terminals. If your system includes a powered subwoofer, connect the VISO TWO's "SUBWOOFER PRE-OUT" jack to its line input.
- Connect the AC cord to the AC inlet and then plug into an AC outlet; the LED indicator around the POWER button will be illuminated amber indicating the VISO TWO is in standby mode ready to accept commands from either the front panel power switch or the HTR 6 remote.
- Press "DVD" at the HTR 6 remote's Device Selector section and then "OPEN/CLOSE" button.
- Insert the media and press [▶ PLAY] button to start playback. You should hear sound from VISO TWO, and see an image on the TV/monitor. (If one or the other fails to appear, check your TV/monitor's input settings or VISO TWO's audio/video connections).

Enjoy the movie or music, but be sure to set aside time to read this manual thoroughly, and to set up, calibrate, and configure your VISO TWO carefully and completely.

IDENTIFICATION OF CONTROLS

FRONT PANEL
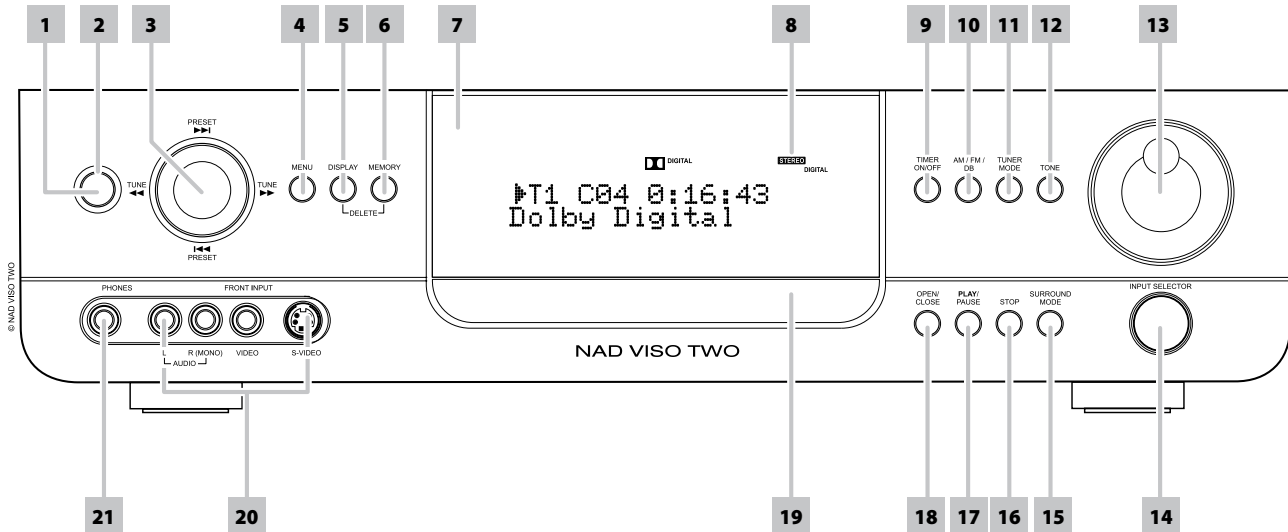
1 **POWER BUTTON:** Press this button or the HTR 6 remote's [ON] button to switch ON the VISO TWO. The Standby LED indicator will turn from amber to blue and illuminate the VFD. Pressing the power button again or HTR 6's [OFF] button turns the unit back to standby mode.

Note that when you do choose to switch OFF to standby using the front panel Power button, the VISO TWO's memory back-up system will store channel level, tuner preset, and other settings for several weeks while the unit is switched off.

Pressing the [OPEN/CLOSE] button on the front-panel or the HTR 6 remote's [▲] button will switch ON the VISO TWO from standby mode and at the same time open the disc tray.

NOTE

It takes around 10 seconds for VISO TWO to switch to full standby mode when it is powered OFF from source inputs other than DVD mode. In this condition, it also takes around 10 seconds for the standby LED to switch from blue to amber color.

2 **STANDBY LED:** This indicator will light up amber when the VISO TWO is in standby state. When the VISO TWO is at ON state, this indicator will illuminate blue.

3 **NAVIGATION AND ENTER BUTTONS:** The navigation buttons [PRESET ◄◄ / ►►I] / [TUNE ◄◄ / ►►] in conjunction with the [ENTER] button allows one to navigate the OSD, title and menu options.

In AM/FM/XM mode, use [PRESET I◄◄ / ►►I] to step up or down between radio presets. "Unused" presets are skipped over. Note that Presets must have been previously stored. Refer also to the item on "SETTING RADIO PRESET" under "OPERATION - USING THE VISO TWO – AM/FM/DB/iPod" discussions.

Pressing momentarily the [TUNE ◄◄ / ►►] button will manually scan the AM or FM band. Press and hold for more than 2 seconds to search up or down; the VISO TWO's tuner will stop at the next sufficiently strong signal it encounters. Note that this function, too, "wraps" and will continue searching up or down from one end of the AM or FM band to the other.

At DVD mode, press [►►I] to skip forward or [I◄◄] to skip backward a track, file or chapter. Press [◄◄ / ►►] during disc playback to select the desired scanning speed.

When setting up the Timer, use the [I◄◄ / ►►I] buttons to change the hours and minutes.

4 **MENU:** Press this button to bring up the DVD disc menu during DVD disc playback, stop, pause or stop-resume mode. At FM/XM/DAB mode, the MENU button also functions the same way as that of TUNER MODE button. See also TUNER MODE description below.

5 **DISPLAY:** At TUNER mode, toggle this multifunction button to display at the VFD relevant information of a currently tuned FM, XM or DAB station.

At CABLE/SAT, VCR or Front source mode, toggle DISPLAY button to select optical, coaxial audio input or the assigned analog audio input of the particular source.

When in DVD mode, toggle DISPLAY button to alternatively display the general disc playback status of the DVD display navigation menu.

6 **MEMORY:** Use to store tuned stations to the VISO TWO's preset-memory locations. Refer also to the item on "SETTING RADIO PRESET" under "OPERATION - USING THE VISO TWO – AM/FM/DB/iPod" discussions.

7 **REMOTE SENSOR:** Point the HTR 6 remote control at the remote sensor and press the buttons. Do not expose the remote sensor of the VISO TWO to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the VISO TWO with the remote control.

Distance: About 23ft (7m) from the front of the remote sensor.
Angle: About 30o in each direction of the front of the remote sensor.

8 **VACUUM FLUORESCENT DISPLAY (VFD):** Provides visual information about the unit's important modes, settings, functions, status of the current source like disc playback time and other indicators.

9 **TIMER ON/OFF:** In combination with [PRESET I◄◄ / ►►I] and [MEMORY] buttons, press and hold or toggle to set the internal clock, ON/OFF timer as well as enable the timer modes. Refer also to the item on "TIMER SETUP" under "OPERATION – USING THE VISO TWO – FEATURES" discussions.

10 **FM/AM/DB:** Toggle this button to select either AM, FM, DAB (Europe version) or XM (North America version) tuner functions.

11 TUNER MODE: In FM mode, this button will toggle between FM Stereo and FM mono. Select FM Mono (FM STEREO and FM MUTE icons at VFD are extinguished) for stations that have too much interference or are too weak. In DAB (European version only) or XM (North America version only) radio, this button enables the digital radio menus in conjunction with the Navigation button and ENTER buttons.

At FM/XM/DAB mode, the MENU button also functions the same way as that of TUNER MODE button.

12 TONE: Press to toggle through Bass, Treble, Tone Defeat and Tone Active options. Use the VOLUME knob to adjust the Bass and Treble levels. While at either Bass or Treble mode, rotate VOLUME knob clockwise or counterclockwise to adjust the Bass or Treble level within the range ±12dB.

13 VOLUME: Turn clockwise to increase the master-volume setting; counter clockwise to lower it. The VOLUME knob is also used to increment/decrement the Bass and Treble levels.

14 INPUT SELECTOR: Use to select an audio/video input source along with its assigned analog or digital inputs. Rotate clockwise or counter clockwise to select - Internal DVD ➜ Cable/Sat ➜ VCR (iPod) ➜ Front ➜ AM/FM/XM (DAB) ➜ then back to Internal DVD.

15 SURROUND MODE: Toggle to select through the SURROUND MODE options. See also the section "LISTENING MODE" under "OPERATION - USING THE VISO TWO – AUDIO SETUP MENU" discussions.

NOTES

• *Depending on the format of the currently selected input (digital or analog), different surround modes will be available.*
• *For best results when recording to a VCR, select "Mode: Stereo" and "Sub: Off" in the applicable Setup Menu OSD.*

16 STOP: During disc playback, press this button to STOP and at the same time PAUSE disc playback – "RESUME" will be shown at the VFD. Press [PLAY/PAUSE] button to resume play from the spot it was stopped. If [STOP] button is pressed consecutively during playback, disc playback will fully stop. At full stop mode, "STOP" will be shown in the VFD for DVD playback, total number of tracks and total playback time for CD playback and "CLIPMENU" is displayed in the case of MP3/WMA/JPEG file playback.

17 PLAY/PAUSE: Press this button to toggle between Play and Pause of a compatible disc. If the disc tray is open, press this button to automatically close the tray and start playback if a disc is loaded.

18 OPEN/CLOSE: Press this button to open and close the disc drawer and simultaneously select the internal DVD/CD player. Pressing this button will also switch ON the VISO TWO from standby mode and at the same time open the disc tray.

19 DISC TRAY: With the DISC TRAY open, insert a DVD, VCD, CD or other compatible media disc face down onto the tray. If the disc is placed upside down and it is a single sided disc, "NO DISC" appears on both the VISO TWO's VFD and the TV/Monitor screen.

20 FRONT INPUT: Use these convenience jacks for occasional sources such as a camcorder, tape player, or a video game console or any other analog audio, or composite or S-Video video source. Select the "Front" source input using the HTR 6 remote or the front panel INPUT SELECTOR knob.

If your source has a single audio out jack only or is marked "mono output", plug this into the VISO TWO's FRONT INPUT "R (MONO)" input. On the other hand, if your source has two output jacks indicative of stereo output, insert both jacks into the VISO TWO's corresponding FRONT INPUT "L" and "R (MONO)" input to achieve stereo output as well.

21 PHONES: Accepts stereo headphone using a standard 1/4-inchstereo phone plug (use a suitable adaptor for headphones equipped with a smaller plug). Plugging in headphones automatically mutes output from all channels' speakers but not from the AUDIO OUT jacks of the VCR and SCART OUT (Europe version only). See also the item on DOLBY HEADPHONE under the LISTENING MODE section of AUDIO SETUP MENU discussion.

IDENTIFICATION OF CONTROLS

REAR PANEL
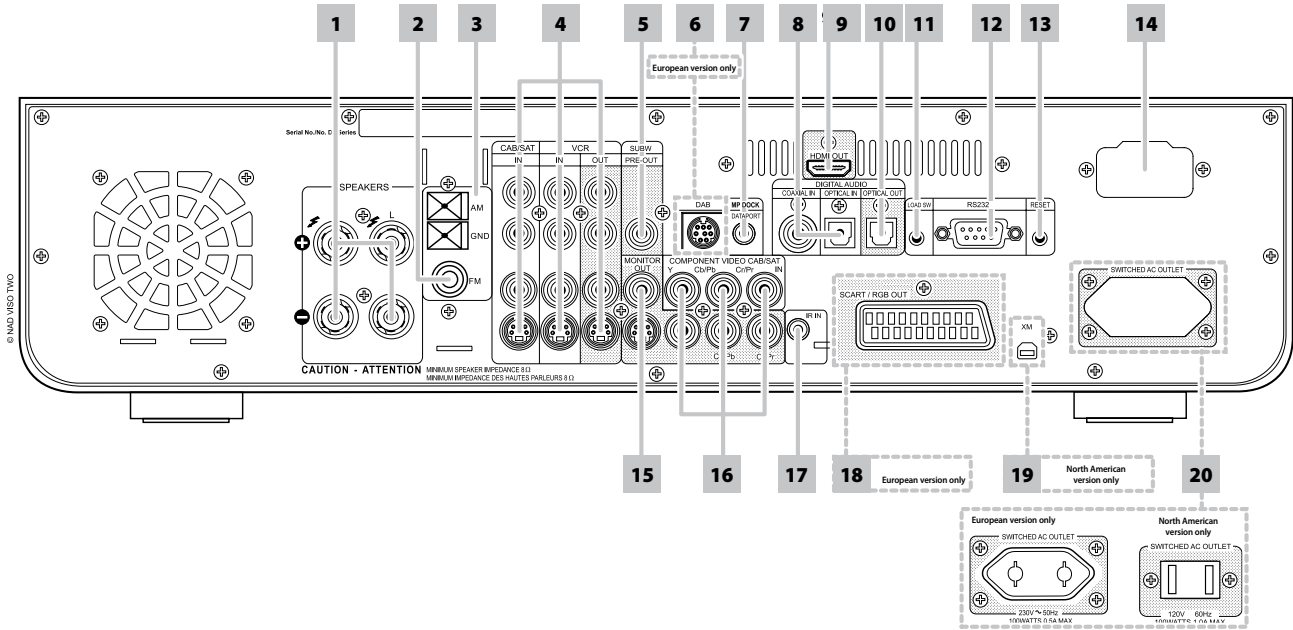
ATTENTION!

Please make sure that the VISO TWO is powered off or unplugged before making any connections. It is also advisable to power-down or unplug all associated components while making or breaking any signal or AC power connections.

1 SPEAKERS: Connect the left and right terminals to the corresponding loudspeakers. Each output's "+" (red) terminal and "-" (black) terminal must be connected to the corresponding "+" and "-" terminals of the loudspeaker. Use extra care to ensure that no stray wires or strands cross between posts or terminals at either end.

NOTES

- *Use stranded wire of at least 16-gauge (AWG); specialized speaker cable may be valuable (consult your NAD audio specialist). Connections to the VISO TWO can be made with banana-type plugs, or using bare wire, or pins, by loosening the terminal's plastic nut, making a clean, neat connection, and re-tightening carefully (use the transverse hole through the post for bare-wire or pin connections). To minimize the danger of short-circuits, ensure that only 1/2-inch of exposed wire or pin is employed in connecting.*
- *This unit is designed to produce optimum sound quality when connected to speakers with impedances within the receiver's operating range. Please check that speakers are rated to be 8 ohms minimum per speaker.*

2 FM ANTENNA INPUT: The supplied wire "dipole" FM antenna will connect to the FM connector using the supplied "balun" adapter. It will usually work best when mounted on a vertical surface such as a wall, with arms fully outstretched forming a horizontal "T" perpendicular to the origin point of the signal.

3 AM ANTENNA INPUT: Connect the supplied AM loop antenna to these terminals. If an external AM antenna is used, make connections to the AM and GND terminals in accordance with the instructions supplied with the antenna. See also section about "LISTENING TO AM/FM RADIO".

4 CABLE/SAT & VCR: Connect to these inputs S-Video, composite video, and analog audio from source components such as cable TV decoders, satellite tuners, another DVD player or other applicable ancillary devices. VCR may be used with recording components such as videocassette or DVD-recorders. Connect the VCR OUT (audio/video) to these components' corresponding audio/video input. Note that VCR may freely be used for play-only components, in which case their OUT jacks would remain unconnected.

5 SUBW (SUBWOOFER) PRE OUT: Connect this output to a powered (active) subwoofer or to a power amplifier channel driving a passive system.

6 DAB MODULE INPUT (Europe version only): Plug-in the other end of the Mini-Din connector from the NAD DAB Adaptor DB 1 module output port into this socket. The VISO TWO is compatible only with NAD DAB Adaptor DB 1 so check with your NAD dealer for this module's availability. With DAB, you can receive CD-like quality programs without any annoying interference and signal distortion.

7 MP DOCK: The VISO TWO is equipped with a data port in the rear panel where an optional "NAD IPD 1 Dock with iPod" (NAD IPD 1) can be plugged in. Connect the "MP DOCK (DATA PORT)" jack of the VISO TWO to the corresponding "DATA PORT" socket of the optional NAD IPD 1.

8 COAXIAL IN, OPTICAL IN: Connect to the optical or coaxial S/PDIF-format digital output of sources such as CD or DVD players, HDTV or satellite tuners and other components.

9 HDMI OUT: Connect the HDMI OUT to a HDTV or projector with HDMI input.

WARNING

Before connecting and disconnecting the HDMI cable, both the VISO TWO and the ancillary source must be powered OFF and unplugged from the AC outlet. Failure to observe this practice may cause permanent damage to the equipment connected via the HDMI socket.

IMPORTANT NOTICE

When playing DTS (or Dolby Digital) material, ensure that the volume of your HDMI equipped TV is muted. There may be a rushing noise heard if your TV is not capable of decoding the DTS (or Dolby Digital) Bitstream; most TVs do not have this capability.

10 OPTICAL OUT: Connect the optical digital OUT port to the corresponding S/PDIF digital input of a compatible device such as CD recorders, receivers, computer soundcard or other digital processors.

11 LOAD SW: For future software program updates, use this button in combination with RS232 to upgrade the VISO TWO. Owners who register their VISO TWO in our international website www.nadelectronics.com will be advised of updates. Your custom installer or dealer can assist you in the proper upgrade and setup of your VISO TWO.

12 RS-232: Connect this interface via RS-232 serial cable (not supplied) to any Windows® compatible PC to allow remote control of the VISO TWO through NAD's proprietary PC software or other compatible external controllers. NAD is a certified partner of AMX and Crestron and fully supports these external devices. See your NAD audio specialist for more information.

13 RESET: In the unlikely event that the VISO TWO becomes inoperable or hangs up, press this button to reset the VISO TWO.

14 IEC AC MAINS (POWER) INPUT: The VISO TWO comes supplied with a separate AC Mains cable. Before connecting the cable to a live wall socket ensure that it is firmly connected to the VISO TWO's AC Mains input socket first. Always disconnect the AC Mains cable plug from the live wall socket first, before disconnecting the cable from the VISO TWO's Mains input socket.

15 MONITOR (S-VIDEO, VIDEO): Connect to video input of a monitor/television using quality dual-RCA and/or S-Video cables designed for video signals. In general, the S-Video connection is superior and should be used if your TV/monitor provides the corresponding input.

16 COMPONENT VIDEO IN, COMPONENT VIDEO OUT: Connect the Component Video IN to Component Video outputs from compatible source components, typically a DVD player and terrestrial or satellite HDTV tuner. Connect Component Video OUT to the Component Video input of a compatible video monitor/TV. Be sure to observe consistency in connecting the Y, Cb/Pb, Cr/Pr jacks to the corresponding sources/inputs.

17 IR IN: This input is connected to the output of an IR (infrared) repeater (Xantech or similar) or the IR output of another component to allow control of the VISO TWO from a remote location. Ask your dealer or custom installer for further details.

18 SCART/RGB OUT (Euro model/PAL only): Connect the VISO TWO's "SCART/RGB OUT" to the SCART/RGB video input of a compatible video monitor/TV. Be sure to observe the correct orientation of the SCART/RGB plug. Make sure also to set "Video Output" to "RGB" at the "Disc Video" menu for stable video at SCART/RGB OUT.

19 XM MODULE INPUT (North America version only): Connect XM radio cable to this socket. Follow the instructions that came with your XM radio. With XM radio, there are more than 100 channels of music, news, sports, comedy, talk and entertainment. You will find that the coverage is continent wide. The music quality is digital with many commercial-free music channels.

NOTE

- *Questions? Visit www.xmradio.com*
  Listeners can subscribe by visiting XM on the Web at www.xmradio.com or by calling (at the time of printing this manual) XM's Listener Care at (800) 853 9696. Be ready with your Radio ID that can be found on the radio by selecting Channel 0.

20 SWITCHED AC OUTLET: This convenience outlet can supply switched power to another component or accessory. It is powered ON and OFF by the front panel POWER SWITCH or by the HTR 6's ON and OFF keys.

SETUP

SETTING UP THE VISO TWO

ABOUT THE ON-SCREEN DISPLAY (OSD)

The VISO TWO employs a self-explanatory on-screen display "menu" that will appear on the connected video monitor/TV. These are required during the setup process (and are useful in day-to-day operation), so be sure to connect the monitor/TV before proceeding with setup.

DISPLAY THE VISO TWO SETUP MENU

```
┌─────────────────────────────┐
│         Setup Menu          │
├─────────────────────────────┤
│                             │
│       Audio Setup Menu      │
│                             │
│       Video Setup Menu      │
│                             │
│        OSD Language         │
│                             │
│            Exit             │
│                             │
│                             │
└─────────────────────────────┘
```

At any source mode, press the HTR 6's [SETUP] button for the Setup Menu OSD to appear. With the use of the HTR 6's navigation buttons, you may select various menus. If the Setup Menu does not appear, check your applicable video connections.

NOTE

The Setup Menu will not appear if a headphone is plugged-in at the front panel's PHONES jack. Unplug the headphone for the Setup Menu to appear when HTR 6's [SETUP] button is pressed.

NAVIGATING THE SETUP MENU OSD AND MAKING CHANGES
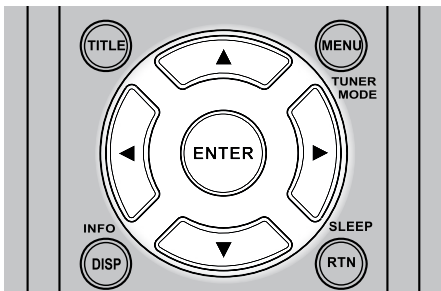
To navigate through the Setup Menu OSD options, please do the following using the HTR 6 remote control:
1 Press [▲/▼] keys to move up or down the menu selections.
2 Press [ENTER] to select a menu.
3 Use [◄/►] or [ENTER] keys to select through the options of a particular menu.
4 To save a menu item that you have set up, use [▼] key to scroll down and select the particular menu's "Save & Exit" option. Press [ENTER] to save the settings and at the same time exit the menu. Select "Do not Save & Exit" if you choose not to implement the settings you have set up.

To exit the Setup menu or from a menu option without saving, press HTR 6's [SETUP] key.

DISPLAY DISC OSD

You can display the general disc playback status on the TV screen. Some items can be changed using the menu. To use the on-screen display:
1 Press the HTR 6's [DISP] during playback.
2 Press [◄/►] to select an item. The selected item is highlighted.
3 Key-in the desired the number button or press [ENTER] as applicable.
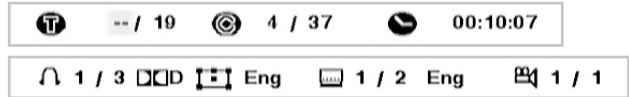
NOTES
- The display feature may not be available for all disc media and is media dependent.
- Display disc OSD does not apply to audio only discs like CD and MP3/WMA/JPEG files as they are already presented in their respective menu screens.
- The front panel and HTR 6's [DISP] button toggles between title/chapter/time (or group/track/time for DVD-A discs) and audio/subtitle/angle display configurations.
- If no button is pressed for about 10 seconds, the on-screen display disappears.

SELECTING SOURCES

You can choose your desired source by rotating the INPUT SELECTOR knob to select through the following:

Internal DVD ➔ Cable/Sat ➔ VCR (iPod) ➔ Front ➔ AM/FM/XM (DAB) ➔ then back to Internal DVD.

The same source can be directly selected using the HTR 6 remote control.
1 Set HTR 6's DEVICE SELECTOR to "AMP".
2 Press your desired source's corresponding numeric keypad allocation. The orange label directly above the appropriate numeric keypad is the Source allocated for such key – example: "1" for DVD, "2" for CAB/SAT and so on.

When you change sources, the VFD will show the new input in its upper line display.

ADJUSTING THE VOLUME

In addition to the Volume knob, use the HTR 6's [VOL ▲/▼] to adjust the "master volume" of the VISO TWO raising or lowering the channels altogether. A momentary keypress will change the master volume by 1 dB increments. If you hold down [VOL ▲/▼] the master-volume change will "run-on" until the key is released.

Since recordings vary considerably in overall average level, there is no imperative to listen at any particular master-volume setting. A setting of -20 dB may sound "as loud" from one CD or DVD as -10 dB does from another.

The VISO TWO will power-up from Standby mode at whatever master volume setting it was last used; however, if the prior setting was greater than –15 dB, the VISO TWO will power up at –15 dB. This prevents inadvertently beginning a session at excessive volume.

MUTING THE SOUND

Use the HTR 6's "MUTE" key to silence all channels completely ("Mute" is displayed in the lower line of the VFD). Muting is always available regardless of the source or listening mode selections.

NOTE

Adjusting the master-volume via the HTR 6 or the front-panel knob automatically releases the mute function.

ADJUSTING THE SUBWOOFER LEVEL TRIM "ON THE FLY"

You can make changes to the relative level of subwoofer output. This may prove useful in a number of circumstances; for example to reduce excessive deep bass (or enhance deep bass) by lowering (raising) the subwoofer level.

Use the HTR 6's 'SUB' keys for direct-access level adjustment of these channels over a range of ±12 dB.

ADJUSTING THE TONE CONTROLS

The VISO TWO bass and treble controls are adjusted using the front panel's [TONE] button in conjunction with the VOLUME knob.

Referring to the lower line of the VFD, toggle [TONE] button to select "Bass", "Treble", "Tone Active" or "Tone Defeat". While at either Bass or Treble mode, rotate VOLUME knob clockwise or counterclockwise to adjust the Bass or Treble level within the range ±12dB.

Bass and treble settings affect only the front left/right channels, and are active in all SURROUND MODES.

Select "Tone Defeat" to bypass the Tone Controls effectively defeating the effect of the tone control circuits. If "Tone Active" is selected, the Tone Control circuits are active.

FACTORY DEFAULT SETTINGS

Sometimes power spikes and drop-outs may from time to time cause some inadvertent functionality. The procedure below will set the VISO TWO to factory default settings
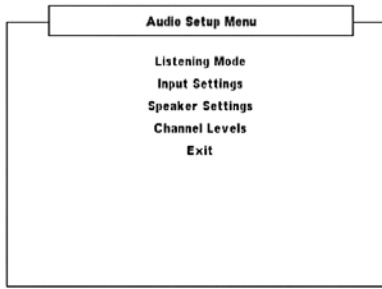
1   Place the VISO TWO into AM mode.
2   Press quickly the three front panel buttons: [PLAY/PAUSE], [STOP] then [DISPLAY], holding the "DISPLAY" button for more than 7 seconds. The VISO TWO will switch itself off, then back ON to DVD mode.

Please note that setting the VISO TWO to factory default will delete all AM, FM and DAB presets. It will also reset all your timer settings.
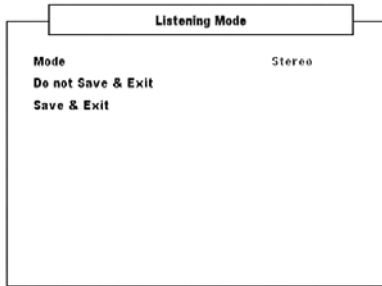
OPERATION

USING THE VISO TWO – AUDIO SETUP MENU

ENGLISH

AUDIO SETUP MENU

```
┌─────────────────────────────┐
│       Audio Setup Menu      │
└─────────────────────────────┘

        Listening Mode
        Input Settings
        Speaker Settings
        Channel Levels
            Exit
```

LISTENING MODE

```
┌─────────────────────────────┐
│       Listening Mode        │
└─────────────────────────────┘

Mode                   Stereo
Do not Save & Exit
Save & Exit
```

The VISO TWO offers distinct SURROUND MODES tailored for different types of recordings or program material. With a two-channel (Stereo) source, the following listening modes can be selected:

DOLBY® VIRTUAL SPEAKER (DVS)

Dolby Virtual Speaker technology creates a highly compelling 5.1-channel listening experience from as few as two speakers, making it an ideal entertainment solution for locations where space for multiple-speaker setups is limited.

Dolby Virtual Speaker models the sound of a playback system into two different listening environments, based on acoustic measurements of real rooms:

DVS Reference is a small, well-damped room appropriate for both movies and music-only recordings.
DVS Wide is a larger room, more like a concert hall or movie theatre.

STEREO

All output is directed to the front left/right channels. Low frequencies are directed to the subwoofer if one is present in the Speaker settings. Select "Stereo" when you wish to listen to a stereo (or monaural) production, such as music CD or FM broadcast, without surround enhancement. Stereo recordings whether in PCM/digital or analog form and whether surround-encoded or not encoded, are reproduced as recorded. Multi-channel digital recordings (Dolby Digital and DTS) are reproduced in "Stereo Downmix" mode via the front left/right channels only as Lt/Rt (left/right-total) signals.

The following Listening Modes require a specially encoded signal that must be present in digital format to be decoded by the VISO TWO. These modes are automatically switched on when the appropriate data stream is detected. The desired data stream must sometimes be selected in the setup menu of the source media.

DOLBY DIGITAL

Dolby Digital is the multi-channel digital signal format developed in the Dolby laboratories. Discs bearing the double-D symbol were recorded with up to 5.1 channels of digital signals, reproducing a much better sound quality, with dynamic and spatial sound sensations that are much better than in the previous Dolby Surround.

DYNAMIC RANGE CONTROL (DYN RANGE)

You can select the effective dynamic range (subjective range from soft to loud) for playback of Dolby Digital soundtracks. For fully cinematic effect, always select 100% - the default. Settings of 75%, 50% and 25% progressively reduce dynamic range, making soft sounds comparatively louder while limiting the peak loudness of loud ones.

The 100% setting is best for late-night sessions or other times when you wish to retain maximum dialog intelligibility while minimizing overall volume levels. To maintain full dynamic range, set "DYN Range" to "Off".

IMPORTANT NOTICE

"DYN Range" will appear as one of the options under the "Listening Mode" menu only if the disc being played is of Dolby Digital format. The same applies when you select the digital audio input (coaxial or optical) as your audio source – Dynamic range adjustment will be available at the "Listening Mode" menu only if the detected audio is of Dolby Digital format.

DTS

The Digital Theater System Digital Surround (simply called DTS) is a multi-channel digital signal format that can process higher data rates than with Dolby Digital. Although both Dolby Digital and DTS are 5.1 channel media formats, discs bearing the "DTS" symbol are thought to provide better sound quality due to the lower audio compression required. It also offers a broader dynamic, producing magnificent sound quality.

DOLBY® HEADPHONE

Dolby Headphone technology, compatible with any pair of conventional headphones, accurately simulates the experience of hearing a 5.1-channel speaker system properly set up in a listening room, minus the annoying "listener fatigue" effect that plagues other headphone-based virtual surround sound offerings. Dolby Headphone technology is ideal for private playback of multi-channel entertainment without disturbing others nearby.

Dolby Headphone models the sound of a playback system into three different listening environments, based on acoustic measurements of real rooms:

DOLBY HP MODE 1 is a small, well-damped room appropriate for both movies and music-only recordings. This decoding process is known as the Dolby Headphone "Reference Room".
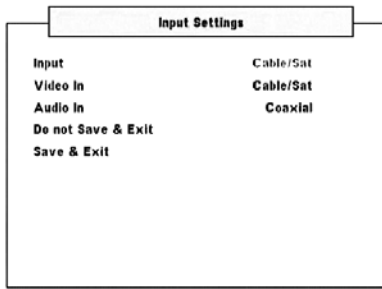**DOLBY HP MODE 2** is a more acoustically live room suited to music listening, but also great for movies.
DOLBY HP MODE 3 is a larger room, more like a concert hall or movie theatre.
Select DOLBY HP OFF for normal headphone audio listening.

INPUT SETTINGS

```
┌─────────────────────────────────┐
│         Input Settings          │
│                                 │
│  Input              Cable/Sat   │
│  Video In           Cable/Sat   │
│  Audio In             Coaxial   │
│  Do not Save & Exit             │
│  Save & Exit                    │
│                                 │
└─────────────────────────────────┘
```

INPUT

Aside from the VISO TWO's internal DVD, the VISO TWO is also equipped with the following audio/video source inputs - "Cable/Sat", "VCR" (iPod) and "Front" (Front Input on the front panel). The input becomes active whenever it is selected.

Use [◄/►] select through DVD, Cable/Sat, VCR (iPod) and then back to DVD.

VIDEO IN

A particular video input can be assigned to any of the following source inputs - Cable/Sat, VCR (iPod) and Front. Ideally, a video input present at the video input of a particular source input should be assigned to the same source input. For example, a video input present at S-video input of VCR should be the assigned video input for VCR source input. This is actually the default setting. This can be varied though by assigning a different active video input other than the particular source's default video input setting.
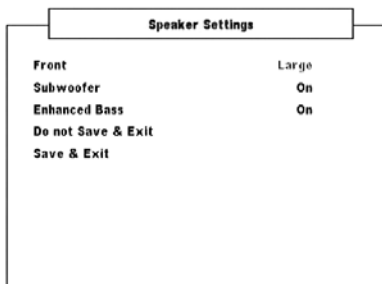
AUDIO IN

Incoming digital and audio signals present at either digital or analog audio are assignable to any of the following source inputs - Cable/Sat, VCR and Front. Use [◄/►] to assign coaxial, optical or analog audio to any of the aforementioned sources.

The assigned audio input will always be recalled whenever that input is selected using the front panel INPUT SELECTOR knob or the HTR 6 remote's input-select buttons.

It is not necessary to connect at the same time both analog audio and digital audio input for every video input you employ. It is preferable to make only digital audio link to the VISO TWO for audio playback. This avoids possible confusion and ensures that the VISO TWO's high performance digital audio circuitry will always be employed.

SPEAKER SETTINGS

```
┌─────────────────────────────────┐
│         Speaker Settings        │
│                                 │
│  Front                  Large   │
│  Subwoofer                 On   │
│  Enhanced Bass             On   │
│  Do not Save & Exit             │
│  Save & Exit                    │
│                                 │
└─────────────────────────────────┘
```

Every system requires "bass-management" to direct low-frequency content from any or all channels to the speakers best able to reproduce it. For this function to operate correctly, it is important that you correctly identify your speakers' capabilities. We use the terms "Large", "Small", "Mini" and "Off", but note that physical size may be irrelevant.

- A "Small" speaker is any model, regardless of physical size, that lacks significant deep-bass response. Set to SMALL if your speaker cannot handle lower than 100 Hz.
- A "Large" speaker is any full-range model, that is, one with deep-bass response. Set to LARGE if your speaker can handle 20 Hz - 20 kHz full frequency range.
- Select "Mini" if your speaker cannot handle lower than 150Hz.
- Set "Subwoofer" to "On" or "Off", selecting "On" only if you have a subwooder connected to VISO TWO's SUBW output jack.
- An "Off" speaker is one that may be present such as a subwoofer but set to "Off" in the "Speaker Settings" setup menu.
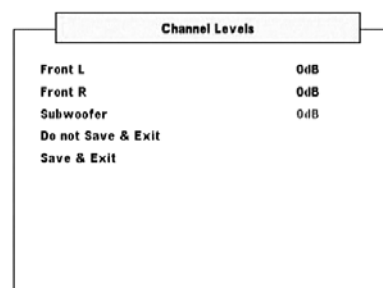
The "Speaker Settings" is "global"; that is, it remains in force with all inputs and in all LISTENING MODES.

ENHANCED BASS

When the subwoofer is set to ON and speakers are set to "Large", Enhanced Bass is also available. Normally, with Front speakers set to "Large" the subwoofer is not active. The Enhanced Bass option allows full range operation of the speakers with the additional bass contribution of the subwoofer. This feature is particularly useful when one wants to experience maximum bass output. Please note that due to acoustic cancellation effects, the bass response may be uneven when using this setting.

You can set Subwoofer to "On" even with "Large" front speakers. In such cases, both subwoofer and front speaker will receive the LFE-channel signal. In the case where the front speakers are set to "Small" the LFE-channel signal will be routed to subwoofer but not to the front speakers; LFE-channel signal will pass only to the subwoofer. In most subwoofer-equipped systems, setting front speakers to "SMALL" is usually the better option.

CHANNEL LEVELS

```
┌─────────────────────────────────┐
│         Channel Levels          │
│                                 │
│  Front L                  0dB   │
│  Front R                  0dB   │
│  Subwoofer                0dB   │
│  Do not Save & Exit             │
│  Save & Exit                    │
│                                 │
└─────────────────────────────────┘
```

Adjusting the relative balance of your system's loudspeakers ensures that recordings, whether music or film, will present the balance of effects, music, and dialog that the artists intended. Additionally, if your system incorporates a subwoofer it establishes a correct relationship between the volume of the subwoofer and the speakers, and thus of low-frequencies (bass) to other sonic elements.
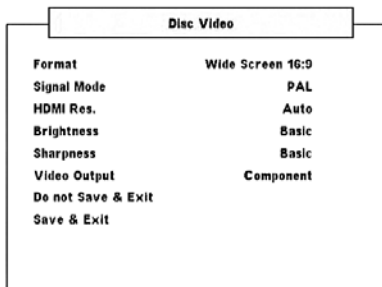
OPERATION

USING THE VISO TWO – VIDEO SETUP MENU

VIDEO SETUP MENU

```
            Video Setup Menu

              Disc Video
              Disc Audio
              Disc Language
              Parental Control
              DivX Setup
              Exit
```

DISC VIDEO

```
                Disc Video

     Format              Wide Screen 16:9
     Signal Mode         PAL
     HDMI Res.           Auto
     Brightness          Basic
     Sharpness           Basic
     Video Output        Component
     Do not Save & Exit
     Save & Exit
```

FORMAT
Set FORMAT to select a picture size matching the aspect ratio of your TV/Monitor.

Select "Pan Scan 4:3" or "Letter Box 4:3" when a standard 4:3 TV is connected.
Letter Box 4:3 : Displays a wide picture with bands on the upper and lower portions of the screen.
Pan Scan 4:3 : Automatically displays the wide picture on the entire screen and cuts off the portions that do not fit.

Widescreen 16:9 : Select when a 16:9 wide TV is connected. Set the widescreen TV to FULL mode if necessary.

NOTE
If you have a 16:9 display device and you have defaulted "Format" to "Widescreen 16:9", it does not mean you will always see movies in this format - Widescreen 16:9 display format must be supported by the disc being played in order to view the movie in widescreen format.

SIGNAL MODE
Depending on the type of TV/Monitor set you own, select the signal mode you wish to watch your disc. Refer to your TV/Monitor's owner's manual to check its signal or system mode capabilities.
Auto : Automatically detects the signal mode of your TV/Monitor.
NTSC : Select when the signal mode of your TV/Monitor is NTSC system.
PAL : Select when the signal mode of your TV/Monitor is PAL system.

HDMI RES (RESOLUTION)
HDMI video resolution can be adjusted with the VISO TWO connected to an HDMI-compatible component via HDMI OUT.
480P/576P, 720P, 1080I : Set applicable resolution depending on your TV/Monitor capability.
Auto : The best resolution is automatically selected based on your TV/monitor's capability.
Off : Select to turn off HDMI output.

NOTES
- *For settings other than "Auto", be sure that the selected resolution is supported by the HDMI-compatible monitor you are using. If the selected resolution is not supported, this setting is automatically switched to the most appropriate resolution.*
- *Picture quality may decrease when an HDMI cable longer than 5m is used.*

IMPORTANT NOTE ABOUT HDMI CONNECTION AND SETTING
With HDMI OUT connected to a HDMI-compatible component, component video out, composite and S-video output will only be available when "HDMI Res." is set to "480P/576P" or "Off". For component video out, composite and S-video to come up, unplug HDMI cable or undertake the following:
1 At DVD mode and with no disc loaded, "NO DISC", press and hold [DISPLAY] button. The lower line of the VFD will show the current HDMI resolution setting.
2 Use the remote's [◄/►] keys or toggle [MEMORY] button to select through 480P/576P, 720P, 1080I, AUTO or OFF. Select either "480P/576P" or "OFF" to enable component video out, composite and S-Video output. To set preferred resolution setting, stop at your desired resolution setting and release [◄/►] keys or [MEMORY] button.

BRIGHTNESS
Adjust overall brightness of the image. Set the brightness level over a range ±7. Select "BASIC" to maintain default brightness setting.

SHARPNESS
Picture sharpness could be easily lost during the recording/playback process. Adjust sharpness to improve the fine details of the picture. Set the sharpness level over a range ±7. Select "BASIC" to maintain default sharpness setting.
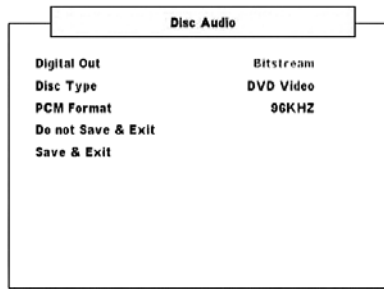
VIDEO OUTPUT (EUROPE VERSION MODEL ONLY)
Select between "Component" and "RGB" as your preferred video output media. Make sure the appropriate video out of VISO TWO is connected to the corresponding video input of your TV/monitor.

"RGB" video setting is preferable if your output media is through SCART OUT. At RGB setting, video signal is split into three fundamental colors Red, Green and Blue (RGB) resulting to greater picture resolution and elimination of artifacts associated with traditional composite video signals.

Select "Component" if you are not using SCART OUT as your output media.

USING THE VISO TWO – VIDEO SETUP MENU

DISC AUDIO

```
                  Disc Audio

Digital Out              Bitstream
Disc Type                DVD Video
PCM Format               96KHZ
Do not Save & Exit
Save & Exit
```

DIGITAL OUT

Set VISO TWO's "Digital Out" according to the type of audio system you use.

Bitstream: Select "Bitstream" if you connect the VISO TWO's digital OUT jack to an amplifier or other equipment with a Dolby Digital, DTS or MPEG decoder.

PCM: Select when connected to a two-channel digital stereo amplifier. DVDs encoded in Dolby Digital or MPEG will be automatically downmixed to two-channel PCM audio.

DISC TYPE

Some DVD-Audio discs contain the DVD-Video content in addition to the DVD-Audio content. You can choose DVD-Audio or DVD-Video mode depending on your preference.

DVD-AUDIO : Select to playback both DVD-Audio and DVD-Video contents. DVD-Audio content only may be played back depending on the disc.

DVD-Video : Select to playback only the DVD-Video content.

NOTES

- *This setting is only available when no disc is loaded in the disc tray.*
- *Selected mode becomes effective after you exit the setup menu.*
- *When a DVD-Audio disc is played back, "DVD Audio" is shown in the VFD.*
- *When you select "DVD-Video", "DVD-Video" will be briefly shown in the VFD and then reverts to normal display playback information.*

MOVING TO ANOTHER GROUP

Some DVD Audio discs divide content into different groups. Your player enables you to quickly access different groups during playback via the on-screen display.

1   Press DISP during playback
2   Press [◄/►] to highlight "G".
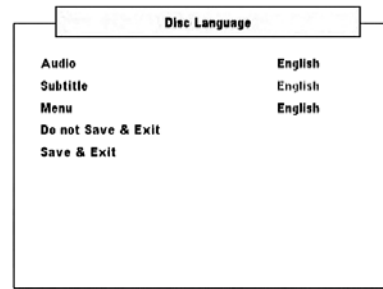3   Enter group number using the numeric buttons 0-9.

PCM FORMAT

The VISO TWO is compatible with both 48 kHz and 96 kHz PCM formats.

96kHz: Select to handle 96kHz signal - each type of signal will pass through without any further processing.

96kHz > 48kHz: Select for 96KHz signal to be automatically converted to 48KHz enabling decoding of compatible media.

DISC LANGUAGE

```
                 Disc Language

Audio                    English
Subtitle                 English
Menu                     English
Do not Save & Exit
Save & Exit
```

AUDIO/SUBTITLE/MENU

Depending on the DVD media, only the Audio, Subtitles and Menus recorded on the DVD media are available. When a language is chosen, it will become the default setting unless the DVD media overrides the settings.

Select among Original, English, French, German, Dutch, Spanish, Italian, Russian and Swedish as the desired language setting.
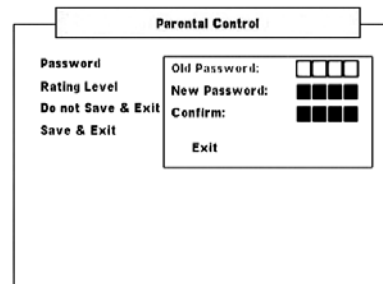If you do not want the disc's subtitles to be shown, select "Off".

PARENTAL CONTROL

```
                 Parental Control

Password
Rating Level             UNLOCK
Do not Save & Exit
Save & Exit
```
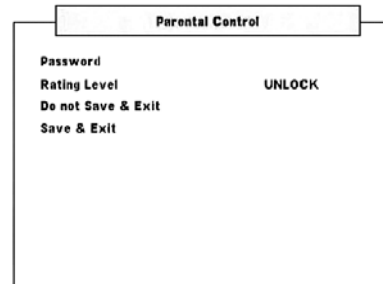
PASSWORD

PASSWORD is needed to gain access to the "Rating Level" below. The following are the steps for you to enable or change your password.

1   While at "Password" line menu, press [ENTER]. A menu screen like the one shown below will appear

```
                 Parental Control

Password           Old Password:   ████
Rating Level       New Password:   ████
Do not Save & Exit Confirm:        ████
Save & Exit
                        Exit
```

2   Input the 4-digit "Old Password" – the preset "Old Password" is "2580".
3   You can now set your own password by entering your desired 4-digit password at the "New Password" option. Press [ENTER].
4   After entering your new password, re-enter again your new 4-digit password at the "Confirm" option. Upon entering the correct password at "Confirm" option, the password menu window will turn off bringing you back to "Parental Control" menu screen.

NOTE

If the password entered at "Old Password" or "Confirm" window is incorrect, you will remain in the same menu item like "Old Password" or be returned to "New Password". You cannot move forward to the next sequence unless the correct password is entered. Select "Exit" in the password menu screen to exit the sequence if you are unable to enter the correct password.

OPERATION

USING THE VISO TWO – VIDEO SETUP MENU

RATING LEVEL (NORTH AMERICA VERSION ONLY)

Some movies contain scenes that may not be suitable for children to view. Many of these discs contain parental control information that applies to the complete disc or to certain scenes on the disc. Movies and scenes are rated from 1 to 8, depending on the country. Some discs offer more suitable scenes as an alternative.

The RATING feature allows you to block access to scenes greater than the rating you have set up, thereby preventing your children from being able to view material you believe is unsuitable. To activate "Rating", please be guided by the following:

1   While at "Rating" line menu, press [ENTER].
2   "Password _ _ _ _" will appear indicating that a password is needed to change the ratings level.
3   Input the password you have setup at the "Password" item as discussed above. Press [ENTER].
4   Upon entering the correct password, you can now set the parental rating level you prefer. Use [◄/►] to step through the rating levels.
5   After you have selected your preferred rating level, use [▼] to scroll down to "Save & Exit" option. Press [ENTER] to save the rating level you have chosen.

RATING 1-8

Rating one (1) has the most restrictions and "8" is the least restrictive.

UNLOCK

If you select unlock, parental lock is not active and the disc plays in full.

NOTE

Should you forget your password, reset your password by restoring the VISO TWO to its factory default settings. Refer to the "Factory Default Settings" section under the heading "SETUP - SETTING UP THE VISO TWO".

DIVX SETUP
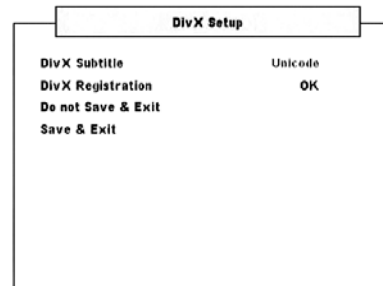
DIVX SUBTITLE

Depending on the DivX media, only those DivX Subtitles recorded on the DivX media are available. The following are the available DivX subtitle language format and their corresponding language coverage.

Western European: Albanian, Breton, Catalan, Danish, Dutch, English, Faroese, Finnish, French, Gaelic, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Spanish and Swedish

Turkish: Albanian, Danish, Dutch, English, Finnish, French, Gaelic, German, Italian, Kurdish (Latin), Norwegian, Portuguese, Spanish, Swedish and Turkish

Central European: Albanian, Croat, Czech, Dutch, English, German, Hungarian, Irish, Polish, Romanian, Slovak, Slovene and Serbian

Cyrillic: Bulgarian, Belorussian, English, Macedonian, Moldavian, Russian, Serbian and Ukrainian

Greek: English and modern Greek

Hebrew: English and modern Hebrew

Arabic: Arabic
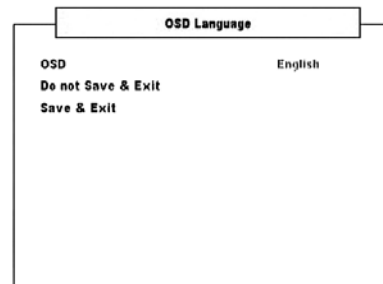
Baltic: Baltic

Vietnam: Vietnamese

Unicode: Default subtitle.

DIVX REGISTRATION

The Registration code details necessary for VOD (Video-On- Demand) service can be shown by pressing [ENTER] while at "DivX Registration" menu option.

OSD LANGUAGE

OSD (ON-SCREEN DISPLAY)

The OSD of VISO TWO can be shown in eight different language versions – English, French, German, Dutch, Spanish, Italian, Russian and Swedish. Select the language setting you prefer.

ABOUT THE VISO TWO INTERNAL DVD PLAYER

The VISO TWO has exceptional playability. It has support for DVD-Video, DVD-R/-RW/+R/+RW, DVD-A, SVCD with or without PBC (Play Back Control), VCD, DivX, Audio CD, CD-R/-RW and including recorded MP3, copyright-protected WMA and JPEG files.

NOTE

You cannot playback discs other than those listed above such as CD-ROM, CD-Extra, CD-G, photo-CD, and CD-i data discs. To do so may render the VISO TWO permanently inoperable.

REGION MANAGEMENT INFORMATION

The VISO TWO's internal DVD Player is designed and manufactured to respond to the Region Management Information that is recorded on a DVD disc. If the Region number described on the DVD disc does not correspond to the Region number shown on the back of the VISO TWO, the internal DVD player cannot play that disc. The VFD will display "REG Err" ("Wrong Region" in the OSD) when an incompatible region disc is loaded.

DISC LOADING AND PLAYBACK

You can open the disc tray by pressing [OPEN/CLOSE] button even if the VISO TWO is in standby mode. The power indicator will turn from amber to blue. Place a disc on the disc tray with the playback side down.

There are two different disc sizes. Place the disc in the correct guide on the disc tray. If the disc is out of the guide, it may damage the disc and cause the VISO TWO to malfunction. "DISC Err" appears on both the VISO TWO's display and the TV/monitor screen, if the disc is placed upside down (and it is a single sided disc).

The following are important tips when loading a disc
- Do not push the disc tray while it is moving. Doing so may cause the VISO TWO to malfunction
- Do not push up the disc tray or put any objects other than discs on the disc tray. Doing so may cause the VISO TWO to malfunction.
- Keep your fingers well clear of the disc tray as it is closing. Be especially careful with children's fingers around the closing disc tray, as there is a risk of personal injury.

Press [PLAY/PAUSE], the disc tray is automatically closed and playback begins. Press the HTR 6's navigation buttons and then press [ENTER] or press the numeric button(s) to select the desired track (CD). Play of the selected item now begins (Depending on the DVD disc or other disc media, some operations may be different or restricted. Refer to the jacket or case of the disc you are playing).

Press the HTR 6's [STOP] key twice during playback to display an audio CD's total number of tracks and total playback time in the VFD.

After playing back all of the chapters in the title, VISO TWO's DVD player automatically stops and returns to the menu screen.

NOTES

- *Do not move the VISO TWO during playback. Doing so may damage the disc and the VISO TWO.*
- *The HTR 6 control keys [⏏], [❙❙], [■], [⏮/⏭/◀◀/▶▶] and [▶] are not punch-through function keys. To use them for disc playback purposes, make sure that HTR 6's DEVICE SELECTOR is set to "DVD".*

Depending on the media, the following are other basic features of the VISO TWO's internal DVD player. Make sure that you select "DVD" at the Device Selector selection of the HTR 6 before you proceed with the specific function.

TITLE AND MENU BUTTONS
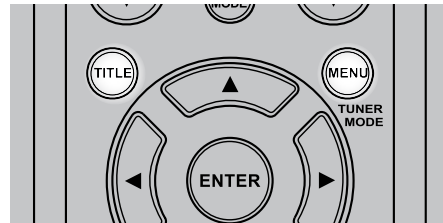
Both these buttons are only found on the HTR 6. The [TITLE] and [MENU] buttons are used to display via OSD, the title headings and menus of the DVD and other applicable media. Some movie discs may contain two or more titles. If the disc has a title menu recorded on it, the [TITLE] button can be used to select the movie title. (The details of operation differ depending on the disc used.)

Press [TITLE] and a list of the titles on the disc are displayed. Depending on the disc, pressing [TITLE] again will resume play from the scene when [TITLE] was first pressed.

Press [ENTER], [PLAY] or the numeric button(s) to select desired title; the selected title now starts playing.

Some DVDs have unique menu structures called DVD menus. For example, DVDs programmed with complex contents provide guide menus, and those recorded with various languages provide menus for audio and subtitle language.

Press [MENU] during play; the DVD menu available on the disc is now displayed. Pressing [MENU] again resumes play from the scene when MENU was first pressed.

RANDOM
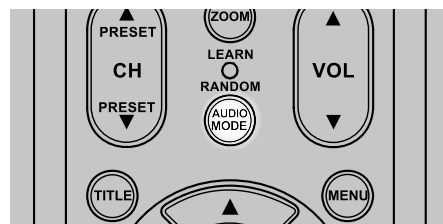
Press the HTR 6's RANDOM key during playback and "Random" briefly appears on the upper line of the VFD. "Ran" will then be displayed in VFD alongside the track number and playback time. Press [⏮/⏭] for random playback of audio tracks. Press RANDOM again to return to normal playback.

For iPod songs, "Ran Song" or "Ran Album" will be displayed in the VFD as applicable. "Ran Song" allows random playback of songs within an album or playlist. On the other hand, "Ran Album" randomly plays all the songs in an album. Afterwards, another album is randomly selected and also randomly plays all the songs in this album.

OPERATION

USING VISO TWO – FEATURES

REPEAT
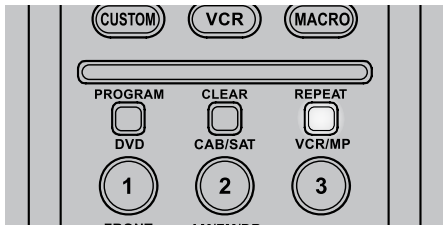
To repeat the playback of a particular track, file or chapter, press the VISO TWO's [REPEAT] key once. Pressing the same [REPEAT] key a second time will repeat all the tracks, files or title. Turn off repeat mode by pressing REPEAT button a third time.

Depending on your desired repeat mode, the following are shown or highlighted in the VFD alongside the playback time display:
Rpt – Repeat track, file or song
RpA – Repeat all tracks, files or songs in an album or playlist
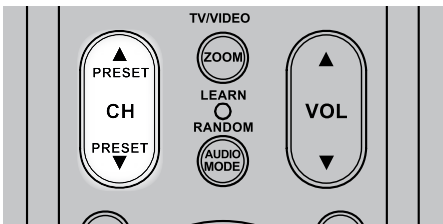Rpf – Repeat MP3/WMA/JPEG folder
Blinking "T" – Repeat DVD title
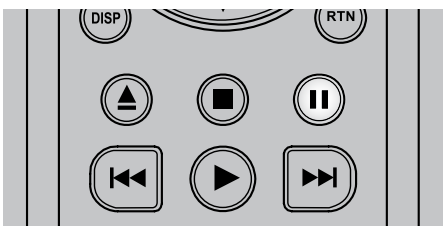Blinking "C" – Repeat DVD chapter
Blinking "G" – Repeat DVD-Audio group

SLOW

Press [SLOW ▲/▼] during playback. The player will enter SLOW mode. Repeatedly press [SLOW ▲/▼] to select the desired speed. To exit Slow Motion mode, press [PLAY].

STILL PICTURE AND FRAME-BY-FRAME PLAYBACK

Press [❙❙] (PAUSE) on the remote control or [PLAY/PAUSE] on the front panel during playback. Advance the picture frame-by-frame by pressing [❙❙] on the HTR 6 repeatedly. To exit still motion mode, press [▶] (PLAY).

ZOOM
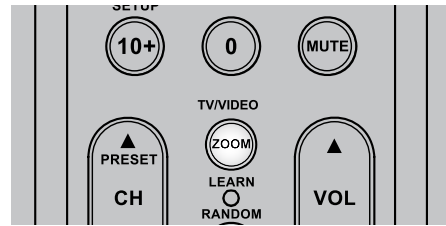
Use [ZOOM] to enlarge the video image. Press [ZOOM] during playback or still playback to activate the Zoom function. Depending on the media, each press of the ZOOM button changes the TV screen in the following sequence: ZOOM X 1, ZOOM X 2, and ZOOM X 3. Use the HTR 6 [▲/▼/◄/►] keys to move through the zoomed picture. To resume normal playback, press ZOOM repeatedly until "ZOOM OFF".

NOTE

Zoom may not work on some DVDs.

PROGRAMMING
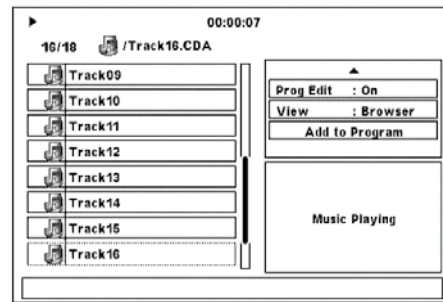
The program function enables you to store your favorite tracks in the player memory. When programming a sequence of tracks, the VISO TWO must be in stop mode. A program can contain up to 30 tracks. To program the sequence

1 Insert a disc.
   Audio CD or MP3/WMA discs: CD or MP3/WMA menu appears.
2 Use [►] to go to "View Filter" - right pane of the menu screen.
3 Use [▼] to scroll down to "Prog Edit: Off". Press [ENTER] to change setting to "Prog Edit: On". Press [▼] to check if you are at "View: Browser" mode – if set to "View: Program" mode, press [ENTER] to switch to "View: Browser" mode.
4 Press [◄] to go to the track selection on the left pane of the menu screen. Select the track/file you want to add in your program list and then press [ENTER] – a " ✓ " mark will appear to the left of the selected track.
5 Press [►] to go back to the right pane of the menu screen. Use [▼] to scroll down to "Add to Program"; press [ENTER] to add the selected track in your program list.
6 Repeat steps 4 and 5 to place additional tracks/files on the list.
7 Set "Prog Edit: On" to "Prog Edit: Off" in order to complete the programming procedure - use [▲/▼] to scroll to "Prog Edit: On" and then, press [ENTER] to change the setting to "Prog Edit: Off".

NOTE

Program mode can also be switched to "Prog Edit: Off" or "Prog Edit: On" by pressing the [PROGRAM] key of the HTR 6 remote control. Ensure that the "DEVICE SELECTOR" setting of your HTR 6 is set to "DVD".

PROGRAM PLAYBACK

To begin playback, make sure that you are at "View: Program" mode as set up from the "View Filter" section. Press [►] (Play) to start program playback. "Prg" will be displayed in the VFD alongside the track number during program playback mode.

ERASING A TRACK FROM PROGRAM LIST

To erase a track from the program list, make sure that you are at "View: Program" and "Prog Edit: On" as set up from the "View Filter" section.

1 Press [◄] to go to the left pane of the menu screen.

2 Select the track you wish to erase from the program list. Press [ENTER].

3 Press [►] to go to the right pane of the menu screen. Use [▼] to scroll down to "Clear Program". Press [ENTER] – the selected programmed track is deleted.

NOTES

*   *Instead of selecting "Clear Program", a programmed track can also be directly deleted by pressing the [CLEAR] key of the HTR 6 remote control. Ensure that the "DEVICE SELECTOR" setting of your HTR 6 is set to "DVD".*

*   *To delete more than one or all programmed tracks, select the tracks one by one by pressing [ENTER] each time. All tracks with " ✓ " mark will be deleted when [CLEAR] button is pressed (or "Clear Program" is selected).*

RESUME NORMAL PLAYBACK

Make sure that you are at "View: Browser" as set up from the "View Filter" section. Press [◄] to go to the left pane of the menu screen. Press [ENTER] or [►] (Play) to resume normal playback.

PLAYING MP3/WMA/JPEG

The VISO TWO can play MP3/WMA formatted recordings on CD-R, or CD-RW discs as well as view discs with JPEG files. You may mix any of the file types on the disc.

Load the applicable disc. The OSD will display the folders or files as a list. Use the HTR 6's [▲/▼/◄/►] keys to navigate through the folders or files. You must be at stop mode to access folders on the left side of the menu window.

Press [ENTER] or [PLAY] to start playback. For each file type being played, the file number is preceded by M", "W" or "J" to indicate the file being played is a MP3, WMA or JPEG file.

ROTATE PICTURE

Press [▲/▼/◄/►] keys during the showing of a picture to rotate the picture 90°, 180°, 270° and back to "No rotation" (original normal position).

TIMER SETUP

The following are the steps on how to setup the internal clock of the VISO TWO, setup the time you wish the VISO TWO to be switched ON from standby mode (ON TIME) or go to standby mode OFF (OFF TIME).

1 Press and hold the front panel [TIMER ON/OFF] button for more than 4 seconds. "TIME" is displayed in the VFD along with the current clock settings – the "hour" value is blinking.

2 Use the [PRESET ◄◄ / ►►|] buttons to change the "hour" setting.

3 Press [MEMORY] button to move on to "minute" setting – the "minute" value is blinking. Use the [PRESET ◄◄ / ►►|] buttons to change the "minute" setting.

4 Press [MEMORY] button to move on to "ON TIME" setting. Follow steps 2 and 3 above to setup your preferred ON TIME "hour" and "minute" settings.

5 Press [MEMORY] button to complete your "ON TIME" settings. "ON TIME YES" will be displayed in the VFD. Use [PRESET ◄◄ / ►►|] buttons to toggle between "ON TIME YES" and "ON TIME NO".

6 Press [MEMORY] button to select either "ON TIME YES" to enable the "ON TIME" settings you have set up or "ON TIME NO" if you do not want to enable your "ON TIME" settings.

7 "OFF TIME" is also setup the same way as that of "ON TIME".

TIMER INDICATOR SETTINGS

If you have selected "ON TIME YES" and/or "OFF TIME YES", a corresponding color indicator will be illuminated in the upper left portion of the VFD – GREEN indicates "ON TIME" setting is enabled; RED indicates that "OFF TIME" setting is enabled. To directly turn off the enabled timer setting(s), toggle TIMER ON/OFF button – the applicable color indicator is extinguished. Toggle TIMER ON/OFF button again to enable your timer settings – the corresponding color indicator is illuminated again.

AUTOMATIC POWER OFF FUNCTION

When at DVD mode, the VISO TWO will automatically shut down and go to standby mode if it is left at "NO DISC" status for 8 minutes.

OPERATION

USING THE VISO TWO - AM/FM/DB/iPod

LISTENING TO AM/FM RADIO

The VISO TWO's internal AM/FM tuner offers very high quality sound from radio broadcasts. The reception and sound quality will always be dependent to a degree however on the type of antenna(s) used as well as proximity to the broadcast origin, geography and weather conditions.

ABOUT ANTENNAS

The supplied ribbon-wire FM antenna can be connected to the rear-panel FM-antenna input using the included 'balun' adapter and should be fully extended to form a "T". This folded-dipole antenna will usually work best when oriented vertically, with the arms of its "T" fully outstretched and arranged perpendicular to the origin of the desired broadcast. There are no 'rules,' however, and experimenting freely with antenna placement and orientation may yield the clearest sound and lowest background noise.

In areas of poor FM reception, an exterior FM antenna can improve performance dramatically. If radio listening is important to you, consider consulting an antenna installation professional to optimize your system.

The supplied AM 'loop' antenna will usually provide adequate reception. However, an exterior AM antenna can be used to improve reception. Consult an antenna professional for more information.

ASSEMBLING THE LOOP ANTENNA

1   Rotate the outer frame of the antenna.
2   Insert the bottom edge of the outer frame into the groove on the stand.
3   Extend the antenna cord.

SELECTING THE RADIO

To select the VISO TWO's tuner mode, rotate "INPUT SELECTOR" knob on the front panel repeatedly until AM/FM mode or the HTR 6's numeric '5' while at AMP device selector page.

Press [TUNE ◄◄ / ►►] on the front panel momentarily to step up or down AM or FM frequencies.

Press and hold [TUNE ◄◄ / ►►] for more than 2 seconds to search up or down AM or FM frequencies - the VISO TWO's tuner will stop at the next sufficiently strong signal it encounters. Pressing the [TUNE ◄◄ / ►►] during the search process will stop the search.

DIRECT TUNING

If you know your desired station's frequency allocation, you can tune directly to the station.
1   Toggle [ENTER] button to switch between "Preset" and "Tune" mode (see the lower line of the VFD). Select "Tune" mode.
2   Using the numeric keys of the remote control, key-in the frequency allocation of the station. For example, to enter 104.50MHz, press "1", "0", "4", "5" and "0" or press ""1", "0", "4" and "5".

NOTE

Ensure that the "DEVICE SELECTOR" setting of your HTR 6 is set to "TUNER".

SETTING RADIO PRESET

The VISO TWO can store as many as 60 (30 FM and 30 AM stations) of your favorite radio stations for immediate recall.
1   To store a radio preset, first tune the desired frequency (see above), then press the front panel [MEMORY] button. The VFD will show a blinking "MEMORY" icon and the next available vacant Preset number.
2   Press [MEMORY] button again to store the desired frequency on the Preset number shown or use the [I◄◄ / ►►I] keys to select another available Preset number.
3   Then, press [MEMORY] key button again. Your desired frequency is now stored in the assigned presets.

The Radio Presets must be stored from the front panel. This setup function is not accessible from the HTR 6 remote control.

Use the [I◄◄ / ►►I] keys on the front panel to step up or down between presets. Press and hold [I◄◄ / ►►I] to "scroll" continuously up or down. The HTR 6 remote's [PRESET] keys work similarly. Empty presets will be skipped during preset tuning.

DIRECT RECALL OF A PRESET

You can directly recall a desired Preset number.
1   Toggle [ENTER] button to switch between "Preset" and "Tune" mode (see the lower line of the VFD). Select "Preset" mode.
2   Using the numeric keys of the remote control, directly key-in your desired Preset number. For example, to enter Preset 5, press "5".

NOTE

Ensure that the "DEVICE SELECTOR" setting of your HTR 6 is set to "TUNER".

AUTOMATIC PRESET

Preset stations may also be programmed automatically for the entire FM (or AM) band.
1   Toggle the [AM/FM/DB] button to select FM (or AM) band.
2   Press and hold the [MEMORY} button until the station frequency indication begins to increase.
3   Release the button and note that the tuner will search the entire FM (or AM) band, and stop briefly at each station that has acceptable signal strength. The VISO TWO will automatically assign a preset number to each station, and then search for the next station. Up to 30 of the best received FM stations (or AM stations) will be automatically stored.

DELETING A STORED PRESET

You can empty a preset by deleting the stored information.
1   Select the preset number to be entered.
2   First press the [DISPLAY] button and hold it in. While holding in the [DISPLAY] button, press the [MEMORY] button for about half a second, then release the [MEMORY] button.
3   The preset will then be deleted and "DELETED" scrolls on the display.
4   To clear all the presets at the same time, repeat step 2 again but this time do not release the [MEMORY] button. Hold down both buttons until the current preset number shown in the VFD is extinguished. All presets are now deleted.

CHOOSING TUNER MODE

The front-panel [TUNER MODE] key is a dual-purpose control. In the normal position, "FM STEREO" and "FM MUTE" icons on the VFD are lit; only the stations with a strong signal can be listened to, and the noise between stations is muted. Pressing the [TUNER MODE] button again ("FM STEREO" and "FM MUTE" icons on the VFD are extinguished) allows distant and potentially noisy stations to be received. Noise is reduced if the FM station signal level is less than the FM Stereo threshold (since mono FM is inherently less noise-prone) though at the sacrifice of the stereo effect.

NOTE

In FM/XM/DAB mode, [MENU] button functions the same way as the [TUNER MODE] button.

ABOUT USER NAMES

You can assign an eight character "User Name" to each radio preset, which will show in the front-panel readout whenever that preset is recalled.

ENTERING USER NAMES

To name a radio preset "NEWS", follow the procedure as below (The buttons mentioned apply to the front panel's buttons).

1 Recall the desired radio preset.
2 Press and hold the [DISPLAY] button and then within five (5) seconds, use the [PRESET ◄◄ / ►►|] buttons to select the first character of the name ("N" from the alphabetical list).
3 Press [TUNE ►►] button to select the character and correspondingly move forward to the next position. (Press [TUNE ◄◄] to go back to the previous character). Repeat this process for each character in sequence.
4 Press the [MEMORY] key to store the User Name and exit the text-entry mode.

ABOUT RDS

The Radio Data System (RDS) permits compatible tuners to display text determined by the broadcaster. The VISO TWO supports two RDS modes, station-name (PS mode) and radio-text (RT mode). However, not every FM station incorporates RDS in its broadcast signal. In most areas you will find from one to several RDS-enabled stations, but it is by no means impossible that your favorite stations will not be broadcasting RDS data.

VIEWING RDS TEXT

When an RDS-enabled FM broadcast is tuned, after a brief delay the "RDS" icon will light in the VISO TWO's front panel readout and the readout's character section will show its station-name (PS) text: "ROCK101," for example.

Press the front panel [DISPLAY] key to toggle the readout between this and the station's radio-text (RT) readout, if any, which might scroll song- or artist-name or any other text of the station's choosing.

ABOUT DAB RADIO

Until now, analogue radio signals such as FM or AM have been subject to numerous kinds of interference on their way from the transmitter to your radio. These problems were caused by mountains, high-rise buildings and weather conditions. With Digital Audio Broadcast (DAB), you can now receive CD-like quality radio programs without any annoying interference and signal distortion. DAB broadcasts use digital signals rather than traditional analogue transmissions, thus providing clear high quality reception. You get far more robust reception and virtually hiss or crackle free sound with DAB as long as you are within a good coverage area.

With DAB, the listener can scroll through a list of available stations - then instantly tune to the station of his choice. There is no need either to remember channel frequencies. All broadcasts are selected by simply selecting the service name.
The VISO TWO makes it possible for you to enjoy listening to DAB broadcasts. The VISO TWO has a Digital Audio Broadcast (DAB) module socket on the rear panel for adding a separately sold and NAD-specified outboard DAB module – the NAD DAB Adaptor DB 1. All the control software for this format is included; just plug-in the module and start enjoying the CD-like quality sound and expansive content selection available with DAB.

CONNECTING THE DAB MODULE

Plug-in the other end of the DIN connector (supplied with your NAD DAB Adaptor DB 1) from the DAB module's output port into the corresponding DAB module input socket on the rear panel of the VISO TWO. Select DAB mode on the VISO TWO by toggling the [AM/FM/DB] button in the front panel.

NOTES
• *Please refer to NAD DAB Adaptor DB 1 installation guide for proper setup connection of the DB1 with respect to the VISO TWO.*
• *The front panel [TUNER MODE] and [MENU] buttons function the same way at DAB mode. The [MENU/TUNER MODE] key of HTR 6 is the equivalent button for both functions.*
• *If there is no NAD DAB Adaptor DB 1 connected at the corresponding DAB input terminal at the rear panel, the VFD will show "CHECK DAB TUNER".*

OPERATION

USING THE VISO TWO - AM/FM/DB/iPod

DAB OPERATION

With the separately sold NAD DAB Adaptor DB1 already connected to the VISO TWO, you can now carry out the VISO TWO to receive DAB broadcasts.

1   Toggle [AM/FM/DB] button until DAB mode. When DAB mode is selected, VFD will show "DAB initialize – Please wait" and then go to "Full Scan" mode. FULL SCAN will enable the scanning of the full range of digital frequencies (Band III and L-Band). This sequence cannot be interrupted.

    The arrows show the progress of the sequence. When scanning is completed, the last number shown on the upper right side of the VFD corresponds to the total number of DAB broadcast stations found. Then, the first station is tuned in (See "ALPHANUMERIC" description below to understand the order or arrangement of stations).

2   The strength of the incoming signal can be shown on the VFD by pressing the [ENTER] button. The more "o" segments visible in the lower display line, the stronger the signal. By changing the position of the antenna, you can increase the signal strength. Consult an antenna professional for more information.

NOTES

•   *"No stations Available" will be shown in the VFD when no DAB stations are found after the scanning process. If this occurs, check the connection and position of the DAB antenna or call your local DAB broadcast providers for coverage information.*

•   *When using HTR 6 buttons to navigate DAB options, ensure that the "DEVICE SELECTOR" setting of your HTR 6 is set to "TUNER".*

SERVICE LIST

Follow the steps below to select through the DAB service stations found.

1   At DAB mode, press [TUNE ◄◄/►►] to step through the list of available stations as shown in the lower display line of the VFD.

2   Press [ENTER] to select the desired station.

DAB TUNER MODE

Aside from "Full Scan" as already described above, pressing the [MENU] button will also present you with other options namely - Local Scan, Preset Tune, Station Order, Tune Aid, Dynamic Range and Prune List

LOCAL SCAN

LOCAL SCAN performs local scanning of available DAB services in your area. Check with your dealer or visit www.WorldDAB.org to check the applicable digital transmission frequencies in your area.

1   While listening to a DAB broadcast, press front panel's [MENU] button and then [TUNE ◄◄/►►] to select "Local scan". Press [ENTER].

2   Local scan of available DAB services in your area will start. The arrows show the progress of the sequence. When scanning is completed, the last number shown on the right side of the VFD corresponds to the total number of DAB broadcast stations found. Then, the first station is tuned in.

PRESET TUNE

Use this option to select a DAB preset station.

1   While listening to a DAB broadcast, press front panel's [MENU] button and then [TUNE ◄◄/►►] to select "Preset tune". Press [ENTER].

2   Press [TUNE ◄◄/►►] to step up or down between presets. Note that Presets must have been previously stored.

3   Press [ENTER] to select desired preset number.

SETTING DAB PRESETS

The VISO TWO can store as many as 99 DAB stations of your favorite DAB broadcast for immediate recall.

1   To store a DAB preset, first tune the DAB broadcast, and then press the front panel [MEMORY] button. The VFD will show a "Preset Memory" and the next available vacant Preset number (the number is blinking).

2   Press [MEMORY] button again to store the desired DAB broadcast on the Preset number shown or use the [TUNE ◄◄/►►] keys to select another available Preset number.

3   Then, press [MEMORY] key button again. Your desired DAB broadcast is now stored in the assigned presets.

STATION ORDER

Use "Station order" to sort the sequence of the listed stations. There are four orders – Alphanumeric, Active, Ensemble and Favourite.

1   While listening to a DAB broadcast, press front panel's [MENU] button and then [TUNE ◄◄/►►] to select "Station Order". Press [ENTER].

2   Toggle [TUNE ◄◄/►►] to select through "Alphanumeric", "Active", "Ensemble" and "Favourite".

3   Press [ENTER] to select desired station order.

ALPHANUMERIC

This is the default setting. Stations are arranged by numbers first and then alphabetically by letters.

ACTIVE

Active stations are listed at the top of the channel list. Those channels that are in list but have no service in the area will be displayed last in the channel list.

ENSEMBLE

Digital radio is broadcast as groups of data called ensemble. Each ensemble contains a number of stations, transmitted at a set frequency. When "Ensemble" is selected as the mode of station order, the radio stations are arranged in the order of their ensemble names.

NOTE

Ensemble is also interchangeably termed as "multiplex" by other broadcast providers.

FAVOURITE

The VISO TWO memorizes the top ten stations you listen as you tune in stations. They will be listed at the top of the channel list.

DYNAMIC RANGE

The level of compression of stations can be set to eliminate the differences in dynamic range or sound level between radio stations. Popular music would normally be more compressed than classical music, resulting in possible different audio levels when changing from one station to the other. Setting the Dynamic Range to "D-Range 0" means no compression, "D-Range 1/2" indicates medium compression and "D-Range 1" shows maximum compression. No compression is recommended, especially for classical music.

1   While listening to a DAB broadcast, press front panel's [MENU] button and then [TUNE ◄◄/►►] to select "Dynamic range". Press [ENTER].

2   Toggle [TUNE ◄◄/►►] to select through "D-Range 0", "D-Range ½" and "D-Range 1". The upper line display shows the current dynamic range setting while the lower line display will show the choices for the dynamic range values.

3   Press [ENTER] to select desired Dynamic Range level.

TUNE AID

This option allows you to directly tune to a desired channel and include it in the service list (if not yet available at the time). You can also use TUNE AID to assist you in positioning the DAB antenna for best reception of the desired channel.

1   While listening to a DAB broadcast, press front panel's [MENU] button and then [TUNE ◄◄/►►] to select "Tune aid". Press [ENTER]. The current channel and frequency are shown in the lower line of the VFD. The number of "o" displays at the upper line of the VFD indicates the signal strength level of the current channel.

2   To select other channels, toggle [TUNE ◄◄/►►] to step through the channel list. Release [TUNE ◄◄/►►] when you have arrived at your desired channel. To improve the reception of the selected channel, adjust or reposition the DAB antenna until the best reception is indicated.

3   Press [ENTER] to tune the selected channel.

NOTE

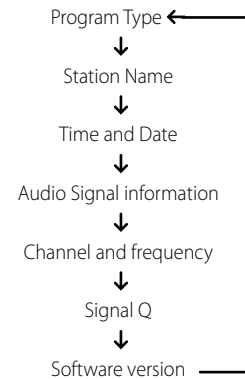*The number of ensembles and stations that could be scanned will vary depending on your location.*

PRUNE LIST

There maybe situations wherein certain stations become inactive. The "Prune List" option enables the deletion of these inactive stations in the service list.

1   While listening to a DAB broadcast, press front panel's [MENU] button and then [TUNE ◄◄/►►] to select "Prune List".

2   Press [ENTER]. Use [TUNE ◄◄/►►] and then press [ENTER] to select between "Cancel" or "OK? [SELECT]". Any inactive stations (normally stations preceded by a "?" mark) are automatically deleted when "OK? [SELECT]" is selected. Otherwise, select "Cancel".

INFORMATION SETTINGS

While listening to a DAB broadcast, the type of information displayed in the lower line of the VFD can be varied. Toggle front panel's [DISPLAY] button to step through the following display options:

Program Type
↓
Station Name
↓
Time and Date
↓
Audio Signal information
↓
Channel and frequency
↓
Signal Q
↓
Software version

PROGRAM TYPE

This is a description of the type of broadcast supplied by the station, such as Pop, Rock, Drama and the likes.

STATION NAME

The name or identification of the DAB broadcast station is shown.

TIME AND DATE

The current time and date as supplied by the DAB station are displayed.

AUDIO SIGNAL INFORMATION

Displays the bit rate and audio type (stereo, mono or joint stereo) as transmitted by the DAB broadcast provider. These are set by the broadcaster to suit the type and quality of material being transmitted.

CHANNEL AND FREQUENCY

The channel and frequency of the currently tuned DAB broadcast are displayed.

SIGNAL QUALITY

This displays the digital error rate (0 to 99) of the currently tuned channel - the lower the figure, the better the quality of the received broadcast.

SOFTWARE VERSION

Show the version number of the installed software.

OPERATION

USING THE VISO TWO - AM/FM/DB/iPod

ABOUT XM RADIO

The VISO TWO is "XM Ready" which means that with the addition of separately sold XM Mini-Tuner CPC-9000 and XM Mini-Tuner Home Dock, it has everything you need to listen to live XM. Everything else is built right in. Just subscribe to the XM service and your VISO TWO will be ready to receive XM content.

NOTES

- Questions? Visit www.xmradio.com
  Listeners can subscribe by visiting XM on the Web at www.xmradio.com or by calling (at the time of printing this manual) XM's Listener Care at (800) 853 9696. Be ready with your Radio ID that can be found on the radio by selecting Channel 0.
- Check with your NAD audio specialist for other versions of XM Mini-Tuner compatible with VISO TWO.

CONNECTING THE XM ANTENNA

Plug the end of the XM antenna into the corresponding XM antenna port on the rear panel of the VISO TWO. Press and hold [DISPLAY] button on the front panel to check the current XM channel's signal strength as shown in the VFD. Press and hold [DISPLAY] again to exit signal strength check.

NOTES

- Refer also to your XM radio's guide on how to install the XM antenna for optimum signal reception.
- The front panel [TUNER MODE] and [MENU] buttons function the same way at XM mode. The [MENU/TUNER MODE] key of HTR 6 is the equivalent button for both functions.
- When using these HTR 6 buttons to navigate XM menu options, ensure that the "DEVICE SELECTOR" setting of your HTR 6 is set to "TUNER".
- If there is no XM tuner connected at the corresponding XM input terminal at the rear panel, the VFD will show "CHECK XM TUNER".

TUNING STATIONS

There are three ways to tune to the XM channel you wish to listen. Make sure to set your HTR 6's "DEVICE SELECTOR" to "TUNER" prior to undertaking the following tuning options.

1. **ALL CH SEARCH (All Channel Search):** Toggle front panel's [MENU] button to select "ALL CH SEARCH". Use the front panel or HTR 6's [◄/►] [or TUNE ◄◄/◄◄/►►I/►►] buttons to step up or down each available XM channel. Press and hold [◄/►] for faster scanning of XM channels.

2. **CATEGORY SEARCH:** The XM channels are grouped into categories for easier selection of desired genre.
   a. Toggle front panel's [MENU] button to select "CATEGORY SEARCH". "CAT^XM" and a corresponding category is displayed in the VFD. "CAT^XM" stands for categories the channels are grouped into – i.e., Country, Rock, Jazz & Blues, etc.
   b. Use HTR 6's [▲/▼] (or front panel's [PRESET ◄◄/►►I]) buttons to step up or down the available categories.
   c. Press HTR 6's [◄/►] (or front panel's [TUNE ◄◄/►►]) buttons to select through the available XM channels within the selected category. You can also use HTR 6's [TUNE ◄◄/◄◄/►►I/►►] buttons. Tuning will only be limited to within the selected category.
   d. Repeat "b" above to choose another category.

3. **PRESET SEARCH:** Toggle front panel's [MENU] button to select "PRESET SEARCH". At this menu option, a stored preset can be directly recalled by entering the preset number using the HTR 6's numeric buttons.

DIRECT CHANNEL CALL

While at either "CATEGORY SEARCH" or "ALL CH SEARCH" mode, a desired XM channel can be directly tuned in by using the HTR 6's numeric buttons. To key-in XM channels that are less the 3 digits, press "0" in place of the digit or press [ENTER] after entering the XM channel number. For example, to enter XM channel 8, press "0", "0" and "8" or press "8" then [ENTER].

VIEW XM INFORMATION

Toggle [DISPLAY] button to display the XM information of the selected channel such as the XM channel category, XM station name, artist name, song title or any other text as supplied for the channel.

SETTING XM PRESETS

The procedure for storing XM channels is the same method as stated in the section "SETTING RADIO PRESETS" under "LISTENING TO AM/FM RADIO". You can store up to 30 XM channels.

For immediate recall of stored XM presets, press the front panel's [PRESET ◄◄/►►I] button or HTR 6's [PRESET ▲/▼] keys to step up or down the stored XM channel presets.

ABOUT THE iPod INPUT FEATURE

The VISO TWO is equipped with a data port in the rear panel where an optional "NAD IPD 1 Dock with iPod" (NAD IPD 1) can be plugged in. With the NAD IPD 1 linking the VISO TWO with your own iPod player, you can enjoy listening to your favorite tracks and playlists, as well as view applicable still image and video playback.

You can control your iPod player using the assigned buttons in the VISO TWO front panel. And with the corresponding HTR 6 remote control function keys, you can select the materials stored in your iPod for playback as well as access many of its functions even from across the room. The optional NAD IPD 1 also charges your iPod player while it is connected to the VISO TWO.

NOTES

- NAD IPD 1 and iPod player are optional and not supplied with your VISO TWO.
- iPod player functions, features and playback capabilities accessible through VISO TWO may vary depending on your iPod player model.
- When using the HTR 6 to control the iPod functions, make sure that the Device Selector is set to "MP DOCK".

CONNECTING THE OPTIONAL "NAD IPD 1 DOCK WITH iPod" AND iPod PLAYER TO THE VISO TWO

Make sure that all the devices are unplugged before making the connections.
1. Connect the NAD IPD 1's plug into the VISO TWO's "MP DOCK" data port.
2. Connect also the NAD IPD 1's S-video and audio out to the VISO TWO VCR input (the default iPod source allocation in the VISO TWO).
3. Dock your iPod player into the NAD IPD 1.
4. After linking together your iPod player, NAD IPD 1 and the VISO TWO, you can now plug them IN to their applicable power sources.
5. With your iPod player, NAD IPD 1 and VISO TWO all at power ON state, rotate INPUT SELECTOR knob to select "iPod" source. The upper line of the VFD will show "iPod".

NOTE

When the iPod player is removed from NAD IPD 1, the lower line of the VFD will briefly show "Disconnected". Dock your iPod player into the NAD IPD 1 and the lower line will briefly show "Connected".

iPod MENU OPTIONS

There are two menu options for iPod – Menu mode and Simple mode. At "Menu mode", iPod navigation will be done and guided through the VFD of the VISO TWO. At "Simple mode" everything will be guided through your iPod's own display screen as you would do in normal iPod use.

"Menu mode" is the default menu option. The following is the procedure to switch between "Menu mode" and "Simple mode" options

1 Press and hold front panel's [MENU] button (or [MENU/TUNER MODE] key of HTR 6) for about 3 seconds and then release the button.
2 "Menu mode" or "Simple mode" will appear. You are at "Menu mode" if the lower line of the VFD briefly shows "Connected" and then switches to display the elapsed time and remaining playback time of the current song. You are at "Simple mode" if the lower line of the VFD shows the current listening mode, i.e. PLII Music. Select your preference by releasing the button when the mode you desire appears.

MENU MODE

At "Menu mode", there are several menu options available that are similar to what you can find in an iPod player. During playback, press [MENU] and you will be directed to the "Playlists" option of the "Menu mode". Use the HTR 6's [▲/▼] (or front panel's [PRESET I◄◄ / ►►I] buttons) to select through other "Menu mode" options like Artists, Albums, Songs, Podcasts, Genres, Composers and Audiobook. Using the corresponding front panel or HTR 6 buttons, navigate and select through these VFD "Menu mode" options as you would when operating your iPod player independently.

NOTE

At "Menu mode", your docked iPod player's click wheel and controls will not be operational. Your iPod player will show in its display the NAD logo. Use the corresponding front panel or HTR 6 buttons to navigate through the "Menu mode" options.

SIMPLE MODE

At "Simple mode", refer to your docked iPod player's own display screen to navigate and make full use of its features. Use your docked iPod's own click wheel and controls or the corresponding front panel or HTR 6 buttons to select through the available options as displayed in your iPod player's display screen.

CONTROL FEATURES

Use the following control buttons in navigating through the iPod menu options. These are applicable using either the front panel or HTR 6 buttons. Since the HTR 6 will be the primary controller in most cases, we will focus on remote-controlled operations.

DISP

During playback, toggle [DISP] key of HTR 6 to show in the VFD lower line the following
• Elapsed time and remaining playback time of the current song
• Song title
• Artist Name
• Album title

If there is no information available, the display will show "ARTIST: Unknown Artist" or "ALBUM: Unknown Album" as applicable.

The equivalent front panel key for [DISP] is [DISPLAY].

MENU

Press [MENU] to return to a previous option or menu selection.

[▲/▼] NAVIGATION BUTTONS

While at menu options or selection lists, toggle [▲/▼] to go up or down the options, lists or song titles. Press and hold [▲/▼] to quickly scroll through the song titles. The equivalent front panel key for [▲/▼] is [PRESET I◄◄ / ►►I].

ENTER

Press [ENTER] to select an option or start playback when applicable.

TUNE [I◄◄ ◄◄ / ►► ►►I]

During playback or PAUSE mode, press and hold [TUNE I◄◄ ◄◄ / ►► ►►I] for fast forward or backward scanning of current song.
Press [TUNE ►► ►►I] to skip forward to the next song or [TUNE I◄◄ ◄◄] to skip back to the previous song. The equivalent front panel key for [TUNE I◄◄ ◄◄ / ►► ►►I] is [SCAN ◄◄ / ►►].

PAUSE [II] / PLAY [►]

Press PAUSE [II] during playback to stop playback temporarily. Resume play by pressing PAUSE [II] again or PLAY [►].

NOTE

For other navigation functions, please refer to your iPod player's owner's manual. Depending on the iPod player model, some other functions maybe controlled using the applicable VISO TWO navigation controls.

TO VIEW VIDEOS OR PHOTOS LOADED IN YOUR iPod

Videos or photos uploaded in your iPod can be viewed directly via the VISO TWO. The following are the steps
1 Make sure that the "TV Out" setting of your iPod's Video or Photo Settings menu is at "On" mode and appropriate "TV Signal" is chosen.
2 Video or photo file selection and playback procedures are managed directly from your iPod player or at "Simple Mode".
3 With the iPod (IPD 1) dock's S-VIDEO OUT and AUDIO OUT ports connected to the VISO TWO's VCR input or to any other assignable input, you can now directly enjoy via VISO TWO your video or photo selections as uploaded in your iPod. Make sure that you select the correct source input of the VISO TWO.
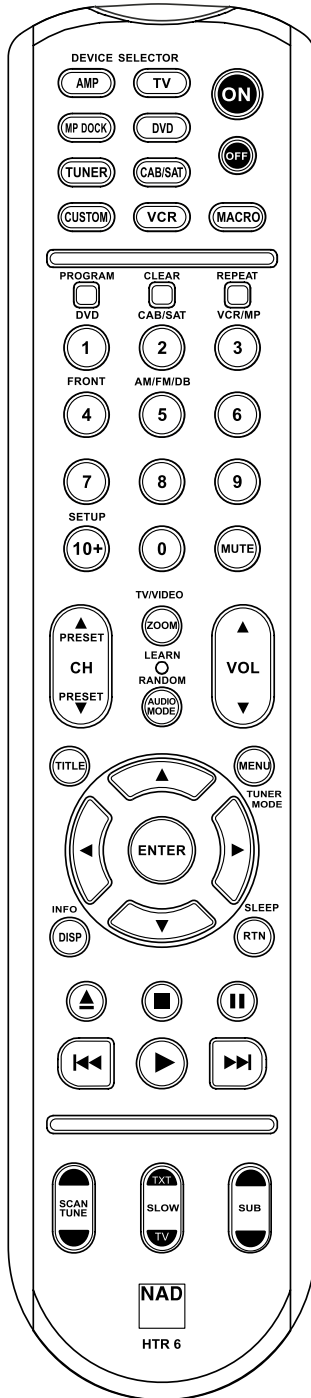
NOTE

iPod player functions, features and playback capabilities accessible through VISO TWO may vary depending on your iPod player model. Check NAD IPD-1's specifications with regards to specific iPod models it supports.

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

OPERATION

USING THE HTR 6 REMOTE CONTROL

SPECIFICATIONS

- Controls up to 8 devices.
- 44 function keys.
- Learns up to 352 commands.
- Records up to 44 macros with a maximum of 64 commands each.
- Configurable punch-through.
- Key illumination with programmable timeout.
- Upgradable.
- Contains pre-programmed library of NAD remote codes.

The NAD HTR 6 is ready to operate the VISO TWO right out of the box, but it is really eight remotes in one. Each of the 8 Device Selector keys at the top of the handset can call up a new "page" of remote control codes to be transmitted by the remaining 44 keys. You may "teach" codes from any infrared-remote controlled component, regardless of brand, to any or all of these.

Obviously, the most logical system is that you teach the codes from your DVD player to the [DVD] Device Selector "page," your television's codes to the [TV] "page," and so on, but there is no required scheme: You may load any commands to any key on any page (see "Learning Codes From Other Remotes," below).

The HTR 6 is already preprogrammed with a full complement of commands for the VISO TWO on its [AMP] Device Selector page, and as well as with library commands to operate most NAD-brand DVD or CD components on the corresponding Device Selector "pages." These default commands are permanent: Even if you teach the HTR 6 new commands to take their place, the underlying library commands remain in place and can easily be recalled should you add an NAD component to your system later (see "Delete Mode", below).

NOTE

For use with the VISO TWO, it should not be necessary to re-program any keys on the HTR 6 [AMP] page. However, in order for the HTR 6 to control your specific NAD-brand components you may need to load one or more different code-libraries (see "Loading Code Libraries," below).

CONTROLLING THE VISO TWO

The HTR 6 is divided into two main sections. Eight Device Selector keys at the top—[AMP], [DVD], [TV] and so on—set the handset's remaining keys to a "page" of commands to control a particular component. A Device Select key determines only what component the HTR 6 will command; it does not perform any function on the VISO TWO. All of the remaining keys are function keys that can "learn" control codes from virtually any infrared remote controller, allowing you to teach the codes of your equipment, regardless of brand, to the HTR 6.

However, the HTR 6 is already preprogrammed to operate the VISO TWO. All of the function keys on the [AMP] Device Selector "page" perform VISO TWO functions. (The HTR 6 can also command many other NAD components, from its [DVD], [CD], [TUNER] and [CUSTOM] pages.)

It is important to note that certain HTR 6 keys perform different functions depending on the selected Device Selector "page." The color of the Device Selector key-labeling corresponds to the labeling of the function keys. Most centrally, the orange [AMP] Device Selector "page" corresponds to the orange input-select labeling above the numeric keys: When the HTR 6's [AMP] Device Selector page is active, these keys select the VISO TWO inputs. Similarly, the purple [DVD] Device Selector "page" corresponds to several purple labels, the green [TV] page to green labels, and so on.

SELECTING SOURCES

To directly switch or select sources using the HTR 6, set first your DEVICE SELECTOR to "AMP". Press the corresponding numeric key of the source you want to select (the orange label directly above the appropriate numeric keypad is the Source allocated for such key). For example, press "2" to select "Cable/Sat" source mode, "1" to switch to "DVD" mode and so on.

LEARNING CODES FROM OTHER REMOTES

Begin by positioning the HTR 6 "nose-to-nose" with the source remote so the two devices' infrared windows are about 2 inches apart.

- Enter Learning Mode: On the HTR 6, simultaneously press-and-hold for 3 seconds both a Device Selector key and the [▲] key until the Learn LED at the center of the HTR 6 turns steady green.
- Press the HTR 6's function key you wish to teach a command; the Learn LED will turn amber.
- Press-and-hold the function key on the source remote: The HTR 6's Learn LED will flicker amber for a second or two, then turn solid green. The command is learned.
- Press the HTR 6's Device Selector key again to exit the learning mode.

If the Learn LED does not flicker amber you may need to vary the distance between the remotes. If the Learn LED turns red rather than green, that particular command of that source remote command could not be learned.

CANCEL OPERATION

You can cancel configuring a key, by pressing the active Device Selector key before the learn process is complete; the Learn LED will turn red.

Example: Learning "DVD Pause"
Position the HTR 6 and your DVD player's remote as described above.

- On the HTR 6, simultaneously press-and-hold [DVD] and [▲]; the Learn LED turns steady green.
- Press the HTR 6's [❚❚] key; the Learn LED turns amber.
- Press-and-hold the DVD player's remote's pause key; the HTR 6's Learn LED flickers amber and then turns solid green. The command is learned.
- Press [DVD] again to exit the learning mode.

PUNCH-THROUGH

The HTR 6's "punch-through" function allows you to retain a function key from one Device Select "page" to another, so that, for example, the AMP [SURR MODE] function might still control the VISO TWO when the DVD Device Selector page is active.

NOTE

The HTR 6's [VOL] keys are pre-programmed as "punched-through" for all Device Select pages: [VOL] will operate the VISO TWO's volume regardless of the currently selected device. The [SUB] level control is similarly pre-programmed as punched-through.

To set a punch through, after entering the Learning Mode, and pressing the desired key to be punched through, simply press the device key twice of the device to punch through to. The status LED will turn green; press the Device Selector key again to exit Learning Mode.

Example: Punch-through AMP [SURR MODE] key to the DVD "page"

- On the HTR 6, simultaneously press-and-hold [DVD] and [▲]; the Learn LED turns steady green.
- Press [SURR MODE]; the Learn LED turns amber.
- Press [AMP] twice; the Learn LED turns green.
- Press [DVD] again to exit the learning mode.

NOTE

The HTR 6 control keys [▲], [❚❚], [■], [I◀◀/▶▶I/◀◀/▶▶] and [▶] are not punch-through function keys. To use them for disc playback purposes, make sure that HTR 6's DEVICE SELECTOR is set to "DVD".

COPY COMMAND FROM ANOTHER BUTTON

You may copy a command from any HTR 6 key to any other key. To copy a key function, after entering the Learning Mode, and pressing the desired key to be copied to, simply press the device key from which you wish to copy, having first pressed its Device Selector key if it resides on another "page." The status LED will turn green; press the Device Selector key again to exit Learning Mode.

Example: Copy the Pause command from the CD page to the AMP [❚❚] key:

- On the HTR 6, simultaneously press-and-hold [AMP] and [▲]; the Learn LED turns steady green.
- Press [❚❚] (pause); the Learn LED turns amber.
- Press [CD]; press [❚❚] (pause); the Learn LED turns green.
- Press [AMP] again to exit the learning mode.

NOTE

The copy and punch-through functions are similar. However, if you copy a command and then subsequently delete, or over-write the original (source-key) command , the copied-to key's command remains unchanged. If you punch-through to a command and then delete or over-write the original key, the punched-through functions also change accordingly.

MACRO COMMANDS

A "macro" command is a series of two or more remote codes issued automatically from a single keypress. You might use a macro to automate a simple command sequence, such as, "Turn on the DVD player" and then press "play". Or you might compose an elaborate macro to power up an entire system, select a source, choose a Listening Mode, and begin playback—again, all from a single keypress. The HTR 6 can store one macro on each of its function keys (these exclude the Device Selector keys).

NOTE

Macros are independent of the currently selected device.

RECORDING MACROS

To record a macro, simultaneously press-and-hold for 3 seconds both the [MACRO] key and the HTR 6 function key to which you wish to assign the macro, until the status LED turns green. The macro button will also light up.

Press the sequence of function keys to be recorded into the macro, being sure to first press the requisite Device Selector key for each function (you may switch devices while recording the macro as many times as necessary), allowing you to create macro containing commands from more than one Device Selector "page."

When you have finished entering the desired command sequence, press [MACRO] again to store the macro; the Learn LED and [MACRO] key illumination will turn off.

NOTE

Each macro can store a maximum of 64 command steps. If you exceed this number, the macro will be stored automatically after the 64th command is added.

Example: Record a Macro to the [0] key to Turn on the VISO TWO, Select the DVD Input, and Commence Playback:

- On the HTR 6, simultaneously press-and-hold [MACRO] and [0] (numeric zero); the Learn LED turns steady green.
- Press [AMP]; press [ON]; press [1] ("DVD"); press [DVD]; press [▶] (Play) - the Learn LED blinks as each step is added.
- Press [MACRO] again to exit the macro-record mode.

To clear a macro, perform the above steps without entering any functions.

OPERATION

USING THE HTR 6 REMOTE CONTROL

EXECUTING MACROS

To execute a macro, press and release [MACRO]; its key illumination lights for 5 seconds. While it remains lit, press an HTR 6 key to which a macro has previously been stored.

The corresponding macro will run; as each step executes, its "parent" Device Selector's key flashes lights briefly; when execution is finished, the [MACRO] key illumination goes out. Pressing any other HTR 6 key while a macro is executing will abort the macro. Remember that you must hold the HTR 6 so that its infrared emitter can activate the target components.

NOTE

When a macro executes, a 1 second delay is automatically inserted between its commands. If you need more than a 1 second delay between particular commands—for example, to permit a component to power up completely—you can record "empty" steps into the macro by changing Device Selector "pages" without entering actual command functions.

BUTTON ILLUMINATION TIMEOUT

The HTR 6's key-illumination can be set to remain lit for 0-9 seconds. The default value is 2 seconds. To set the illumination timeout, simultaneously press-and-hold for 3 seconds both the HTR 6's [DISP] and the [0-9] key, with the digit corresponding to the desired timeout duration; the Learn LED will flash twice to confirm the new setting. When set to zero, the illumination will not turn on at all.

NOTE

Key illumination is the biggest drain on the HTR 6's batteries. A short key-illumination timeout will extend battery life appreciably; turning it off altogether (set it to 0 seconds) will lengthen it still further.

FACTORY RESET

The HTR 6 can be reset to its factory state, deleting all learned commands, copied and punched-through keys, macros, and other setup information, reverting all keys to their pre-programmed library commands.

To perform a factory reset simultaneously press-and-hold for 10 seconds the HTR 6's [ON] and [RTN] keys; the Learn LED will start to flash green. Release [ON] and [RTN] before the second flash is complete; the Learn LED will turn red, indicating the remote has been reset.

NOTE

You must release [ON] and [RTN] before the second flash goes out, otherwise the unit will not reset; should this occur, repeat the full procedure.

DELETE MODE

The HTR 6 can store learned, copied, and "default library" commands on any single key (The default library commands are the pre-programmed NAD codes, such as the native VISO TWO commands on the [AMP] "page.").

You can delete commands by layers back "down" to the default library command on any key, removing learned commands, punched-through functions, and copied keys.

NOTE

The default library commands cannot be deleted, so you need not worry that using Delete Mode might cause irreparable changes.

To enter Delete Mode, simultaneously press-and-hold for 3 seconds both the desired key's Device Selector key and the [RTN] key, until the Learn LED turns green. Press the function key whose command you wish to delete; the Learn LED flashes; the number of times indicates which type of function has become active - see the table below. Press the active Device Selector key again to exit Delete Mode.

NOTE

You may delete multiple function-key commands on the same Device Selector "page," but to delete from more than one Device Selector page you must exit Delete Mode and then re-enter it on the required page.

Flashes	Command Type
1	Default Library Command
2	Copied Library Command
3	Learned Command

LOADING CODE LIBRARIES

The HTR 6 can store a different library of default NAD codes for each of its Device Selector "pages." If the original default library does not control your NAD CD player, DVD player, or other component, follow the procedure below to change the code-library.

Begin by ensuring that the component you wish the HTR 6 to control is plugged in and powered-up ("on," not merely in standby). To enter the HTR 6's Library Mode, simultaneously press-and-hold for 3 seconds both the desired Device Selector key and the [PROGRAM] key, until the Learn LED turns green.

While keeping the HTR 6 pointed toward the component, enter the first appropriate three-digit code-library number from the table below. Press [OFF]. If the component turns off, press [ENTER] to accept that code-library number and exit the Library Mode. If the component does not turn off, enter the next three-digit code-library number from the table.

When you enter the correct number the component will turn off; press [ENTER] to accept that code library number and exit the Library Mode.

LIBRARY CODE	NAD PRODUCT DESCRIPTION	LIBRARY CODE	NAD PRODUCT DESCRIPTION
100	Receiver/Processor (Discrete ON/OFF)	301	L75, L76 Tuner
101	Receiver/Processor (Toggle ON/OFF)	302	L70 Tuner
102	S170	303	L53 Tuner
103	L75	304	L73 Tuner
104	Second Zone Commands	305	C425
105	L70	306	C445
106	L76	307	Txx5 Series Tuner
107	118	400	Tape Deck B
108	L53	401	TAPE Deck A
109	L73	500	TV 280
110	Stereo Receiver/ Amplifier	501	MR13
111	Stereo Second Zone	502	MR20
112	Txx5 Series	503	PMR45
200	CD Player	600	T535, T562, T585, M55
201	CD Player (old)	601	T550, L55
202	5170, 5240, 5340	602	T512, T531, T532, T571, T572
203	5325	603	L70, L73 DVD
204	5060	604	L56
205	M5	605	T513, T514, T515, T524, T533, T534
300	Tuner	606	L53 DVD

SEARCH MODE

If none of the codes from the table, when entered, turns on the component, and if you are quite sure you have followed the above procedure completely and carefully, you may want to try the "search" method as follows:

Enter Library Mode by simultaneously pressing-and-holding for 3 seconds both the desired Device Selector key and the [PROGRAM] button until the Learn LED turns green. Now press-and-hold the HTR 6's [▲/▼]) key; the remote will step through all the available codes at a rate of approximately 1 per second.

When the component turns off, immediately release the cursor key; press [ENTER] to accept that code-library and exit the Library Mode. Try a few commands; should you prove to have stepped past the needed code-library, re-enter the Library Mode and use the cursor key to step back to it.

NOTE

It is possible that search mode will find code-libraries that operate, at least partially, some other brand (non-NAD) components. You may certainly exploit such capabilities as you find them. However, since we can only ensure the completeness or accuracy of NAD code-libraries, we cannot support the HTR 6's operation with other-brand components.

CHECKING CODE-LIBRARY NUMBER

You can check the current code-library on any Device Selector key as follows. Enter Library Mode by simultaneously pressing-and-holding for 3 seconds both the desired component's Device Selector key and the [PROGRAM] key until the Learn LED turns green. Press the [DISP] key; the HTR 6 indicates the current code-library by flashing its [CUSTOM], [VCR], and [MACRO] keys.

For example, to indicate code-library #501, the HTR 6 will flash [CUSTOM] 5 times, pause, and then flash [MACRO] once. You might wish to make a note of your components' code-library numbers.

Summary of the HTR 6 Modes

Mode	Keys To Press (for 3 seconds)
Learn/Copy/Punch Through	Device Key + [▲] Key
Delete Mode	Device Key + RTN Key
Macro Record	Macro Key + Function Key
Library Mode	Device Key + Program Key
Back Light Timeout	DISP Key + Digit Key
Factory Reset	See "Factory Reset" above

SLEEP MODE

The Sleep Mode timer will switch the VISO TWO to Standby mode automatically after a preset number of minutes. Pressing the HTR 6's SLEEP button once will display the setting of the sleep time increment. Pressing the HTR 6's SLEEP button a second time within a 3-second period will change the sleep time increment in 30-minute intervals, after which time the VISO TWO will automatically switch into Standby mode.

To adjust the sleep delay, press the HTR 6's SLEEP button twice; first to display the sleep time increment, and a second time to change the sleep time increment. The sleep time increment and a "SLEEP" icon will continuously display on the VISO TWO's front panel Vacuum Fluorescent Display (VFD). Each consecutive press increases the sleep time in 30-minute increments from 30 to 90 minutes. To cancel the sleep mode, continue pressing the HTR 6's SLEEP button until "Sleep Off" displays on the VFD. Switching the VISO TWO to standby from either the HTR 6's OFF or the VISO TWO's POWER button will also cancel the sleep mode

NOTE

In order to use SLEEP button, make sure that HTR 6's DEVICE SELECTOR page is set to "AMP".

REFERENCE

TROUBLESHOOTING

ENGLISH

CONDITION	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
No sound from all channels.	• AC power unplugged.	• Check AC cable connection and outlet.
	• Power not switched on.	
	• Outlet has no power.	
No sound from some channels.	• Faulty/missing cables.	• Check cables.
	• Speaker connections faulty.	• Check speaker connections.
	• "Speaker Settings" channel (s) set to "Off".	• Check "Speaker Settings" menu.
No sound from Subwoofer.	• Subwoofer is off, not powered or improperly connected.	• Power-up subwoofer, check Sub's AC outlet or check connections.
	• Sub level set too low.	• Correct subwoofer level by adjusting "SUB" button at HTR 6.
VISO TWO does not respond to HTR 6 remote control.	• Batteries are flat or incorrectly inserted.	• Check batteries.
	• IR transmitter window on remote or IR receiver window on VISO TWO is obstructed.	• Check IR windows and ensure clear line-of-sight from remote to VISO TWO.
	• VISO TWO front panel is in very bright sunlight or ambient light.	• Reduce sunlight/room lighting.
VISO TWO does not respond to front panel commands or remote control.	• Microprocessor error.	• Power down the VISO TWO via the front panel Power switch and unplug it from the AC outlet.
	• VISO TWO may have over heated.	• Wait five minutes, re-connect and power up.
The POWER is ON, but the internal DVD player does not work.	• No disc is inserted.	• Insert a disc.
No picture.	• The TV is not set to receive video signal.	• Select the appropriate video input mode on the TV so that the picture from the VISO TWO appears on the TV screen output.
	• The video cable is not connected securely.	• Connect the video cable into the jacks securely.
	• The connected TV power is turned off.	• Power on the TV.
	• HDMI connector is plugged-in and "HDMI Res." is set to 720P, 1080I or AUTO.	• Unplug HDMI cable connected to rear panel's HDMI OUT.
		• At DVD mode and with no disc loaded ("NO DISC") 1 Press and hold [DISPLAY] button. The lower line of the VFD will show the current HDMI resolution setting. 2 Use the remote's [◄/►] keys or toggle [MEMORY] button to select through 480P/576P, 720P, 1080I, AUTO or OFF. Select either "480P/576P" or "OFF" to enable component video out, composite and S-Video output. Stop at your desired resolution setting and release [◄/►] keys or [MEMORY] button.
The playback picture is poor.	• The disc is dirty.	• Clean the disc.
The internal DVD player does not start playback.	• No disc is inserted.	• Insert a disc
	• An unplayable disc is inserted.	• Insert a playable disc (Check the disc type colour system and Regional code).
	• The disc is placed upside down.	• Place the disc with the playback side down.
	• The disc is not placed within the guide.	• Place the disc correctly inside the guide on the disc tray.
	• A menu is on the TV screen.	• Press SETUP button of HTR 6 to turn off the menu screen.
	• The disc is dirty.	• Clean the disc.
Parental Control cannot be changed.	• The password entered was wrong.	• Enter the correct password.
	• Password was forgotten.	• Set the VISO TWO to factory default settings. 1 Place the VISO TWO into AM mode. 2 Press quickly the three front panel buttons; [PLAY/PAUSE] then [STOP] then [DISPLAY], holding the [DISPLAY] button for more than 7 seconds. The VISO TWO will switch itself off then back on to DVD mode. Note: Default password is 2580.

AMPLIFIER SECTION

Power output Stereo Mode	50W
IHF dynamic power; 8 Ω	70W
IHF dynamic power; 4 Ω	100W
Total harmonic distortion at rated power	0.08%
IM distortion at rated power	0.08%
Damping factor, 8 Ω	>60
Input sensitivity and impedance	300 mV/47kΩ
Frequency response	±0.5 dB (ref. 20Hz to 20kHz)
Signal/noise ratio	>100 dB (ref rated power/ 8Ω A-WTD)
Signal/noise ratio	>85 dB (ref 1W/ 8Ω A-WTD)

TUNER SECTION

AM SECTION

Tuning range	522kHz -1620kHz (Europe version, 9kHz steps)
	530kHz -1710kHz (North America version,10kHz steps)
Usable sensitivity	60 dBu
S/N ratio	40 dB
Total Harmonic Distortion	1.5%

FM SECTION

Tuning range	87.5MHz - 108MHz
Usable sensitivity, MONO	10 dBu
S/N Ratio MONO	70 dB
S/N Ratio STEREO	65 dB
Total Harmonic Distortion, MONO	0.3%
Total Harmonic Distortion, STEREO	0.3%
Channel Separation	50 dB
RDS decode sensitivity	0.2%

DVD SECTION

SYSTEM

Signal system	PAL/NTSC/Auto
Laser	Two wavelength laser diode
CD	Wavelength 790nm
DVD	Wavelength 650nm
Frequency response	± 0.5 dB (ref. 20Hz to 20kHz)
Signal-to-noise ratio (audio)	100 dB (A-WTD)
Dynamic range (audio)	95 dB (A-WTD)
Total Harmonic Distortion	0.02%

OUTPUT

Video out	1Vp-p/ 75Ω
S-video out (Y signal)	1Vp-p/ 75Ω
S-video out (C signal)	0.286 Vp-p/ 75Ω
Component video out (Y signal)	1Vp-p/ 75Ω
Component video out (Cb/Cr signal)	0.7Vp-p/ 75Ω
SCART (RGB signal)	0.7Vp-p/ 75Ω
Digital out (coaxial)	0.5 Vp-p/ 75Ω
Digital out (optical)	-15 dBm ~ -21 dBm
Audio/Video Out (HDMI)	Ver 1.0 x 1

PHYSICAL SPECIFICATIONS

Dimensions (W x H x D)	435 x 115 x 370 mm
Net Weight	9.9 kg
Shipping Weight	12.5 kg

Specifications are subject to change without notice. For updated documentation and features, please log onto www.NADelectronics.com for the latest information about VISO TWO.

NAD