



M15 HD

AV Surround Sound Preamplifier

ENGLISH



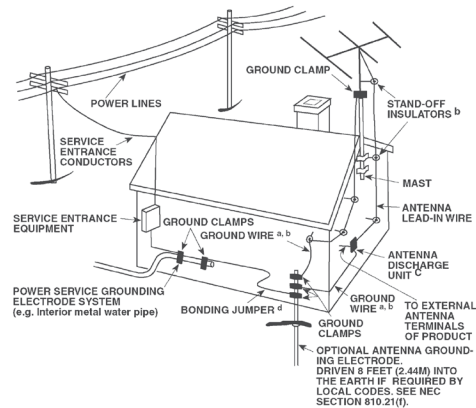
Owner's Manual

IMPORTANT SAFETY INSTRUCTIONS

- 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.  Cart** - 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 to ensure reliable operation of the product and to protect it from overheating. 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 and connected to a MAINS socket outlet with a protective earthing connection. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.
- 12. 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.
- 13. Mains Plug** - Where the mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- 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. Flame Sources** - No naked flame sources, such as lighted candles, should be placed on the product.
- 19. 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.
- 20. Headphones** - Excessive sound pressure from earphones and headphones can cause hearing loss.
- 21. 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.
- 22. 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.

23. Battery Disposal - When disposing of used batteries, please comply with governmental regulations or environmental public instruction's rules that apply in your country or area.

24. 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.

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

WARNING



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 may be 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.



THE EQUIPMENT MUST BE CONNECTED TO AN EARTHED MAINS SOCKET-OUTLET.

CAUTION REGARDING PLACEMENT

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

- Left and Right Panels: 10 cm
- Rear Panel: 10 cm
- Top Panel: 10 cm

FCC STATEMENT

This equipment has been tested and found to comply with the limits for 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.

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

To prevent electric shock, match wide blade of plug to wide slot, fully insert.

CAUTION

Marking and rating plate can be found at the rear panel of the apparatus.

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

The apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on apparatus.

Mains plug is used as disconnect device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.

Battery shall not be exposed to excessive heat such as sunshine, fire or the like.

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.

An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.

IF IN DOUBT CONSULT A COMPETENT ELECTRICIAN.



This product is manufactured to comply with the radio interference requirements of EEC DIRECTIVE 2004/108/EC.

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.

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

The model and serial number of your new M15 HD are located on the back of the cabinet. For your future convenience, we suggest that you record these numbers here:

Model number :
 Serial number :

INTRODUCTION

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THANK YOU FOR CHOOSING NAD.

The M15 HD AV Surround Sound Preamplifier is a technologically advanced and highly capable product — yet we have invested great effort in making it simple and easy to use. The M15 HD delivers a range of genuinely useful options for surround sound and stereo listening alike, using powerful digital signal processing and superbly accurate digital-audio circuitry. However, we have also been careful to ensure that the M15 HD is as musically transparent, faithful to every video detail and spatially accurate as possible, incorporating much of what we've learned from a quarter-century's experience designing audio, video and home-theater components. As with all our products, NAD's "Music First" design philosophy guided the M15 HD's design, such that it can confidently promise you both state-of-the-art surround 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 M15 HD, and get the most from this powerful and flexible home-theater component.

One more thing: We urge you to register your M15 HD ownership on the NAD Worldwide Web site:

<http://NADelectronics.com/salon>

For warranty information contact your local distributor.

NAD SHALL NOT BE HELD LIABLE FOR ANY TECHNICAL OR USER INTERFACE DISCREPANCIES IN THIS MANUAL. THE M15 HD OWNER'S MANUAL MAY BE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. CHECK OUT THE NAD WEBSITE FOR THE LATEST VERSION OF THE M15 HD OWNER'S MANUAL.

WHAT'S IN THE BOX

Packed with your M15HD you will find

- A detachable mains power cord
- Audyssey microphone
- 3.5mm female jack to RCA plug Adapter for Audyssey microphone input
- The HTRM remote control with 4 AA batteries
- ZR 5 zone remote control with 3V CR2025 battery
- Owner's manual in CD-ROM

SAVE THE PACKAGING

Please save the box and all of the packaging in which your M15 HD arrived. Should you move or otherwise need to transport your M15 HD, 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 25 feet / 8 meters, between the M15 HD's front panel and your primary listening/viewing position—this will ensure reliable infrared remote control communications. The M15 HD generates a modest amount of heat, but nothing that should trouble adjacent components.

It is perfectly possible to stack the M15 HD on top of other components, but the reverse usually should be avoided.

DEFAULT SOURCE SETTINGS

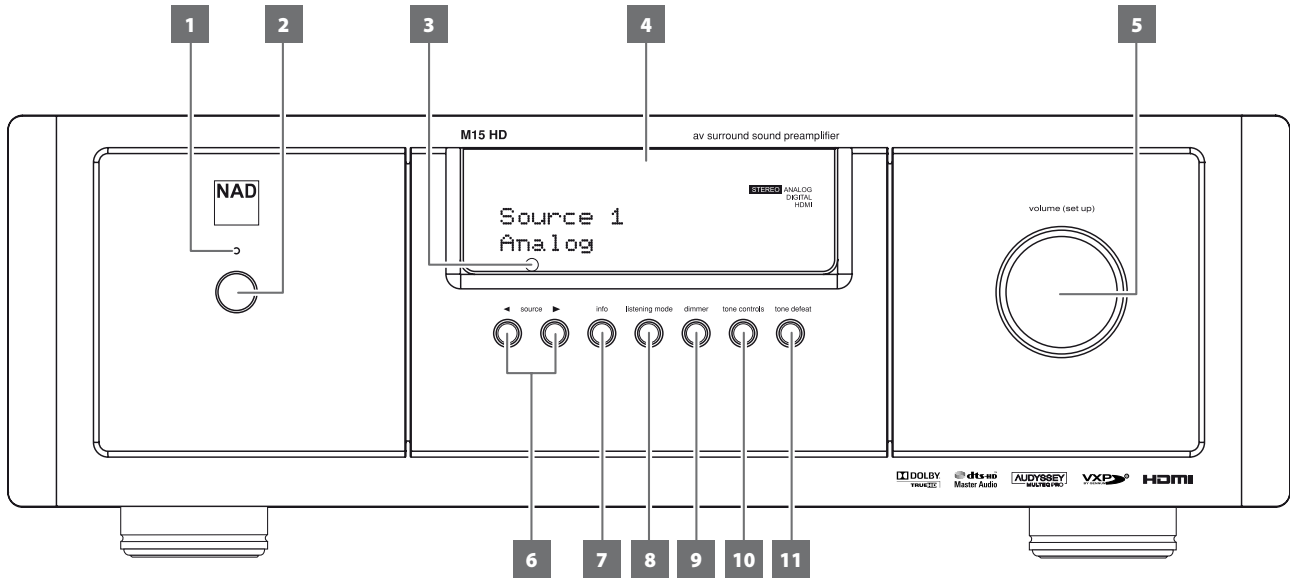
The following table lists the default SOURCE settings. Note that the Audio input settings show both digital and analog audio input. Digital input will always take precedence over analog audio input even if both are present.

Source	Audio Input	Video Input
Source 1	HDMI 1/ Audio 1 IN	HDMI 1
Source 2	Optical 2 IN/ Audio 2 IN	Component Video 2 IN
Source 3	Coaxial 3 IN/Audio 3 IN	Video 3 IN
iPod	Audio 4 IN	S-Video 4 IN
Source 5	Optical 1 IN/Audio 5 IN	Component Video 1 IN
Source 6	Coaxial 2 IN/Audio 6 IN	S-Video 2 IN
Source 7	7.1 Input	Component Video 3 IN
Source 8	Audio 7 IN	Video 1 IN
Source 9	HDMI 2	HDMI 2

To modify the above default settings and for a better understanding of source setting and combinations, please refer to the item about "SOURCE SETUP" in the "USING THE M15 HD - SETUP MENU" segment of the "OPERATION" section.

IDENTIFICATION OF CONTROLS

FRONT PANEL



1 STANDBY LED

- This indicator will light up amber when the M15 HD is at standby mode.
- When the M15 HD is powered up from standby mode, this indicator will illuminate blue.
- If a Zone (Zone 2, Zone 3 or Zone 4) is ON and STANDBY button is pressed to switch the M15 HD to standby mode, the VFD will be extinguished but the STANDBY LED remains illuminated blue. This indicates a Zone (Zone 2, Zone 3 or Zone 4) is still active. The corresponding active Zone icon(s) will also remain displayed in the VFD.
- In order to completely shut down the M15 HD with Zone 2, Zone 3 and/or Zone 4 still ON, press and hold STANDBY button until the STANDBY LED turns amber.
- In the unlikely event that the M15 HD switches to protection state, this indicator will illuminate red.
- When infrared command from the HTRM is received, this indicator will also flash momentarily.

2 STANDBY BUTTON

- Press this button to switch ON the M15 HD from standby mode. The Standby LED indicator will turn from amber to blue and illuminate the VFD. Pressing the STANDBY button again turns the unit back to standby mode.
- The M15 HD can also be switched ON from standby mode by pressing any of the front panel buttons.

NOTES

- *The rear panel POWER switch must be in the ON position for the Standby button to activate.*
- *If "Auto Trigger In" at Trigger Setup menu is assigned to "Main" or "All" and the +12V TRIGGER IN switch is set to "AUTO" mode, the standby button in the front panel as well as the corresponding ON/OFF function keys in the HTRM remote control will be disabled effectively handling this function to an external controller. Slide to "OFF" the +12V TRIGGER IN switch to maintain normal power ON/OFF function procedures.*

3 REMOTE SENSOR

- Point the HTRM remote control at the remote sensor and press the buttons.
- Do not expose the remote sensor of the M15 HD to a strong light source such as direct sunlight or illumination. If you do so, you may not be able to operate the M15 HD 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.

4 VACUUM FLUORESCENT DISPLAY (VFD)

- Displays visual information about the current settings like the active Source, volume level, listening mode, audio format, iPod-related display information and other related indicators.
- Refer also to the item about DISPLAY SETUP under the USING THE M15 HD - SETUP MENU segment of the OPERATION section.

5 VOLUME

- Use this control to adjust the overall loudness of the signal output at AUDIO PRE-OUT.
- The default volume level is -20dB.
- The VOLUME knob is also used to increment/decrement other adjustable parameters like Tone Controls.

6 ◀ SOURCE ▶

- Toggle through the input selections - Source 1, Source 2, Source 3, iPod, Source 5, Source 6, Source 7, Source 8 and Source 9.
- Refer also to the item about SOURCE SETUP under the USING THE M15 HD - SETUP MENU segment of the OPERATION section.

7 INFO

- Show information as supplied by the applicable source.
- Toggle [INFO] button to display supplied information.

8 LISTENING MODE

- Toggle to select through the various Listening mode options. Depending on the format of the currently selected input (digital or analog, stereo or multichannel), various listening modes are available.
- Refer also to the item about LISTENING MODE under the USING THE M15 HD – MAIN MENU segment of the OPERATION section.

9 DIMMER

- Toggle to either reduce or restore normal VFD brightness.

10 TONE CONTROLS

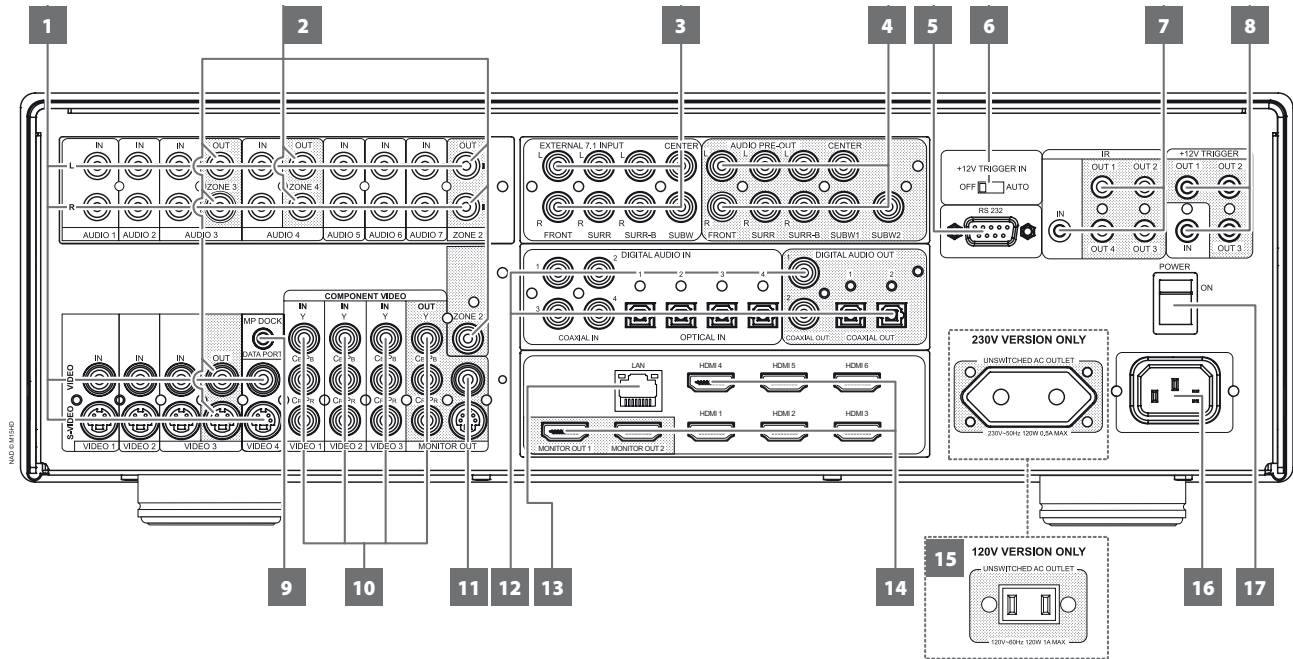
- Press to adjust TREBLE control using the VOLUME knob over a $\pm 10\text{dB}$ range. Press again to adjust BASS control and a third time for DIALOG control.
- Refer also to the item about TONE CONTROLS under the USING THE M15 HD – MAIN MENU segment of the OPERATION section.

11 TONE DEFEAT

- Tone Controls are enabled or disabled by pressing this button. Tone controls are bypassed at "Tone Defeat" while at "Tone Active", the tone controls are enabled again.
- Refer also to the item about TONE CONTROLS under the USING THE M15 HD – MAIN MENU segment of the OPERATION section.

IDENTIFICATION OF CONTROLS

REAR PANEL



ATTENTION!

Please make sure that the M15 HD is powered off or unplugged from the mains power source 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 AUDIO 1-7 IN/VIDEO 1-4 IN/S-VIDEO 1-4 IN

- These comprise the M15 HD's other sets of principal input. Connect these audio and video input ports to corresponding output ports of compatible source components such as DVD players, CD players or cable/satellite boxes.
- AUDIO 6 IN and AUDIO 7 IN are ideal for the connection of the analog output of line-level audio sources like a CD player or Stereo tuner.
- AUDIO 4 IN and S-VIDEO 4 IN are the assigned default ports for the audio/video output of the separately sold NAD IPD (NAD IPD Dock for iPod) 1, NAD IPD 2 and later variants.
- The Left Channel of AUDIO 1 IN is the assigned port where the supplied 3.5mm female jack to RCA plug Adapter can be connected. Plug in the Audyssey microphone into the adapter for Audyssey Auto Calibration.

AUDIO 3-4 OUT/S-VIDEO 3 OUT

- Connect AUDIO 3 OUT/S-VIDEO 3 OUT (and/or AUDIO 4 OUT) to corresponding recording components or audio/video input ports of compatible sources like cassette deck, CD/DVD recorder or outboard audio processors.
- The signal present at AUDIO 3 OUT/S-VIDEO 3 OUT is determined by the current source selected. There will be no output at AUDIO 3 OUT/S-VIDEO 3 OUT when AUDIO 3 is selected. Likewise, there will be no output at AUDIO 4 OUT when AUDIO 4 is the active source input. This prevents feedback through the recording component thereby preventing possible damage to your speakers.
- When configured, AUDIO 3 OUT and AUDIO 4 OUT are the same assigned ports for Zone 3 and Zone 4 respectively. See also Zone output description below.

2 ZONE 2-3-4

- The M15 HD has three configurable Zones – Zone 2, Zone 3 and Zone 4. The Zone feature allows one to simultaneously experience in a different zone or location of the house a Source assigned to a particular zone.
- Sends zone selected audio and video output source to the corresponding audio and video input of another zone. Use high quality patch cables to reduce noise pickup over long distance runs.
- For a better understanding of zone settings, study below the section about "Zone Controls" of the "Main Menu" discussion as well as the item about "Zone Setup" under the "Setup Menu" literatures.

NOTE

"Zone 4" is audio only and not associated with any video input sources.

3 EXTERNAL 7.1 INPUT

- Connect to the corresponding analog audio output of a multichannel source component such as a DVD-Audio or multichannel-SACD player or external multichannel decoder (disc copy protected formats only allow analog signal transfer). Typically, these sources will produce 5.1-channel output, in which case the Surround Back jacks are left unconnected. The signal present at these jacks can be heard by selecting Source 7 (EXTERNAL 7.1 INPUT is defaulted to this Source).
- There is no bass-management or other processing (other than master-volume control) available to this 7.1 channel input.
- While the multichannel audio output of a DVD/BD player can be connected to these jacks, using the M15 HD's own Dolby Digital and DTS decoding and digital-analog converters via a digital connection will usually produce superior results.

4 AUDIO PRE-OUT

The AUDIO PRE- OUT makes it possible to use the M15 HD as a pre-amplifier to external power amplifiers for some or all channels.

- Connect FRONT L, FRONT R, CENTER, SURR R, SURR L, SURR-BL and SURR-BR to the respective channel input of a power amplifier or amplifiers driving the corresponding applicable speakers.
- Connect the SUBW1 (and/or SUBW2) output to powered ("active") subwoofers or to power amplifier channels driving a passive system.
- Unlike the full range channels, there is no power amplifier built into the M15 HD for a subwoofer.

5 RS 232

NAD is a certified partner of AMX and Crestron and fully supports these external devices. Check out the NAD website for information about AMX and Crestron compatibility with NAD. See your NAD audio specialist for more information.

- Connect this interface using RS-232 serial cable (not supplied) to any Windows compatible PC to allow remote control of the M15 HD via compatible external controllers.
- Refer to the NAD website for information about RS232 Protocol documents and PC interface program.

6 +12V TRIGGER IN (OFF/AUTO)

- When at AUTO position, the M15 HD selects the +12V TRIGGER IN to turn ON (if so assigned at the "Trigger Setup" menu) and at the same time disables the HTRM and front panel's ON/OFF function.
- When at OFF position, the trigger input is disabled.

WARNING

If "Auto Trigger In" at Trigger Setup menu is assigned to "Main" or "All" and the +12V TRIGGER IN switch is set to "AUTO" mode, the standby button in the front panel as well as the corresponding ON/OFF function keys in the HTRM remote control will be disabled effectively handling this function to an external controller. Slide to "OFF" the +12V TRIGGER IN switch to maintain normal power ON/OFF function procedures.

7 IR IN/IR OUT 1-3

These mini-jacks accept and output remote-controlled codes in electrical format, using industry-standard protocols, for use with "IR-repeater" and multi-room systems and related technologies.

- All NAD products with IR IN/IR OUT features are fully compatible with the M15 HD. For non-NAD models, please check with your other product's service specialists as to their compatibility to the M15 HD's IR features.

IR IN

- This input is connected to the output of an IR (infrared) repeater (Xantech or similar) or the IR output of another compatible device to allow control of the M15 HD from a remote location.

IR OUT 1, IR OUT 2

- Connect IR OUT 1 (and/or IR OUT 2) to the IR IN jack of a compatible device.
- Command and control the linked compatible device by directing its own remote control to M15 HD's infrared receiver.

IR IN and IR OUT 1, IR OUT 2, IR OUT 3

- Connect the M15 HD's IR IN to the IR OUT of a compatible device. Connect also the M15 HD's IR OUT 1 (and/or IR OUT 2, IR OUT 3) to the IR IN of a compatible device.
- With this setup, the M15 HD acts as an "IR-repeater" allowing the device connected to the M15 HD's IR IN control or command of the other device linked to M15 HD's IR OUT 1 (and/or IR OUT 2, IR OUT 3).

IR OUT 3

- IR OUT 3 can only function as an "IR-repeater" as described above.

8 +12V TRIGGER OUT

The M15 HD has three +12V TRIGGER OUT ports (OUT 1, OUT2 and OUT3) that can be configured to supply +12V DC to a linked component or system. See discussion on "Trigger Setup" at the "Setup Menu" literature for guidelines on how to configure +12V TRIGGER IN/OUT.

- Use a 3.5mm mini-jack connector to pass +12 volts at a maximum current of 50 milliamps to an auxiliary equipment such as a multichannel amplifier or subwoofer. The center conductor (hot) of the 3.5mm jack is the control signal. The outside conductor (shield) is the ground return-path.
- This output will be 12V when the M15 HD is ON and 0V when the unit is either OFF or in standby mode.

+12V TRIGGER IN

With this input triggered by a 12V DC supply, the M15 HD can be switched ON remotely from standby mode by compatible devices such as amplifiers, preamplifiers, receivers, etc. If the 12V DC supply is cut off, the M15 HD will return to standby mode.

- Connect this +12V Trigger input to the remote device's corresponding +12V DC output jack using a mono cable with 3.5mm male plug. The controlling device must be equipped with a +12V trigger output to use this feature.

9 MP DOCK

The M15 HD is equipped with a data port in the rear panel where an optional NAD IPD (NAD IPD Dock for iPod) 1, NAD IPD 2 and later variants can be plugged in.

- Connect the "MP DOCK (DATA PORT)" jack of the M15 HD to the corresponding "DATA PORT" socket of the optional NAD IPD model.
- AUDIO 4 IN and S-VIDEO 4 IN are the assigned default ports for the audio/video output of the separately sold NAD IPD (NAD IPD Dock for iPod) 1, NAD IPD 2 and later variants.
- Refer also to the "LISTENING TO YOUR iPod PLAYER" segment of the "OPERATION" section.

NOTE

The NAD IPD Dock for iPod is not supplied with your M15 HD.

10 COMPONENT VIDEO IN 1-3, COMPONENT VIDEO MONITOR OUT

- Connect the Component Video Input to Component Video output of compatible source components, typically a DVD player, BD player, digital cable box or other applicable components. Connect Component Video Monitor Out to the Component Video input of a compatible video monitor/TV.
- Be sure to observe consistency in connecting the Y/Pb/Pr jacks to the corresponding sources/inputs. The routing of the three component video input is fully configurable via the Source Setup item of the Setup Menu OSD.
- The M15 HD's sets of component video input and output are fully wideband and compatible with allowable HDTV formats.

11 MONITOR (S-VIDEO, VIDEO)

- Connect to the 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.

IDENTIFICATION OF CONTROLS

REAR PANEL

12 DIGITAL AUDIO IN (COAXIAL IN 1-4, OPTICAL IN 1-4)

- Connect to the corresponding optical or coaxial digital output of sources such as CD or BD/DVD players, digital cable box, digital tuners and other applicable components.
- Coaxial and Optical digital input association is configurable via the Source Setup item of the Setup Menu OSD.

DIGITAL AUDIO OUT (COAXIAL OUT 1-2, OPTICAL OUT 1-2)

- Connect the optical or coaxial DIGITAL OUT to the corresponding digital audio input of compatible devices such as receivers, computer soundcard or other digital processors.

13 ETHERNET/LOCAL AREA NETWORK (LAN) PORT

LAN connection must be setup for wired connection to be established. Set up a Wired Ethernet broadband router with broadband internet connection. Your router or home network should have a built-in DHCP server to consummate the connection.

- Using a standard straight-through Ethernet cable, connect one end of the Ethernet cable to the LAN port of your wired Ethernet broadband router and the other end to M15 HD's LAN port.
- This Ethernet connection has similar function as that of the RS232 connection. With your PC and the M15 HD on the same network, it allows remote control of the M15 HD via compatible external controllers.
- With your PC and M15 HD connected on the same network, the IP address of your M15 HD can be obtained. Press together and then release the front panel buttons [◀ SOURCE] and [SOURCE ▶] - "System Info" is shown in the VFD and OSD. Toggle [◀ SOURCE] or [SOURCE ▶] to individually show in the VFD the "System Info" details which include the IP address.
- Refer to the NAD website for information about RS232 Protocol documents and PC interface program.

NOTES

- *NAD is not responsible for any malfunction of the M15 HD and/or the internet connection due to communication errors or malfunctions associated with your broadband internet connection or other connected equipment. Contact your Internet Service Provider (ISP) for assistance or the service bureau of your other equipment.*
- *Contact your ISP for policies, charges, content restrictions, service limitations, bandwidth, repair and other related issues pertinent to internet connectivity.*

14 HDMI (HDMI IN 1-6, HDMI MONITOR OUT 1-2)

- Connect the sets of HDMI input to the HDMI OUT connectors of source components such as DVD player, BD player or HDTV satellite/cable box.
- Connect the HDMI MONITOR OUT 1 and/or HDMI MONITOR OUT 2 to compatible HDTV or projector with HDMI input. Both HDMI output ports display simultaneously the same audio/video source.

WARNING

Before connecting and disconnecting any HDMI cables, both the M15 HD and the ancillary source must be powered OFF and unplugged from the AC outlet. Failure to observe this practice may cause permanent damage to all equipment connected via HDMI sockets.

15 UNSWITCHED AC OUTLET

- With M15 HD switched ON or at standby mode, mains power is always available at this outlet.
- This outlet can be used for components that may require continuous supply of AC mains; some tuners require uninterrupted mains supply to retain preset memory, for instance.
- The total draw of all devices connected to this outlet must not exceed 120 watts.
- Mains power at this outlet can be shut down by switching OFF the M15 HD via the rear panel POWER switch.

16 AC MAINS INPUT

- The M15 HD comes supplied with a separate detachable mains power cord. Before connecting the plug to the mains powers source, connect firmly first the other end to M15 HD's AC Mains input socket.
- Always disconnect the mains power plug from the mains power source first, before disconnecting the cable from the M15 HD's AC Mains input socket.
- Connect only to the prescribed AC outlet, i.e., 120V 60 Hz (for 120V version models only) or 230V 50 Hz (for 230V version models only).

17 POWER

- Supply the AC mains power to the M15 HD.
- When the POWER switch is set to ON position, the M15 HD goes to standby mode as shown by the amber status condition of the Standby LED. Press the front panel Standby button or HTRM remote control's [ON] button to switch ON the M15 HD from standby mode.
- If you intend not to use the M15 HD for long periods of time (such as when on vacation), switch off the POWER switch.
- With POWER switched off, neither the front panel Standby button nor HTRM remote control's [ON] button can activate the M15 HD.

ABOUT THE ON-SCREEN DISPLAY (OSD)

The M15 HD employs a simple, self-explanatory system of on-screen display “menus” 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.

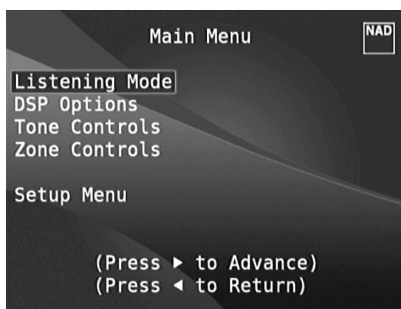
DISPLAY THE OSD

Press [D] or [ENTER] buttons of the HTRM remote control to display the M15 HD’s Main Menu on your video monitor/TV. If the OSD does not appear, check your MONITOR OUT connections.

NAVIGATING THE OSD AND MAKING CHANGES

To navigate through the OSD menu options, please do the following using the HTRM buttons:

- 1 Press [D] to select a menu item. Use [▲/▼] or in some cases, [ENTER], to move up or down the Menu selections. Repeatedly press [D] to advance or go further into the sub-menu of desired menu item.
- 2 Use [▲/▼] to set or change the parameter value (setting) of a menu item.
- 3 Press [C] to save the settings or changes done on the current menu or sub-menu. Pressing [C] will also return the user to the previous menu or exit from a particular menu.

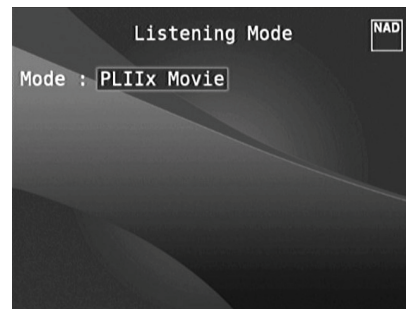
MAIN MENU

The Main Menu contains the menu options for “Listening Mode”, “DSP Options”, “Tone Controls”, “Zone Controls” and access to “Setup Menu”.

Follow the guidelines about “DISPLAY THE OSD” and “NAVIGATING THE OSD AND MAKING CHANGES” to navigate through the menu options and their sub-menu selections.

NOTE

The individual configurations set forth at “Listening Mode”, “DSP Options” and “Tone Controls” are carried over whenever they are enabled at A/V Presets setting. Please see the section “AV PRESETS” for reference.

LISTENING MODE

The M15 HD offers distinct listening modes, tailored for different types of recording or program material. With a two-channel (Stereo) source, the following listening modes can be selected:

IMPORTANT NOTICE

The M15 HD is an AV Surround Sound Preamplifier and therefore has no speakers. The mention of “Speaker(s)” in this manual refers to the speakers of your external amplifier as interfaced with the M15 HD.

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.

DIRECT

Analog or digital sources are automatically played in their native formats. All the source’s audio channels are reproduced directly. This mode recreates the original sound most faithfully thereby producing outstandingly high quality audio.

DIRECT listening mode is selectable only during source playback. In order to setup DIRECT as preferred listening mode, the following steps have to be undertaken.

- 1 Go to LISTENING MODE SETUP under SETUP MENU. Select LISTENING MODES. Under LISTENING MODES menu, set to “None” all the parameter settings for Dolby, DTS, PCM and Analog.
- 2 Then, go to A/V PRESETS items under SETUP MENU. Scroll to LISTENING MODE item and set to “Yes”. Store this LISTENING MODE setting to Preset 1 along with the other parameter settings by clicking “Save Current Setup to Preset”.
- 3 This saved “Preset 1” setting can now be associated to any Source. Below is a sample association.
 - a Under SOURCE SETUP (Normal View), go to SOURCE 1 and scroll down to A/V Preset and set “A/V Preset” to “Preset 1”.
 - b Now, whenever SOURCE 1 is recalled with “Preset 1” associated to it, the LISTENING MODE setting will always be DIRECT.

PRO LOGIC

Two-channel recordings, whether stereo or surround-encoded, are reproduced with Dolby Pro Logic surround processing, yielding output to front left/right, center and discrete left/right surround channels (assuming these are present in the current ‘Speaker Configuration’). The surround channel is monophonic, but it is reproduced in both surround speakers.

OPERATION

USING THE M15 HD – MAIN MENU

DOLBY PRO LOGIC IIx

Dolby Pro Logic IIx processes both stereo and 5.1 signals into a 6.1 or 7.1 channel output. At Dolby Pro Logic IIx, you can choose PLIIx Movie or PLIIx Music modes to tailor your listening experience to the source material. Dolby Pro Logic IIx surround processing yields more stable imaging and full bandwidth sound to the rear channels in Movie mode offering sound that is more similar to Dolby Digital decoding. For two channel signals, Pro Logic IIx Music mode also features three additional user controls - Dimension, Center Width, and Panorama. See also section about 'Adjusting Listening Modes' below.

The following chart shows the channels available assuming they are enabled in the 'Speaker Configuration' menu:

Listening Mode Two-Channel Sources	Active Decoded Output Channels	
	6.1 Speaker System	7.1 Speaker System
Dolby Pro Logic IIx Music Dolby Pro Logic IIx Movie	Front (left & right), Center, Surround (left & right), Back Surround, Subwoofer	Front (left & right), Center, Surround (left & right) and Back Surround (left and right) and subwoofer

DTS NEO: 6

Two-channel recordings, whether stereo or surround-encoded, are reproduced with Neo: 6 surround with output to front left/right, center and discrete left/right surround channels plus subwoofer (assuming these are present in the current 'Speaker Configuration'). The M15 HD provides two DTS Neo: 6 variations - NEO:6 Cinema and NEO:6 Music. See also section about 'Adjusting Listening Modes' below.

EARS

Two-channel recordings, whether stereo or surround-encoded, are reproduced with proprietary NAD surround processing with signals output to the front left/right, center and discrete left/right surround channels, plus subwoofer (assuming these are present in the current 'Speaker Configuration'). EARS does not employ the surround back speakers (if any).

EARS extracts the natural ambience present in nearly all well-produced stereo recordings. It does not synthesize any ambience or other sonic elements and thus remains truer to the sound of the original musical performance than most other music-surround options.

Select EARS for listening to stereo music recordings and broadcasts. EARS produces a subtle but highly natural and believable ambience from nearly all "natural-acoustic" stereo recordings. Typically, these include classical, jazz, and folk genres as well as numerous examples from others. Its virtues include realistic, stable "front-stage" sonic imaging and spacious but unexaggerated ambient "virtual acoustics" that remain faithful to the original recording.

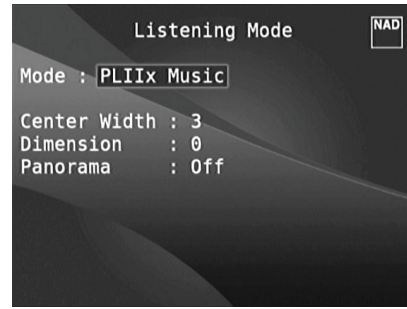
ENHANCED STEREO

All recordings are reproduced in stereo via the maximum speaker complement configured in the current 'Speaker Configuration.' Enhanced stereo can be useful for maximum volume from all channels or for multi-speaker background music (cocktail party) listening. For this mode, Front, Center, Surround and Back speakers can be turned ON/OFF as desired.

ANALOG BYPASS (APPLICABLE ONLY WHEN THE SOURCE SELECTED IS EXTERNAL 7.1 INPUT - DEFAULTED TO SOURCE 7)

All analog signals remain in the analog domain without analog-to-digital conversions. At Analog Bypass, the DSP circuitry is bypassed but full tone control functions remain. 'Bass management' or Speaker settings are also not in effect as these are DSP functions.

ADJUSTING LISTENING MODES



Several of the M15 HD's listening modes have one or more selectable variations and adjustable parameters that you can modify to suit your system or personal preferences.

NOTE

Listening Mode parameter changes are maintained when you change listening modes. You may also save a modified Listening Mode for easy recall by saving it to a Preset (See 'A/V Presets' below under Setup Menu discussions).

PRO LOGIC IIx

PLIIx MOVIE is optimized for film soundtracks.

PLIIx MUSIC for music recordings

Center Width (0 to 7): Modifies the "hard-centeredness" of the center image, by gradually mixing mono center content to the Front left/right speakers as well. A setting of 0 retains the center-channel-only default while a setting of 7 yields a fully phantom center channel.

Dimension (-7 to +7): Adjusts front-rear emphasis of the surround effect independently from the relative channel levels.

Panorama (On/Off): Adds a "wraparound" effect by extending some stereo content into the surround channels.

NOTE

Pro Logic IIx mode will decode as Pro Logic II mode when the BACK surround speakers are set to "OFF" from "Speaker Configurations" menu. See also section about "Speaker Configurations" under "Speaker Setup" of the Setup Menu.

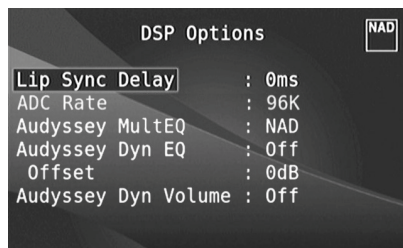
DTS NEO: 6

NEO: 6 Cinema is optimized for film soundtracks.

NEO: 6 Music for music recordings

Center Gain (0 to 0.5): Adjust for better center image in relation to the surround sound channels.

DSP OPTIONS



The following signal processing parameters can be setup under the DSP (Digital Signal Processing) Options menu.

IMPORTANT NOTICE

The M15 HD is an AV Surround Sound Preamp and therefore has no speakers. The mention of "Speaker(s)" in this manual refers to the speakers of your external amplifier as interfaced with the M15 HD.

LIP SYNC DELAY

DSP Options has the feature 'Lip Sync Delay' whose function is to match any delay that may occur in the picture relative to the audio.

By varying 'Lip Sync Delay' from 0ms to 120ms, one can delay the audio output in order to synchronize it with the video image.

ADC (ANALOG-TO-DIGITAL CONVERTER) RATE

An analog audio input is converted to digital signal by making use of M15 HD's superb circuitry called analog-to-digital converter (ADC).

Using this ADC Rate feature, the sampling rate of the resulting digital audio signal (available at the digital output ports) can be converted into three levels – 48K, 96K and 192K. Make sure that the associated equipment will be able to handle the applicable digital audio signal level.

AUDYSSEY MultEQ

Audyssey MultEQ becomes available among the DSP options only after successfully completing Audyssey Auto Calibration (accessible through the Setup Menu). Refer also to Audyssey Auto Calibration segment of the Speaker Setup under Operation – Using the M15 HD – Setup Menu.

Audyssey MultEQ can be set to the following levels

Audyssey: Audyssey developed target curve.

Flat: This setting is appropriate for very small or highly treated rooms in which the listener is seated quite close to the loudspeakers. MultEQ filters are used in the same way as the Audyssey curve, but it does not apply a high frequency roll-off.

NAD: Ideal "in room" response developed by NAD engineers along with Audyssey Engineers.

Off: MultEQ filters are not used or no measurement process at all.

NOTES

- "AUDYSSEY" and a lit green box icon are illuminated at the VFD if NAD, Audyssey or Flat is selected. If "Off" is selected, "AUDYSSEY" and the green box icon will not be illuminated.
- If NAD, Audyssey or Flat is selected and changes are done at the "Tone Controls", "Speaker Configuration", "Speaker Levels" and "Speaker Distance" settings, "AUDYSSEY" and a lit red box icon are illuminated at the VFD. Restore the parameter to its previously calibrated Audyssey setting by adjusting back the altered configuration.
- Audyssey MultEQ options can also be directly selected or changed using HTRM's AUDYSSEY button with DEVICE SELECTOR set to AMP mode. Toggle AUDYSSEY button to select "Audyssey MultEQ" and then use the [▲/▼] to select through the Audyssey MultEQ options. Press AUDYSSEY again to save the selected option and at the same time move on to the next menu setting or exit the menu setting altogether.

AUDYSSEY DYN EQ (AUDYSSEY DYNAMIC EQ)

Audyssey Dynamic EQ solves the problem of deteriorating sound quality as volume is decreased by taking into account human perception and room acoustics. By carefully combining information from incoming source levels with actual output sound levels in the room, Audyssey Dynamic EQ delivers unprecedented sound reproduction at all volume levels.

Audyssey Dynamic EQ selects the correct frequency response and surround volume levels moment-by-moment. The resulting bass response, octave-to-octave balance and surround impression remained the same despite changes in volume.

Audyssey Dynamic EQ is designed to work in conjunction with Audyssey MultEQ. Dynamic EQ determines the proper loudness compensation based on the sound pressure level measurements MultEQ provides. Audyssey Dynamic EQ working in tandem with Audyssey MultEQ provides the right listening conditions for every listener at any volume level.

On: Activate Audyssey Dynamic EQ function.

Off: Defeat Audyssey Dynamic EQ function.

NOTE

Audyssey Dynamic EQ and Audyssey Dynamic Volume (see below) can be directly selected or changed using HTRM's AUDYSSEY button with DEVICE SELECTOR set to AMP mode. Toggle AUDYSSEY button to select "Dyn EQ" or "Dyn Vol" and then use the [▲/▼] to select through their respective options. Press AUDYSSEY again to save the setting and at the same time move on to the next option or exit the menu setting altogether.

Offset: Adding a Volume Offset will have the effect of reducing the amount of boost applied by Dynamic EQ, for any given volume setting. As a consequence, the amount of overall digital attenuation required is also reduced. For example, with the Offset set to 10dB, and a volume setting of -30dB, the loudness curve selected will be for a volume level of -20dB.

The offset level can be set from 0dB to 15dB.

OPERATION

USING THE M15 HD – MAIN MENU

AUDYSSEY DYNAMIC VOLUME

Audyssey Dynamic Volume delivers consistent volume playback levels, anticipating sudden spikes and dips in volume and compensating for them in real time. Audyssey Dynamic Volume monitors the volume of program material moment-by-moment, maintaining the desired listening level for all content while optimizing the dynamic range to preserve the impact.

Audyssey Dynamic Volume includes Audyssey Dynamic EQ, which compensates for deteriorating sound quality as volume is decreased by taking into account human perception and room acoustics. These two technologies enable the full frequency response of the source at its original level to be reproduced at any listening level. Even at lower listening volumes, Dynamic Volume ensures that the richness and dynamics of the response are maintained.

Audyssey Dynamic Volume can be set to the following levels

- Light:** Provide the least adjustment to the loudest or softest sound level.
- Medium:** Setting that prevents loud and soft sound from being much louder than their respective average sound levels.
- Heavy:** Affect volume the most by causing all sound to be of equal loudness.

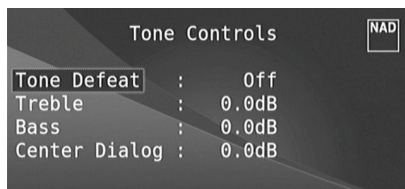
NOTE

Audyssey Dynamic EQ must be set to "On" to activate Audyssey Dynamic Volume. If Audyssey Dynamic EQ is set "Off", Audyssey Dynamic Volume will also remain "Off".

IMPORTANT NOTICE

If Audyssey Auto Calibration is not set up, the relative balance of your system's loudspeakers has to be manually adjusted (with the aid of a SPL meter) for Audyssey Dynamic Volume and Audyssey Dynamic EQ to be effective. If the speakers are not properly calibrated, the corresponding Audyssey Dynamic Volume and Audyssey Dynamic EQ responses could be distorted. Refer also to the item about "USING SPL METER" in the SPEAKER LEVELS section below.

TONE CONTROLS



The M15 HD has three Tone Control levels – Treble, Bass and Center Dialog. Bass and Treble controls only affect the low bass and high treble leaving the critical midrange frequencies free of coloration. The Center Dialog ('Dialog' in the VFD) control boosts the 'presence' of the midrange region improving intelligibility of speech.

These controls allow one to tweak on-the-fly, the frequency response of the source during playback. The control setting could be adjusted by navigating through the Tone Controls' OSD menu via a combination of [ENTER] and [▲/▼/◀/▶] keys. The same can be managed directly by pressing the front panel's TONE CONTROLS button and then rotating the VOLUME knob to select desired setting.

Maximum and minimum values for all three Tone Control levels are ± 10 dB.

'Tone Defeat' gives one the choice of varying or completely bypassing the tone control section of the M15 HD. If 'Off' ('Tone Active' in the VFD) is selected, the Tone Control circuits are active.

Select 'On' ('Tone Defeat' in the VFD) to bypass the Tone Controls effectively defeating the effect of the tone control circuits.

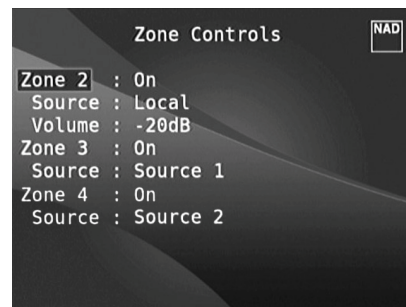
NOTE

Tone Controls options can be directly selected or changed using HTRM's TONE button with DEVICE SELECTOR set to AMP mode. Toggle TONE button to select "Treble", "Bass" or "Dialog" and then use the [▲/▼] to adjust their respective levels. Press TONE again to save the settings and at the same time move on to the next parameter or exit the parameter setting altogether.

ZONE CONTROLS



Depending on the settings made at the separate 'Zone Setup' menu under the 'Setup Menu' section discussion, the applicable Zone can be configured and managed via this 'Zone Controls' window.



Select 'On' to activate the applicable Zone. When activated, the Source input for the particular Zone can be allocated by selecting through the following inputs – All enabled Sources and Local.

Select 'Local' as your selected Zone's Source input if you wish to enjoy the same source as the main Zone and allow simultaneous listening, but with full separate volume levels.

If a Zone is set to 'Off', it is deactivated or powered off.

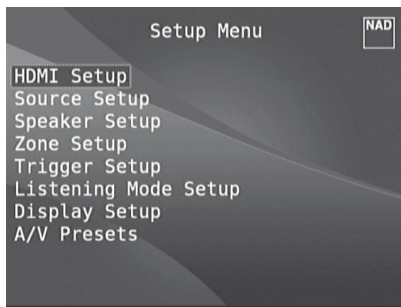
'Volume' refers to the adjustable secondary Zone 2 Volume level that can be increased or decreased using the ▲/▼ buttons of the HTRM.

When a Zone is activated, a corresponding Zone number is illuminated at the VFD. Zone 2 is always available to be configured at 'Zone Controls' menu. For Zone 3 and Zone 4 to become available at the 'Zone Controls' window, their corresponding 'Mode' in the 'Zone Setup' menu under the 'Setup Menu' section should be set to 'Zone (Audio Only)'.

NOTES

- *The ZR 5 remote control will only control Zone 2 applications. Zone 3 and Zone 4 could be configured and managed at the appropriate Zone OSD menu using the front panel navigations buttons as well as the corresponding keys on the HTRM remote control.*
- *"Zone 4" is audio only and not associated with any video input sources.*

SETUP MENU



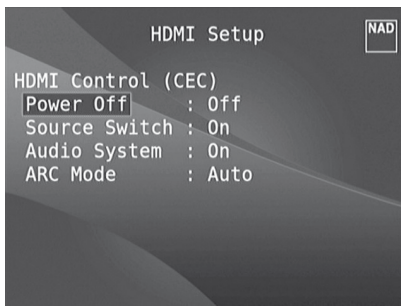
The Setup Menu allows one to customize the operation of the M15 HD to the ancillary equipment used in one's specific AV system. Unless your system exactly matches the factory defaults as shown in the accompanying Quick Start Guide, you will need to use the setup menu to configure the inputs of the M15 HD.

At Setup Menu, the following are configurable – HDMI Setup, Source Setup, Speaker Setup, Zone Setup, Trigger Setup, Listening Mode Setup, Display Setup and A/V Presets.

To access and navigate through Setup Menu and its sub-menu selections, please refer to and follow the directions stated in the sections 'Display the OSD' and 'Navigating the OSD and Making Changes.'

HDMI SETUP

The M15 HD supports HDMI Control (CEC) and Audio Return Channel (ARC) functions. Both functions are possible if external devices that also support both features are interconnected with the M15 HD via HDMI connection.



HDMI CONTROL (CEC)

Consumer Electronics Control (CEC) is a set of commands that utilizes HDMI's two-way communication to allow for single remote control of any CEC-enabled devices connected with HDMI. A CEC command will trigger the necessary commands over HDMI for an entire system to auto-configure itself to respond to the command.

When devices that support HDMI Control (CEC) are connected, the following modes of operation can be executed via the M15 HD or the external device using any of the device's remote control.

Off: Applies to all CEC options below. At "Off" setting, particular CEC feature is defeated.

On: At "On" setting, the M15 HD will automatically go to standby mode if it receives a CEC standby command. On the other hand, if the M15 HD receives a CEC power up command, the M15 HD will correspondingly switch ON from standby mode.

Source Switch: At "On" setting, the M15 HD will automatically switch sources if another CEC device requests a Source change.

For example, if PLAY is pressed on a BD Player with CEC, the M15 HD and TV with CEC will automatically switch to their respective input connections – the M15 HD switching to the HDMI input where the BD Player is connected while the TV will switch to its input where the M15 HD's HDMI MONITOR OUT is connected. This completes the auto-configuration – the BD Player is automatically played back using the M15 HD and TV.

Audio System: At "On" setting, the M15 HD will broadcast a CEC message indicating it is an active audio system. A CEC compatible TV will usually mute its audio output when this happens. When this option is enabled, the M15 HD will also respond to CEC volume and mute commands. For example, a CEC TV may forward the volume commands from its remote to the M15 HD.

ARC Mode: Audio Return Channel (ARC) enables an ARC-enabled TV to send audio data "upstream" to M15 HD.

This option has three choices: Off, Auto or Source Setup.

Auto: When set to Auto, the M15 HD will automatically attempt an ARC audio connection to the TV whenever the TV announces over CEC that it has become the active source. If an ARC connection can be established, the M15 HD will output the ARC audio signal no matter what source is selected on the M15 HD and will show "HDMI ARC" on the VFD. The Auto option tends to work best when all your devices support CEC and the Source Switch option is set to On.

Source Setup: When set to Source Setup, you can select "ARC" for the digital audio input in the source setup screen. When you select a source on the M15 HD which is set for ARC, the M15 HD will attempt to initiate an ARC connection with the TV. When using this option, you would probably also want to make sure Source Switch is off otherwise other CEC devices may keep changing the M15 HD source when you want it to remain on the ARC source.

IMPORTANT NOTES

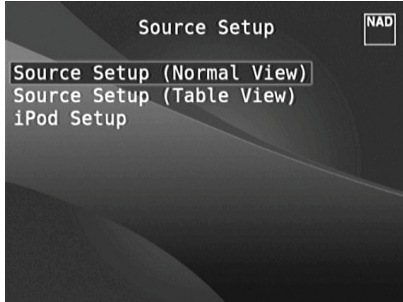
- "Audio System" must be set to "On" for "ARC mode" to manifest as an option.
- Audio and video will continuously stream from the HDMI source with CEC to the TV with CEC even if the M15 HD is at standby mode.

OPERATION

USING THE M15 HD – SETUP MENU

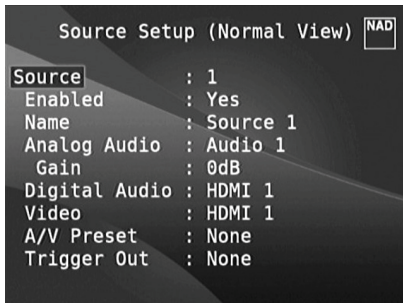
SOURCE SETUP

There are three sub-menu items under Source Setup. These are Source Setup (Normal View), Source Setup (Table View) and iPod Setup.



SOURCE SETUP (NORMAL VIEW)

The Source Setup (Normal View) menu makes it possible to set, allocate or change the following settings.



SOURCE

The M15 HD is equipped with ten configurable Sources. A particular Source can be enabled or disabled, renamed, assigned analog and digital audio sources, video sources, A/V Presets, Trigger settings among other settings.

These settings can be implemented through the following parameters.

NOTE

Source 4 is defaulted to iPod. Change the default setting of Source 4 to iPod via the following procedure

- 1 Go to "iPod Setup" menu under the "Source Setup" menu. At "iPod Setup" menu, set "Enabled" to "No".
- 2 Then, go back to "Source Setup" menu and select "Source Setup (Normal View)".
- 3 Go to Source 4 and set "Enabled" to "Yes".
Source 4 can now be configured to any desired settings.

ENABLED

One can enable/disable a Source via this option. This is particularly useful if only few Sources are used and one directly selects the Source from the front panel, bypassing unused sources.

Select "Yes" to enable the particular Source or "No" to disable the Source.

NAME

A new Name maybe assigned to a Source label. For example, if your BD player is attached to "Source 1", it is possible to rename "Source 1" to "BD".

In order to rename the Source label, scroll to the "Name" parameter. Press [D] to go to the first character. Then, press [▲/▼] to pick through the alphanumeric selections.

Press [D] to move to the next character and at the same time save the changes done on the current character. The name can be as long as twelve characters.

The new Name will be shown in the VFD as well as on the OSD.

ANALOG AUDIO

The M15 HD has eight analog audio inputs including 7.1 input. These analog inputs - Audio 1 - 7 and 7.1 Input can be variably assigned to each Source.

Scroll to "Analog Audio", press [D] and then [▲/▼] to select and assign an analog audio input to the particular Source. There are three choices – Audio, 7.1 Input or Off.

When "Audio" is chosen, press [D] and then [▲/▼] to select and assign the desired audio input – 1 to 7.

Select "7.1 Input" to choose the audio signal fed to "7.1 Channel Input".

If "Off" is selected, no incoming analog audio signal is selected by the particular Source. Note that when "Analog Audio" is set to "Off", "Gain" will not be enabled as an option.

NOTE

An incoming digital signal present at the assigned digital input will always take precedence over the assigned analog audio input, even if both are present. To maintain the analog audio input for the particular Source, select "Off" at the "Digital Audio" setting of the same "Source" menu.

GAIN

Gain adjustment allows all sources to play back at the same volume level so you don't need to adjust the volume every time a new source is selected. It is generally preferable to reduce the level of the loudest source rather than making louder the softer sources.

Scroll to "Gain", press [D] and then [▲/▼] to step through the desired level from -12dB to 12dB.

Note that when "Analog Audio" is set to "Off", "Gain" will not be enabled as an option.

DIGITAL AUDIO

To take advantage of the M15 HD's high performance surround and digital audio circuitry, it is advisable that its sets of Digital Audio input are selected.

There are three types of Digital Audio input for the M15 HD. These are HDMI, Optical and Coaxial digital input. A fourth option is "Off" whereby no incoming digital audio signal is selected by the particular Source.

The desired digital audio input for a particular Source can be selected by scrolling to "Digital Audio", press [D] and then [▲/▼] to step through the desired digital input source. After finalizing the desired type of Digital Audio input, press [D] and then [▲/▼] again to select the specific Digital Audio input.

The following are the sets of assignable Digital Audio input:

HDMI → HDMI 1 - 6

Optical → Optical 1 - 4

Coaxial → Coaxial 1 - 4

NOTE

An incoming digital signal present at the assigned digital input will always take precedence over the assigned analog audio input, even if both are present. To maintain the analog audio input for the particular Source, select "Off" at the "Digital Audio" setting of the same "Source" menu.

VIDEO

There are four types of video input a particular Source could be assigned. These are HDMI, Component, S-Video and Video input. Another option is "Off". Select "Off" if it is intended not to assign any video input to a particular Source.

Navigate through the Video input selections by pressing [D] and then [▲/▼] to step through the selections. The following are the sets of assignable Video input.

HDMI → HDMI 1 - 6

Component Video → Component 1 - 3

S-Video → S-Video 1 - 4

Video → Video 1 - 4

IMPORTANT NOTE ABOUT THE VIDEO PERFORMANCE OF M15 HD

The M15 HD utilizes an NAD-engineered field-programmable gate array (FPGA) that is capable of enabling the conversion of analog video to digital video. This allows a single cable connection to your TV for all sources while maintaining the source's native resolution. Interlaced video is converted to progressive scan over HDMI allowing complete compatibility with latest HD TVs.

The M15 HD also supports HDMI 1.4a features that include compatibility with a broad range of 3D and HD digital video sources and displays.

A/V PRESET

A particular Source can be assigned a stored Preset. The parameters set up in the selected Preset number will be adopted into the particular Source it is assigned (Please refer to the separate section on "A/V Presets" for further understanding of Preset settings).

Scrolling to "A/V Preset" and by pressing [D] and then [▲/▼], a Source could be assigned a Preset number ranging from Preset 1 to 5.

If it is desired not to assign the particular Source a Preset setting, select "None".

TRIGGER OUT

Trigger Out feature for a particular Source is dependent upon the configurations done in a separate menu on Trigger Setup (See "Trigger Setup" below). If "Source Setup" is assigned to all three Trigger output (Trigger Out 1-3) in the separate "Trigger Setup" menu window, a particular Source can have the following Trigger Out combinations

Trigger Out: 1 → 2 → 1 + 2 → 3 → 1 + 3 → 2 + 3 → 1+2+ 3

These combinations are dependent upon the assignment of "Source Setup" for Trigger 1 Out, Trigger 2 Out or Trigger 3 Out at the "Trigger Setup" menu.

Another option is "None" whereby the particular Source is not assigned any Trigger Out.

For "Trigger Out" to become enabled and assignable at "Source Setup (Normal View)" menu, make sure to carry out or note the following beforehand

- In the separate "Trigger Setup" menu, assign Trigger 1 Out, Trigger 2 Out or Trigger 3 Out to "Source Setup."
- "Trigger Out" will not appear as an option at the Source Setup (Normal View) menu if at the separate "Trigger Setup" menu, Trigger 1 Out, Trigger 2 Out or Trigger 3 Out are all assigned to "Main, Zone 2, Zone 3, Zone 4, Zone 2+3+4, Main + Zone 2, Main + Zone 3, Main + Zone 4 or Main + Zone 234"; with not even one "Trigger Out" port allocated to "Source Setup."

SOURCE SETUP (TABLE VIEW)

The Source Setup (Table View) reflects the settings made in the Source Setup (Normal View) menu. All the Source settings are summarized and displayed in tabulated form in the Source Setup (Table View).

Audio	Vid	P	Trg	Name
1 A1	H1	H1	- - -	Source 1
2 A2	O2	C2	- - -	Source 2
3 A3	C3	V3	- - -	Source 3
4 A4		S4	- - -	iPod
5 A5	O1	C1	- - -	Source 5
6 A6	C2	S2	- - -	Source 6
7 71	- -	C3	- - -	Source 7
8 A7	- -	V1	- - -	Source 8
9 - -	H2	H2	- - -	Source 9

(Press ENTER to Disable)

Navigating through the Source Setup (Table View) via a combination of [D] and then [▲/▼] buttons, one will have the benefit of directly changing the settings for "Audio," "Video," "Preset" and "Name" without going back to the Source Setup (Normal View) menu.

Highlight a particular Source number and then, toggle [ENTER] button to enable or disable said Source number.

OPERATION

USING THE M15 HD – SETUP MENU

iPod SETUP



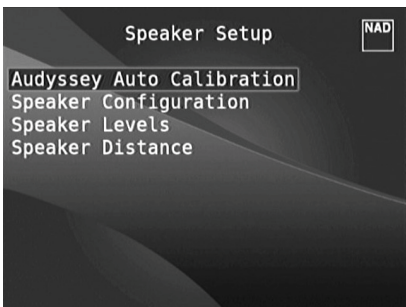
The iPod Setup menu allows you to preset the following associated settings when iPod is the selected source.

Enabled: Select “Yes” to enable iPod as a Source or “No” to disable it.

Auto Connect: Select “Yes” to automatically enable and connect the iPod player docked in the linked NAD iPod docking station when Source 4 (the default iPod source allocation in the M15 HD) is selected. Select “No” if you do not want a docked iPod to be automatically connected.

Menu Timeout: Set the time for the OSD to revert to the “Now Playing” display when the iPod menu has been left idle (no scrolling or navigation being done) for the specified time out time. For the “Now Playing” OSD to be shown, there should be a song paused or being played before going to the iPod menu. You can set the “Menu Timeout” between the range 5s to 60s at 5s increments. If you do not want for the menu to timeout, select “Off”.

SPEAKER SETUP



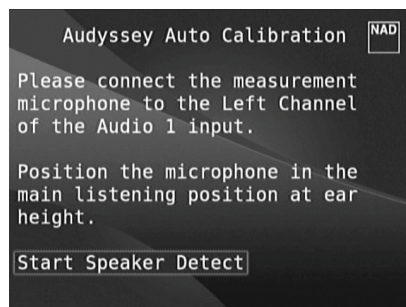
After connecting all ancillary sources and other combinations, the Speaker Setup menu will guide you on how to manage and setup your speakers in order to achieve optimum sound acoustics in your listening environment.

The following are the Speaker Setup Menu sections.

IMPORTANT NOTICE

The M15 HD is an AV Surround Sound Preamplifier and therefore has no speakers. The mention of “Speaker(s)” in this manual refers to the speakers of your external amplifier as interfaced with the M15 HD.

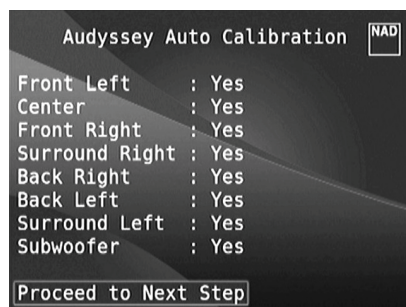
AUDYSSEY AUTO CALIBRATION



It has been shown that many, if not most, surround sound systems are not accurately setup and calibrated. To be done properly, calibration requires special knowledge and instrumentation that the average person probably doesn't possess.

The Audyssey Auto Setup and Calibration featured in M15 HD uses a microphone, along with sophisticated digital electronics built into your M15 HD, to automatically setup and calibrate the M15 HD to the exact speakers and speaker placement of your own unique Home Theatre.

The Left Channel of AUDIO 1 IN is the assigned port where the supplied 3.5mm female jack to RCA plug Adapter can be connected. Plug in the Audyssey microphone into the adapter for Audyssey Auto Calibration.



The following measurements are performed:

- **Detection :** Speaker configuration is detected including number of surround speakers and whether a subwoofer and center channel is connected.
- **Size :** M15 HD crossover is set based on each channel's signal handling capability and the subwoofer crossover is automatically set.
- **Level :** SPL of each speaker is matched within 1dB at the microphone position.
- **Distance :** is accurately set to within 1 foot (30 centimeters) of the microphone for each speaker position.
- **Polarity :** the setup program will detect and notify the user if any speakers are connected improperly. Incorrect polarity can ruin the illusion of realism offered by surround sound.

This is a one-time set up, unless speakers are moved or changed, in which case the calibration should be performed again.

AUDYSSEY MultEQ XT ROOM ACOUSTICS CORRECTION

Sound reflecting from room boundaries can disturb the spatial illusion of surround sound, and can also distort the tonal balance of the system. Professional Acoustical Engineers often add wall treatments and even move walls and relocate speakers to improve system performance, but for the average Home Theatre, this is either too expensive or just not a practical solution.

Audyssey MultEQ XT, using multiple measurements from the actual listening positions, and processing this information using very sophisticated digital signal processing, is able to “precondition” the signal to effectively make the walls disappear. This creates a ‘family size’ sweet spot where the sound and spatial cues are very accurately reproduced.

MultEQ XT is designed to tame room acoustics without changing the sonic character of your loudspeakers. While it will make the most of whatever loudspeakers you have, it will not make poor speakers sound like good ones!

Connect the Audyssey microphone jack into the front panel's MP/MIC input and the Audyssey Auto Calibration wizard will guide you through a simple step-by-step configuration. Once setup and calibrated, the next greatest improvement in performance is obtained by eliminating the acoustic interference caused by room boundaries interacting with your speakers.

MEASUREMENT IS THE FIRST STEP

The sound at each listening position (up to 8 positions) is calibrated using the same microphone used during the setup phase.

A special test tone is sent to each speaker and the data is memorized by the M15 HD. The duration of calibration may take some time depending on the number of speakers as well as the number of measuring points. After all positions are measured, the DSP calculates the ideal system response for your particular room and speaker setup.

If some inconsistencies or discrepancies are detected during the Audyssey calibration, the process may be interrupted or the problem is shown in the particular setup window. A notice screen is correspondingly displayed. After following and undertaking the displayed instructions, re-start the Audyssey calibration again. When the measurements are finalized, Audyssey calculates the ideal system response for your particular room and speaker setup.

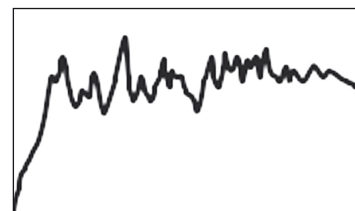
NOTE

The test tone emitted during measurement is loud. If you cannot withstand the test tone level, it is advisable that you stay away from the room or location where the speakers are being calibrated. Return to the room or location after each calibration to change the microphone's position or to finalize the calibration.

NEXT A TARGET CURVE MUST BE CHOSEN

Because loudspeaker designers assume that their products will be used in typical domestic rooms, they are ‘voiced’ to work in this environment. It is assumed that the room will add some bass reinforcement and will absorb some treble energy. Thus if we effectively ‘remove the walls with room correction, and set the speakers for flat response, you may find this sounds too bright in the treble and too weak in the bass region.

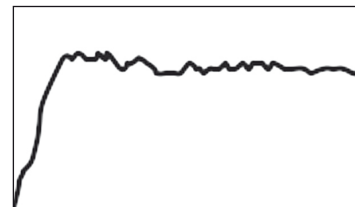
NAD engineers have done extensive research in this area of room acoustics, and along with Audyssey engineers developed what we believe is the ideal ‘in room’ response curve. We include this NAD EQ, along with an Audyssey developed EQ as the two best choices. The response curves shown below typify NAD EQ room correction process.



Room Response measured by Audyssey microphone



Inverse Correction Filter calculated by NAD M15 HD



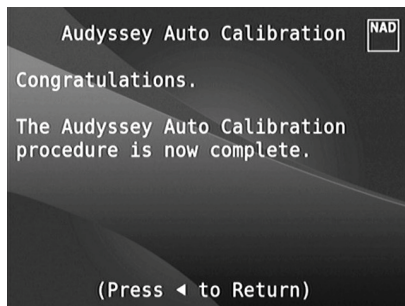
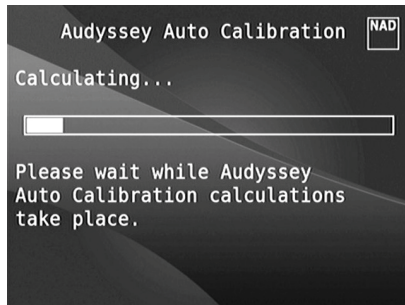
Corrected Room Response

Flat EQ is a third option, but not one that we recommend for listening (it is useful for verifying system performance when using external instrumentation).

OPERATION

USING THE M15 HD – SETUP MENU

Select the Target Curve you find to be most satisfactory by pressing the Audyssey key of the remote. The MultEQ XT corrected response can also be bypassed if you wish.

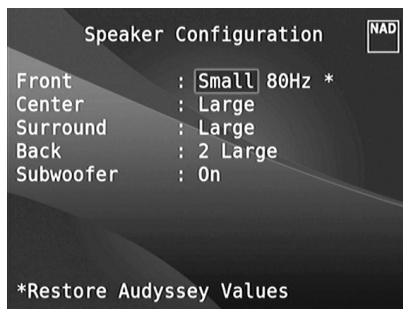


It is recommended that you take full advantage of the M15 HD's Audyssey Auto Calibration feature for your speaker setup. However, if you desire to setup your speakers manually or if you already had run Audyssey Auto Calibration but would like to make adjustments, the following sections on Speaker Configuration, Speaker Levels and Speaker Distance can also be followed and implemented.

NOTE

During manual setting of your speakers, previously calibrated Audyssey settings could be retrieved by re-adjusting back the altered configurations as highlighted by an asterisk.

SPEAKER CONFIGURATION



Every surround-sound 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 “Small” and “Large” (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, that is, below about 200 Hz.
- A “Large” speaker is any full-range model; that is, one with deep-bass response
- An “Off” speaker is one that is not present in your system. For example, you might not have any surround-back speakers installed; in that case, you would set the ‘Surround’ setup item to “Off”.

The Speaker Configuration is “global”; that is, it remains in force with all input and listening modes. However, speaker settings are part of the M15 HD’s Preset system. Consequently, multiple speaker settings can be stored for easy recall as different types of recordings or listening modes require.

Speaker Configuration can be managed and adjusted by pressing a combination of [D] and then [▲/▼] keys. Set “Front”, “Center” and “Surround” to “Large”, “Small” (40Hz to 200Hz) or “Off” as your subsystem’s speakers require.

The “Back” speakers can either be one or two speakers. Set “Back” to either 1 or 2 speakers as per availability. Set “Subwoofer” to “On” or “Off” selecting “On” only if you have a subwoofer connected to the M15 HD’s SUBW1 or SUBW2 output jack. If “Subwoofer” is set to “Off”, “Front” speakers will automatically be set to “Large”.

ENHANCED BASS

When the subwoofer is set to “On” and “Front” is set to “Large”, the option “Enhanced Bass” becomes available. Normally, with 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 which case bass content from any channels set to “Small” will be routed to both the subwoofer and to the front speakers; LFE-channel signal will pass only to the sub. In most subwoofer-equipped systems, setting front speakers to “Small” is usually the better option.

All the speakers’ low frequency content can be directly adjusted within the range 40Hz to 200Hz.

NOTE

The configurations set forth at ‘Speaker Setup’ are carried over whenever it is enabled during A/V Preset setting. Please see also the section ‘AV Presets’ for reference.

SPEAKER LEVELS



Adjusting the relative balance of your system’s loudspeakers ensures that surround-sound 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 other speakers, and thus of low-frequencies (bass) to other sonic elements.

USING AN SPL METER

It is quite practical to perform the M15 HD level setup routines “by ear,” and careful work will produce acceptably accurate results. However, the use of an inexpensive sound-pressure level (SPL) meter, such as Radio Shack part number 33-2050, makes this task easier, more accurate and more repeatable. Ownership of such a meter could prove a valuable audio tool.

OPERATION

USING THE M15 HD – SETUP MENU

The SPL meter should be placed at the primary listening position, at approximately the height of the seated listener's head. A tripod is helpful but with a little duct tape almost anything — a pole lamp, music-stand, or ladder-backed chair, for example — can do as well. Just be sure that no large acoustically reflective surfaces obstruct or are near the microphone element.

Orient the meter with its microphone (usually at one end) pointing straight up toward the ceiling (not toward the speakers) and ensure that "C" weighting scale is selected. Set the meter to display 75 dB SPL. On Radio Shack meters, this necessitates either setting the meter to its 80 dB range and taking your readings at the -5 point or selecting the 70 dB range and reading at the +5 point.

SETTING SPEAKER LEVELS AT TEST MODE

While at 'Speaker Levels' menu, press the HTRM remote's [TEST] key activating the M15 HD's Speaker Levels balancing test signal. You will hear a "surf" sound as you step through your speakers ('test' appears to the right side of the current speaker), beginning with the Front Left. If you do not hear the test signal, check your speaker connections or your 'Speaker Setup' OSD menu settings.

Use the remote's [▲/▼] keys to adjust the loudness of the noise output from the currently playing channel to the required level (it's usually simplest to begin with the Front Left). As you cycle the test signal around the speakers, the OSD will highlight the currently playing channel. The "level offset" reading on the right will change by 1 dB increments; ±12 dB adjustment is available. Press 'ENTER' to adjust the next speaker.

NOTE

If you are balancing levels "by ear", choose one speaker—usually the center—as a reference and adjust each of the others in turn to "sound as loud" as the reference. Be sure that you remain in the primary listening position while balancing all channels.

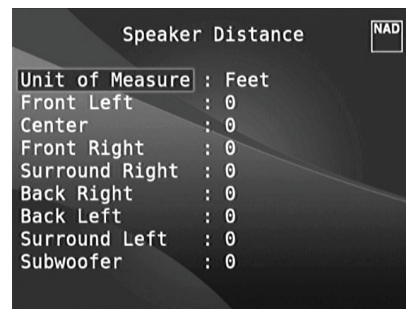
To produce the same SPL meter reading (or subjective loudness), use the remote's [▲/▼] keys to adjust each speaker.

NOTES

- All speakers must be in their final locations before level-setting.
- Your subwoofer (if any) should be set with its integral crossover defeated, or if undefeatable, set to its highest-possible frequency if you are using the M15 HD's Subwoofer output. Final subwoofer-level adjustment "by-ear," using music and film sound material, is frequently useful.
- Due to the effects of room acoustics, matched-pair speakers (front; surround; back) will not always calibrate to exactly the same level offset readings.

You can exit 'Test' mode at any time by pressing [⏪] key, bringing you back to 'Speaker Setup' menu. You can also press the [TEST] key to discontinue the 'Test' mode.

SPEAKER DISTANCE

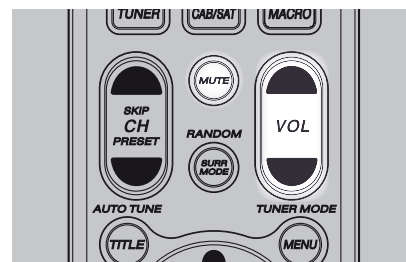


Your system's speaker distance settings are a subtle but important refinement of your setup. Informing the M15 HD of the loudspeaker-to-listener dimensions of each speaker automatically imposes the correct delays, optimizing imaging, intelligibility and surround-sound ambience. Enter your dimensions with precision within about 1 foot (30 cm).

SETTING SPEAKER DISTANCE

While at 'Speaker Distance' menu, use the [▲/▼] keys to individually set Front Left, Center, Front Right, Surround Right, Back Right, Back Left, Surround Left and Subwoofer to the distance measuring from your principal listening position to the front surface of their corresponding loudspeakers. Distance can be set up to 30 feet or 9.1 meters. Distance can be displayed as feet or meters selectable at the 'Unit of Measure' item.

ADJUSTING THE VOLUME



In addition to the Volume knob, use the HTRM's [VOL ▲/▼] to adjust the "master volume" of the M15 HD 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.

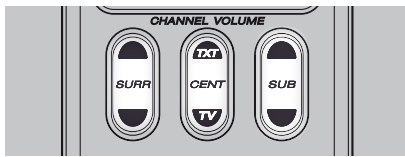
The M15 HD will power-up from Standby mode at whatever master volume setting was last used; however, if the prior setting was greater than -20 dB, the M15 HD will power up at -20 dB. This prevents inadvertently beginning a session at excessive volume.

MUTING THE SOUND

Use the HTRM's [MUTE] key to silence all channels completely. Muting is always available regardless of the source or listening mode selections.

NOTES

- Changing input or listening-mode selections does not release muting.
- Adjusting the volume level via the HTRM or the front panel volume knob will automatically release the mute function.

ADJUSTING CHANNEL LEVELS 'ON THE FLY'

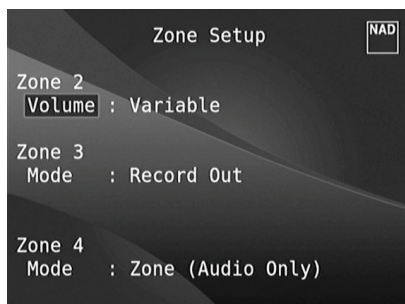
You can make changes to the relative levels of center, surround and subwoofer outputs without having to go into the 'Speaker Levels' menu. This is very convenient in circumstances like increasing (or tone down) a film's dialog level by raising (lowering) the center channel or reducing excessive deep bass (or enhance deep bass) by lowering (raising) the subwoofer level.

Use the HTRM's 'SURR', 'CENT' and 'SUB' keys for direct-access level adjustment of these channels over a range of ± 6 dB.

The surround back channels (if any) adjust in lockstep with the surround channels.

NOTE

Level settings adjusted 'On the Fly' are added or subtracted to the setup levels established at the M15 HD level-calibration routine as invoked by the HTRM 'Test' key. However, selecting any Preset will revert the channel levels to those stored in the preset. It will also take M15 HD off the levels set via Audyssey Auto Calibration.

ZONE SETUP

The Zone feature allows one to simultaneously experience in different zones of the house multiple sound sources from all enabled Sources as well as from Front Input, Media Player and Tuner.

The M15 HD has three configurable Zones – Zone 2, Zone 3 and Zone 4. Use a combination of [◀/▶/▲/▼] and [ENTER] keys to navigate through the Zone Setup menu parameters.

VOLUME

Zone 2 have Fixed and Variable volume control. When set to 'Variable' and while at the 'Zone Controls' menu OSD, the Zone 2 Volume level can be adjusted using the HTRM's [▲/▼] or directly via ZR 5's [VOL ▲/▼].

On the other hand, if Volume is set to 'Fixed', the Zone 2 Volume is set to a preset dB level and thereafter the Zone's volume can be varied via the volume control of the separate amplifier it is fed into.

MODE

Zone 3 and Zone 4 can be configured into two modes - Record Out and Zone (Audio Only). If the selected mode is "Record out", the audio of the assigned Source is directly sent out to the applicable Audio output (See Item 1 AUDIO 1-7 IN/VIDEO 1-4 IN/S-VIDEO 1-4 IN). When Zone 3 or Zone 4 is set to "Record Out" mode, they will not be available at the "Zone Controls" section of the Main Menu window.

See discussion also on 'Zone Controls' at the Main Menu.

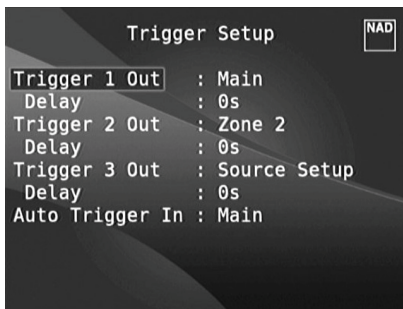
NOTE

The ZR 5 remote control will only control Zone 2 applications.

OPERATION

USING THE M15 HD – SETUP MENU

TRIGGER SETUP



The M15 HD features three configurable +12V DC Trigger Output that can be used to activate a component or system it is fed into. A Trigger Input is also available to turn on the applicable link it is associated to. Use a combination of [◀/▶/▲/▼] and [ENTER] keys to navigate through the Trigger Setup menu parameters.

TRIGGER OUT

Triggers are low voltage signals used to turn on/off other compliant devices. The M15 HD's three +12V DC Trigger Outputs (Trigger 1 Out, Trigger 2 Out and Trigger 3 Out) are dependent upon the mode they are associated with. There are six choices where +12V DC output can be assigned and these are – Main, Zone 2, Zone 3, Zone 4, Zone 2+3+4 and Source Setup.

Main : +12V DC is available at the assigned Trigger Out when the M15 HD is at powered state.

Zone 2, Zone 3, Zone 4, Zone 2+3+4 : When the applicable Zone is at powered state, +12V DC is available at the assigned Trigger Out.

Source Setup : If Trigger Output is linked to 'Source Setup', +12V DC is available at Trigger Out whenever the particularly assigned Source is selected. Please see also separate discussion about 'Trigger Out' under the Source Setup (Normal View) section.

DELAY

The availability of +12V DC at Trigger Out can be regulated. If it is desired that +12V DC is available without delay the moment Trigger Out is linked to its assigned setting, set Delay to 0s. Otherwise, one can select through a delay time of 1s to 15s.

AUTO TRIGGER IN

Auto Trigger IN allows external system controllers to toggle the associated section of the M15 HD from "Standby" to "On" and vice versa. When the +12V TRIGGER IN switch at the rear panel is set to AUTO, a +12V DC input at Trigger IN will power ON the section where Trigger IN is assigned.

Main : From standby mode, the M15 HD is powered ON when +12V DC is applied at Trigger IN.

Zone 2, Zone 3, Zone 4 : Applicable Zone is turned ON whenever +12V DC is present at Trigger IN.

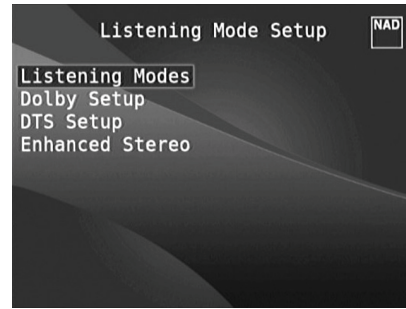
All : Main, Zone 2, Zone 3 and Zone 4 as described above will all be activated given a +12V DC input at Trigger IN.

WARNING

If "Auto Trigger In" at Trigger Setup menu is assigned to "Main" or "All" and the +12V TRIGGER IN switch is set to "AUTO" mode, the standby button in the front panel as well as the corresponding ON/OFF function keys in the HTRM remote control will be disabled effectively handling this function to an external controller. Slide to "OFF" the +12V TRIGGER IN switch to maintain normal power ON/OFF function procedures.

See also 'Item 8. +12V TRIGGER OUT, +12V TRIGGER IN of REAR PANEL discussion as well as the 'Trigger Out' discussion under 'Source Setup (Normal View).'

LISTENING MODE SETUP



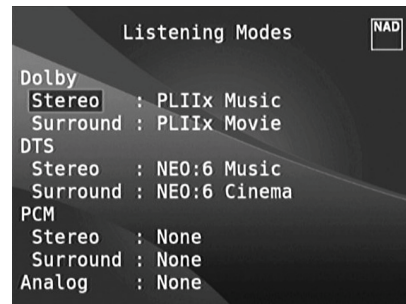
The M15 HD has various listening mode options and is mostly configurable. These are provided to reproduce a variety of sound effects depending upon the content of the source to be played. Use a combination of [◀/▶/▲/▼] and [ENTER] keys to configure the following settings.

LISTENING MODES

The audio format as detected by the selected Source can be automatically configured and processed through the following options:

DOLBY

Dolby Digital is the multi-channel digital signal format developed in the Dolby laboratories. Discs bearing the Dolby Digital (double-D symbol) logo 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.



A Dolby Digital audio input can be configured relative to its format as follows

Stereo: If the detected audio is of Dolby stereo format, you can default it to one of the following settings – Pro Logic, PLIIx Movie, PLIIx Music or None.

Surround: If the detected audio is of Dolby Surround format, you can default it to one of the following settings – Surround EX, PLIIx Movie, and PLIIx Music, Stereo Downmix or None.

None: If 'None' is selected, the Dolby Digital signal will be defaulted to the 'Stereo' or 'Surround' settings set forth at the 'PCM' option. See discussion below about 'PCM'.

DOLBY DIGITAL PLUS

Dolby Digital Plus is the next-generation audio technology for all high-definition programming and media. It combines the efficiency to meet future broadcast demands with the power and flexibility to realize the full audio potential expected in the upcoming high-definition era.

Dolby Digital Plus delivers multi-channel audio programs of up to 7.1 channels and supports multiple programs in a single encoded bitstream with the maximum bit rate potential of up to 6 Mbps and the maximum bit rate performance of up to 3 Mbps on HD DVD and 1.7 Mbps on Blu-ray Disc. It outputs Dolby Digital bitstreams for playback on existing Dolby Digital systems. Dolby Digital Plus can accurately reproduce the sound originally intended by directors and producers.

It also features multi-channel sound with discrete channel output, interactive mixing and streaming capability in advanced systems. Supported by High-Definition Media Interface (HDMI), a single-cable digital connection is possible for high-definition audio and video.

DOLBY TrueHD

Dolby TrueHD is a lossless encoding technology developed for high-definition optical discs in the upcoming era. Dolby TrueHD delivers tantalizing sound that is bit-for-bit identical to the studio master, unlocking the true high-definition entertainment experience on high-definition optical discs in the next generation. When coupled with high-definition video, Dolby TrueHD offers an unprecedented home theater experience with stunning sound and high-definition picture.

It supports bit rates of up to 18 Mbps and records up to 8 full-range channels individually with 24-bit/96 kHz audio. It also features extensive metadata including dialogue normalization and dynamic range control. Supported by High-Definition Media Interface (HDMI), a single-cable digital connection is possible for high-definition audio and video. HD DVD and Blu-ray Disc standards currently limit their maximum number of audio channels to eight, whereas Dolby Digital Plus and Dolby TrueHD support more than eight audio channels. Note that the M15 HD only supports 7.1 channel.

DOLBY DIGITAL EX

Using a Matrix decoder, this method creates the back channel (sometimes also called the "surround center") by means of signals on the left and right surround channels recorded in Dolby Digital 5.1, reproduction being provided in Surround 6.1. This method should be selected with sources bearing the "Dolby Digital (double-D symbol)-EX" symbol, recorded in Dolby Digital Surround EX.

With this additional channel you will experience improved dynamics and a better sensation of movement within the sound field. If media sources recorded in Dolby Digital EX are decoded with a Digital EX decoder, the format is detected automatically, and the Dolby Digital EX mode is selected. However, some media sources recorded in Dolby Digital EX can be detected as simple Dolby Digital media sources. In this case Dolby Digital EX should be selected manually.

NOTE

Please refer to the section 'Listening Mode' at the Main Menu discussions for a description of Pro Logic, PLIIx Movie, PLIIx Music and Stereo Downmix modes.

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.

A DTS audio input can be configured relative to its format as follows

Stereo: If the detected audio is of DTS format, you can default it to one of the following settings – NEO:6 Cinema, NEO:6 Music or None.

Surround: If the detected audio is of DTS Surround format, you can default it to one of the following settings – NEO:6 Cinema, NEO:6 Music, Stereo Downmix or None.

None: If 'None' is selected, the DTS signal will be defaulted to the 'Stereo' or 'Surround' settings set forth at the 'PCM' option. See discussion below about 'PCM'.

NOTE

Please refer to the section 'Listening Mode' at the Main Menu discussions for a description of Stereo Downmix and DTS Neo:6 surround modes.

PCM

PCM (Pulse Code Modulation) is the digital representation of a standard audio signal converted with little or no compression. If 'None' is selected for any of the Dolby or DTS settings, this 'PCM' section will default the audio signal as follows

Stereo: The detected stereo audio format will be configured into one of the following options – Pro Logic, PLIIx Movie, PLIIx Music, NEO:6 Cinema, NEO:6 Music, EARS, Enhanced Stereo or None.

Surround: The detected surround audio format will be configured into one of the following options – PLIIx Movie, PLIIx Music, NEO:6 Music, NEO:6 Cinema, Stereo Downmix or None.

ANALOG

If the audio input is an analog signal, the following are the surround modes the input can be defaulted – Pro Logic, PLIIx Movie, PLIIx Music, NEO:6 Cinema, NEO:6 Music, EARS, Enhanced Stereo, Analog Bypass and None.

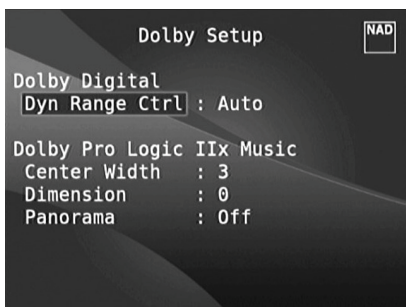
NOTE

All these Listening Modes for 'Dolby Digital,' DTS' 'PCM and 'Analog' can be directly changed by pressing the 'Listening Mode' button on the front panel or through the 'Listening Mode' option at the Main Menu window. The chosen audio format will be reflected back to the appropriate setting at the 'Listening Mode Setup.'

OPERATION

USING THE M15 HD – SETUP MENU

DOLBY SETUP



Under this menu, the Dolby Digital's Dynamic Range Control can be adjusted as well as the settings for Dolby Digital Pro Logic IIx Music.

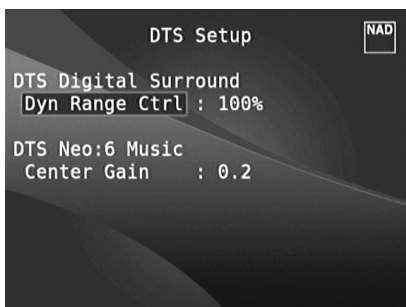
Dyn Range Ctrl: You can select the effective dynamic range (subjective range from soft to loud) for playback of Dolby Digital soundtracks. For fully cinematic effect, always select 100%, the default. Settings of 75%, 50%, and 25% progressively reduce dynamic range, making soft sounds comparatively louder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

The 25% setting will yield the least dynamic range and is best for late-night sessions or other times when you wish to retain maximum dialog intelligibility while minimizing overall volume levels.

For Dolby TrueHD sources, set the Dynamic Range Control to "Auto".

Dolby Pro Logic IIx Music: Please refer to the same description of 'PLIIx Music' under the 'ADJUSTING LISTENING MODES' segment of the 'OPERATION - USING THE M15 HD - MAIN MENU'.

DTS SETUP



Under this menu, the Dynamic Range Control of DTS Digital Surround can be adjusted as well as the settings for DTS Neo: 6 Music.

Dyn Range Ctrl: This is the same configurable Dynamic Range Control feature as described above at Dolby Setup, the only difference being the soundtrack is now in DTS format.

DTS Neo: 6 Music: Please refer to the same description of 'NEO 6: Music' under the 'ADJUSTING LISTENING MODES' segment of the 'OPERATION - USING THE M15 HD - MAIN MENU'.

DTS SURROUND MODES

The following are further descriptions about the DTS surround modes.

DTS-HD MASTER AUDIO

DTS-HD Master Audio is a technology that delivers master audio sources recorded in a professional studio to listeners without any loss of data, preserving audio quality. DTS-HD Master Audio adopts variable data transfer rates, facilitating data transfer to the maximum rate of 24.5 Mbps in the Blu-ray disc format, 18.0 Mbps in the HD-DVD format, which by far exceeds that of a standard DVD. These high data transfer rates enable lossless transmission of 96 kHz/24-bit 7.1-channel audio sources without deteriorating the quality of the original sound. DTS-HD Master Audio is an irreplaceable technology that can reproduce sound faithfully as intended by the creator of music or movies.

DTS - ES EXTENDED SURROUND™ (DTS ES)

This is a new multi-channel digital format which greatly improves the 360° spatial sensation of the Surround impression thanks to the greater space expansion of the surround signals, providing high compatibility with the conventional DTS format.

In addition to the 5.1 channels, the expanded DTS-ES Surround also offers the back surround (also sometimes called the "surround centre") in reproduction, providing a total of 6.1 channels. The expanded DTS-ES Surround includes two formats, with two different methods of surround signal recording, as follows:

DTS-ES™ DISCRETE 6.1

Since the signals of the 6.1 Surround channels (including the back channel) are completely independent, it is possible to achieve the sensation that the acoustic image is moving about freely among the background sounds, 360 degrees surrounding the listener.

Although maximum quality is achieved with sound tracks recorded using this system and reproduced using the DTS-ES decoder, when played with a conventional DTS decoder, the back surround channel is automatically downmixed in the surround right and surround left channels of the surround system, in such a way that none of the signal components are lost.

DTS - ES™ MATRIX 6.1

In this format, the additional signals of the back channel receive a matrix encoding and are inputted into the right and left surround channels. During reproduction they are decoded to the right, left and back surround channels.

Since this bit-stream format is 100% compatible with conventional DTS signals, the DTS-ES Matrix 6.1 format effect can also be achieved from sources with DTS-ES 5.1 signals.

Naturally, it is also possible to reproduce from a DTS 5.1 channel decoder, signals recorded in DTS-ES 6.1.

When a DTS-ES decoder processes a discrete DTS-ES 6.1 or in Matrix 6.1, these formats are automatically detected and the Optimum Surround mode is selected. However, some DTS-ES Matrix 6.1 sources may be detected as DTS. In this case the DTS-ES Matrix mode should be selected manually in order to reproduce them.

DTS NEO: 6™ SURROUND

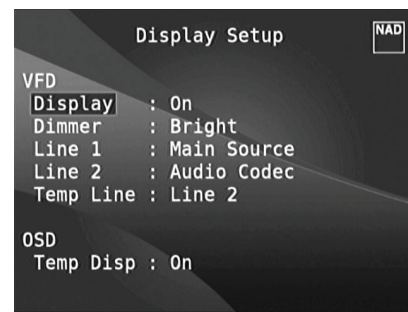
This mode applies the conventional 2-channel signals such as digital PCM or analog stereo signals to the high precision digital matrix decoder used for DTS-ES Matrix 6.1 to achieve 6.1-channel surround playback. DTS Neo: 6 surround includes two modes for selecting the optimum decoding of the signal sources:

DTS NEO: 6 CINEMA : This method is ideal for the reproduction of movies. The decoding takes place by emphasizing the separation in order to achieve the same atmosphere with 2-channel, as with 6.1-channel sources.

DTS NEO: 6 MUSIC : Mainly recommended for music reproduction. The right and left front channels do not pass through the decoder and are reproduced directly so there is no loss in sound quality, and the effects of the right surround, left surround, central and back surround channels add a natural sensation of expansion of the sound field.

ENHANCED STEREO

Please refer to the same description of 'ENHANCED STEREO' under the 'LISTENING MODES' segment of the 'OPERATION - USING THE M15 HD - MAIN MENU'.

DISPLAY SETUP

The Vacuum Fluorescent Display (VFD) and On-Screen Display (OSD) can be shown in various ways by navigating through the parameters at the 'Display Setup' menu. Use a combination of [◀/▶/▲/▼] and [ENTER] keys to step through the 'Display Setup' menu items.

NOTE

The configurations set forth at 'Display Setup' are carried over whenever it is enabled during A/V Preset setting. Please see also the section below about 'AV Presets.'

VACUUM FLUORESCENT DISPLAY (VFD)

Display : Select 'On' to display all applicable data or characters at the VFD. Nothing will be shown at VFD if 'Temp' is selected. At 'Temp' setting however, whenever any of the front panel controls or their corresponding keys in the remote control is activated, the appropriate VFD characters will be shown temporarily and then fade away. Note that if any of the Zones are at powered state, they will be continually shown at VFD even at 'Temp' setting.

Dimmer : If it is desired to reduce the brightness of the VFD, set Dimmer to 'Dim'. Otherwise, select 'Bright' to return to normal VFD brightness.

Line 1, Line 2 : The VFD shows two main lines of data or characters. Line 2 is the line of data or characters located at the lower bottom of the VFD while directly above it is Line 1. For both lines, one can select which display could be shown by choosing through the following

Main Source : Shows the active Source.

Volume : Current Volume level is shown.

Listening Mode : Selected Listening Mode is shown.

Audio Src Format : Shows the active Source's detected audio format.

Audio Codec : Displays the detected audio stream format like Analog, PCM Surround, Dolby TrueHD, DTS-HD Master Audio and other formats.

Video Mode : Show the video resolution of the active input source. Details shown include the video resolution with frame rate. For a better understanding of these video details, consult with your NAD Audio Specialist or your distributor's technical department.

Zone 2-Zone 3-Zone 4 Source : The assigned Source for the applicable Zone is shown.

Off : Select 'Off' if it is desired not to show any data at the applicable Line.

Temp Line : Choose between Line 1 and Line 2 as the desired line where VFD will be temporarily shown if 'Temp' is selected at 'Display' option as described above.

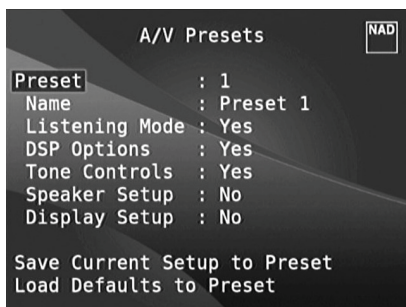
ON-SCREEN DISPLAY (OSD)

Temp Disp : This applies to the OSD that is temporarily shown at video on whenever any of the front panel controls or their corresponding keys in the remote control is activated. Set to 'On' if it is desired to show the applicable OSD at the monitor/TV; otherwise, select 'Off'.

OPERATION

USING THE M15 HD – SETUP MENU

A/V PRESETS



The M15 HD's simple but powerfully flexible system of "A/V Presets" allows you to customize virtually every aspect of your audio-video playback, and recall them with a single key-press. The parameters "Listening Mode", "DSP Options" and "Tone Controls" accessible via the "Main Menu" together with "Speaker Setup" and "Display Setup" configurable through "Setup Menu" are stored together as a single A/V Preset.

You might create one A/V Preset optimized for pop music and another for classical. One more A/V Preset can be set up to recall each family member's favorite setting or one for fully cinematic home-theater playback and yet another one for late-night movies, with each A/V Preset fine-tuned to a particular scenario or preference.

CREATING PRESETS

Creating an A/V Preset consists simply of storing a complete set of the parameters set forth in "Listening Mode", "DSP Options" and "Tone Controls" accessible via the "Main Menu" together with "Speaker Setup" and "Display Setup" configurable through "Setup Menu".

Scroll to "A/V Presets" using the [▲/▼] keys to save a collection of said parameter settings to a Preset. Select a Preset number and by pressing the [▲/▼] keys, you can selectively include in the particular A/V Preset any of the above-mentioned parameter settings by choosing "Yes". If you decide not to include in the particular A/V Preset a certain parameter setting, select "No".

Now in order to save the settings chosen for the particular A/V Preset number, scroll down to "Save Current Setup to Preset" and press the [D] key. If you chose to load instead the default settings, scroll down to "Load Defaults to Preset" and press the [D] key to restore the default settings.

In addition to the parameter settings, the A/V Preset label itself can be assigned a new name. This new Name will be shown in the VFD as well as on the OSD.

To rename the A/V Preset label, scroll to "Name" and press [D] to go the first character. Then, press [▲/▼] to pick and select through the alphanumeric selections. Press [◀/▶] to move to the next character or back to the previous character and at the same time save the changes done on the current character.

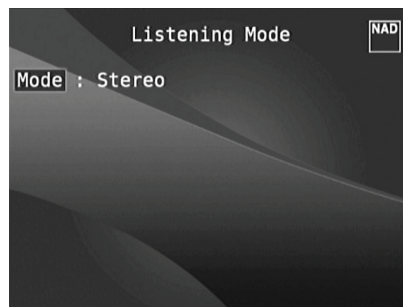
NOTE

The selected A/V Preset remains in force until you select a different A/V Preset.

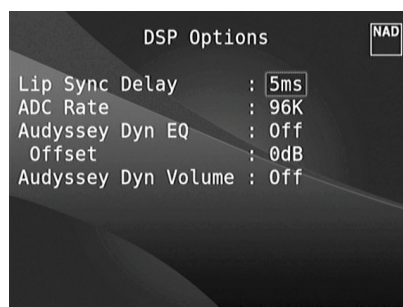
SAMPLE PROCEDURE FOR SETTING UP A/V PRESETS

- 1 Setup first your preferred settings for the following options (access them through their respective menu page).

Listening Mode: Stereo



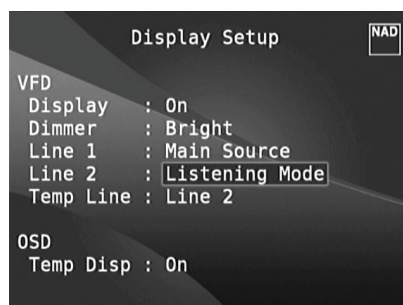
DSP Options: 5ms



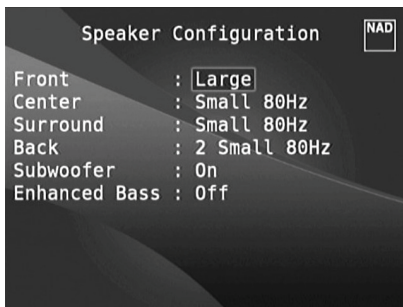
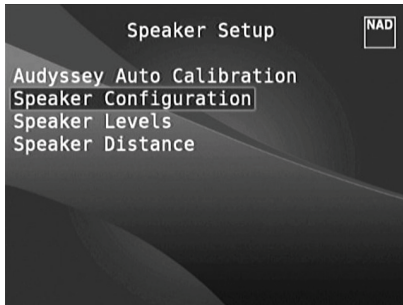
Tone Controls: Tone Defeat: On



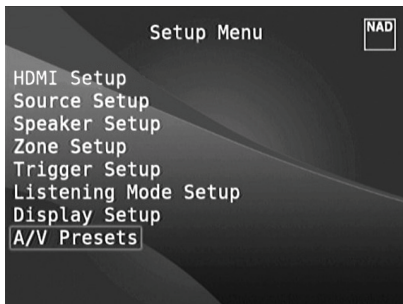
Display Setup: Set "Line 2" to "Listening Mode"



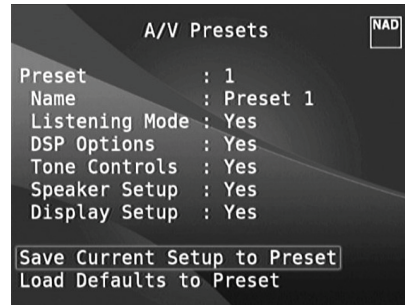
Speaker Setup: from the Speaker Setup menu, go to “Speaker Configuration” sub-menu and change “Subwoofer” from “On” to “Off”:
“Front” becomes “Large”



- With the above settings, scroll to “A/V Presets” from the SETUP MENU page. Use [] to access “A/V Presets” menu.



- At “A/V Presets” page, set “Preset: 1” to the following conditions - use [] to select “Yes” or “No” and press [ENTER] to confirm selection and move on to the next setting.



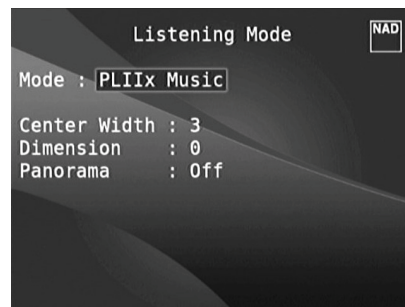
While at “Save Current Setup to Preset” menu line, use [] to save the above settings to Preset 1. Below OSD will be shown, affirming that the above settings are now saved to “Preset 1”.



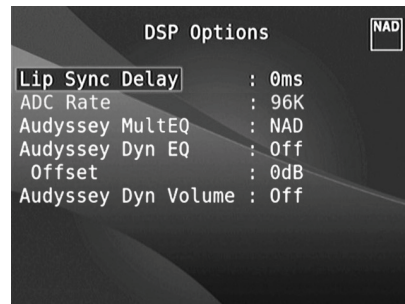
When you recall “Preset 1” using the remote control (for HTRM, “A/V PSET” + “1”), the above preset values allocated at “Preset 1” (preset settings as shown in the OSD captures at Step 1) will be recalled and effected at the current source.

- Now, repeat again Step 1 above but this time with the following settings

Listening Mode: PLIIX Music



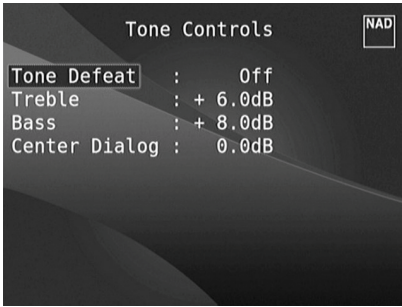
DSP Options: 0ms



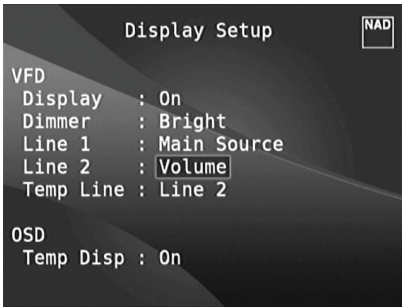
OPERATION

USING THE M15 HD – SETUP MENU

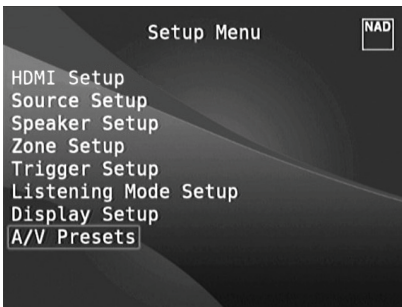
Tone Controls: Tone Defeat: Off



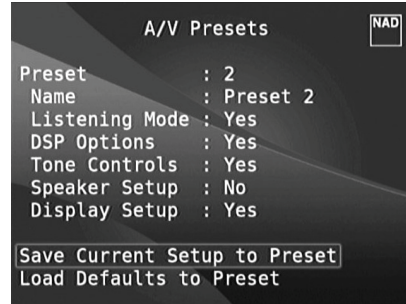
Display Setup: Set "Line 2" to "Volume"



5 With the above settings, scroll to "A/V Presets" from the SETUP MENU page. Use [] to access "A/V Presets" menu.



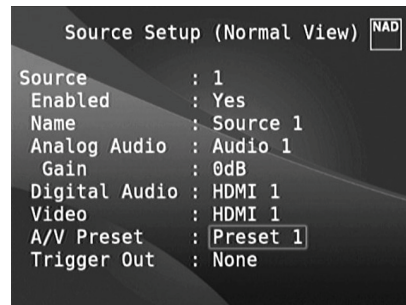
6 At "A/V Presets" page, set "Preset: 2" to the following conditions - use [] to select "Yes" or "No" and press [ENTER] to confirm selection and move to the next setting.



While at "Save Current Setup to Preset" menu line, use [] to save the settings above to "Preset 2". When you recall "Preset 2" using the remote control (for HTRM, "A/V PSET" + "2"), the above preset values allocated at "Preset 2" (preset settings as shown in the OSD captures at Step 4) will be recalled and effected at the current source.

Note that "Speaker Setup" is set to "No". At this condition, there will be no "Speaker Setup" values that will be effected at "Preset 2". The "Speaker Setup" settings that will be applied at "Preset 2" will be the last or current "Speaker Setup" settings which in this sample are the same "Speaker Setup" settings shown above in Step 1.

7 You can setup up to 5 A/V Presets. These same A/V Presets can also be associated/defaulted to each Source in the "Source Setup (Normal View)" window as below.



In the above example, "Preset 1" settings are allocated for Source 1. Whenever Source 1 is accessed, the "Preset 1" settings will be applied to Source 1. You can still manually override the assigned A/V Preset allocation in a specific Source with another Preset setting/number by way of pressing the appropriate remote control buttons.

RECALLING PRESETS

You may recall an A/V Preset number at any time using the HTRM remote control. Press the HTRM's A/V PSET key and then the numeric key 1-5 corresponding to the desired A/V Preset number. The newly recalled A/V Preset will then manifest or replace the previous A/V Preset (if any).

The M15 HD is equipped with a data port in the rear panel where an optional "NAD IPD Dock for iPod" (NAD IPD) can be plugged in. With the NAD IPD linking the M15 HD 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 M15 HD front panel. And with the corresponding HTRM 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 also charges your iPod player while it is connected to the M15 HD.

NOTES

- "NAD IPD Dock for iPod" (NAD IPD) currently has two versions - the NAD IPD 1 and NAD IPD 2. These two NAD IPD models and later variants are compatible with the M15 HD.
- NAD IPD and iPod player are not supplied with your M15 HD.
- iPod player functions, features and playback capabilities accessible through M15 HD may vary depending on your iPod player model.
- When using the HTRM to control the iPod functions, make sure that the Device Selector is set to "AMP."

CONNECTING THE OPTIONAL NAD IPD AND iPod PLAYER TO THE M15 HD

Make sure that all the devices are unplugged before making the connections.

- 1 Connect the NAD IPD's DATA PORT to the corresponding "MP DOCK" data port of the M15 HD.
- 2 Connect also the NAD IPD's S-Video out and audio out to the M15 HD AUDIO 4/S-VIDEO 4 input (the default iPod source allocation in the M15 HD).
- 3 Dock your iPod player into the NAD IPD.

NAVIGATING THE IPOD PLAYER'S FUNCTIONS AND FEATURES

After linking together your iPod player, NAD IPD and the M15 HD, you can now plug them IN to their applicable power sources.

- 1 With your M15 HD, iPod player and NAD IPD all at power ON state, select SOURCE 4 (iPod) of your M15 HD. Your iPod player will show in its display the NAD logo and below it "OK to disconnect." On the other hand, the M15 HD VFD will show in the upper line "iPod Menu" and the lower line "Playlists". The lower line will vary depending on the current menu selected. At the same time, the M15 HD OSD will display the whole iPod Menu selections like Playlists, Artists, Albums, Songs, Podcasts, Genres, Composers and Audiobooks.
- 2 Navigate through the iPod menu selections using a combination of the [/ / /] buttons.

NOTES

- The iPod player's click wheel and controls will not operate when it is properly connected to the M15 HD via the NAD docking station.
- To exit from the iPod Menu at Source 4 (iPod), press [] bringing you to "Menu Select" OSD. Follow the instructions as shown.
- Source 4 is defaulted to iPod. For Source 4 (iPod) to be changed and allocated for other inputs, go to "iPod Setup" menu under the "Source Setup" menu. At "iPod Setup" menu, set "Enabled" to "No" – you can now assign Source 4 with another input or setting as desired.

CONTROL FEATURES AND SETTINGS

The following control functions and settings are selectable or enabled using the front panel and HTRM remote control buttons. Since the HTRM will be the primary controller in most cases, we will focus on remote-controlled operations.

Note that other NAD IPD models, like the NAD IPD 2, have their own remote controls. The controls below also apply to the corresponding buttons of the remote controls of such applicable NAD IPD models.

ENTER

While at iPod Menu OSD, press [ENTER] to go to "iPod Settings" and setup the following options:

Shuffle: Select "Shuffle" to enable random playback of either "Songs" or "Albums" lists. To turn off shuffle mode, select "Off".

Repeat: Select "One" for repeated playback of the current song. Select "All" for repeated playback of your entire list under "Songs" selection.

Audiobook Speed: The playback speed of your audiobook can be varied according to your preference. During audiobook playback, adjust the reading speed to "Normal", "Fast" or "Slow".

DISP

- During playback, toggle [DISP] key of HTRM to show in the M15 HD VFD upper line the Song title, Artist Name and Album title.
- If there is no information available, the display will show "No Song", "No Artist" or "No Album" as applicable. Aside from this information, the lower line will display the current title's song number allocation and time elapsed.



- During playback mode, press [] to skip forward to the next song or [] to skip back to the previous song.
- For quicker scrolling up or down the list, press and hold [/].
- While at menu options or selection lists, toggle [/] to go up or down the options or lists.



- Press HTRM's [SKIP] to scroll up and down the Songs list one page or at least 8 titles at a time.
- Press and hold [/] to quickly scroll through the song titles.
- During fast scrolling, [SKIP], the first letter of the song is displayed on the bottom right corner of the OSD as the title changes. This is applicable only when there are more than 4000 song titles.

[] (PAUSE) / [] (PLAY)

- Press [] (PAUSE) during playback to stop playback temporarily.
- Resume play by pressing [] (PAUSE) again or [] (PLAY).



- During playback or pause mode, press [] once for fast forward or backward scanning of current song.
- Resume play by pressing [] again or [].

OPERATION

LISTENING TO YOUR iPod PLAYER

NAD IPD 2

The NAD IPD 2 has its own remote control - the DR 1. When using the DR 1 to command your iPod player docked in the NAD IPD 2, you have to refer to your iPod player's own display screen to make full use of its feature; there is no OSD at this condition. However, any time you press HTRM's [**D**] button, the "Menu Select" OSD comes up. If you select "iPod Menu" at this "Menu Select" option, the NAD IPD 2 gets manually connected. The control of the NAD IPD 2 will then again be done through the M15 HD using the applicable front panel control buttons or HTRM buttons while referring to the OSD; the NAD IPD 2 will not respond to any DR 1 commands at this stage.

IMPORTANT NOTES

- For you to control the NAD IPD 2 using the DR 1, you have to go to "iPod Setup" menu (please refer to the item about "iPod Setup" under the "USING THE M15 HD - SETUP MENU" segment of OPERATION section) and then set "Auto Connect" to "No". With this setting, you can then use the DR 1 to control your iPod player docked in the NAD IPD 2.
- Note that if you set "Auto Connect" to "No" while at Source 4 (iPod), you have to change source and then return to Source 4 (iPod) for the changed setting to take effect.

REGAIN CONTROL OF NAD IPD 2 USING DR 1 REMOTE CONTROL

In order to switch back control of the NAD IPD 2 from the M15 HD/HTRM to the DR 1 remote control, follow these steps.

- 1 Exit from the iPod Menu by pressing repeatedly [**◀**] until it brings you to "Menu Select" OSD.
- 2 Highlight "iPod Menu" and press [**◀**] to advance to "iPod Menu".
- 3 At "iPod Menu", press [**▶**] to close iPod menu. DR 1 remote control regains control of the NAD IPD 2.

In addition to the above commands common to the DR 1, below are the descriptions of the other DR 1 control buttons.

LIGHT

Press [LIGHT] to turn ON the backlight of your iPod player if it is at idle mode.

MENU

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

ENTER

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

↻ (REPEAT)

Toggle to initiate repeat mode as follows - repeat one song, repeat all songs or cancel repeat mode

⌘ (RANDOM)

Toggle to initiate playback in random order. There are three random modes - Shuffle Song, Shuffle Album or Shuffle Off.

⏮/⏭

- During playback mode, press [**⏭**] to skip forward to the next song or [**⏮**] to skip back to the previous song.
- During playback or pause mode, press and hold [**⏮/⏭**] for fast forward or backward scanning of current song. Release [**⏮/⏭**] to resume playback.

TO VIEW VIDEOS OR PHOTOS LOADED IN YOUR iPod

Videos or photos uploaded in your iPod can be viewed directly via the M15 HD. The following are the steps

- 1 Make sure that the "TV Out" setting of your iPod's Video Settings menu is at "On" mode and appropriate "TV Signal" is chosen.
- 2 Video or photo file selections and playback procedures are managed directly from your iPod player and not through the M15 HD. You must exit completely from the M15 HD's Setup Menu or Menu Select OSD for you to be able to navigate through your iPod player's video or photo menu options. A more direct way is by going to the "iPod Setup" menu and set "Enabled" to "No".
- 3 With the NAD IPD's S-VIDEO OUT and AUDIO OUT ports connected to the M15 HD's AUDIO 4/S-VIDEO 4 input or to any other assignable input, you can now directly enjoy via M15 HD your video or photo file selections as uploaded in your iPod. Make sure that you select the correct "Source Number" of the M15 HD. Note that if "Enabled" from "iPod Setup" is set to "No", ensure that Source 4 is enabled and analog audio and video settings are assigned to "A4" and "S4" respectively.

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 M15 HD navigation controls.

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

IDENTIFICATION OF CONTROLS

- Top section features ON/OFF buttons and back-light LCD display.
- Upper section has eight DEVICE SELECTOR keys including one programmable CUSTOM DEVICE SELECTOR key and an additional MACRO button function key.
- The upper middle section with channel, volume, MUTE, and surround mode buttons.
- Middle section has DVD, BD, CD, TUNER and OSD navigation buttons.
- Lower middle section has number buttons 0 to 9, A/V PSET, SPEAKER and CD functions, DVD/BD SETUP, and TEST and DELAY buttons.
- Lower section has DVD, BD and CD transport buttons, audio function keys as well as DVD resolution button.
- Bottom section with CHANNEL VOLUME trimming buttons.

INTRODUCTION

The HTRM is like having eight virtual remote controls in one. The eight DEVICE SELECTOR keys can be used to switch between the different virtual remote controls or devices.

When the HTRM is idle, the name of the currently selected device will be shown on the first line of the LCD display. Whenever a function key is pressed, the name of that function will be shown on the second line of the LCD display. The second line will be cleared again shortly after releasing the function key.

HIGHLIGHTS

- Controls up to 8 Devices.
- 2-line LCD display indicates selected Device (DVD) and sent Command ("PLAY", for example).
- Preprogrammed with all NAD remote commands including Zone 2.
- Learning function - learns up to 360 commands from other remotes.
- Macro operations - program up to 52 Macros with as many as 64 commands each to automate commonly used command sequences.
- Punch Through Operations permit easy access to commonly used functions without reselecting a device.
- Full illumination with light sensor and adjustable time out for easy operation in low light conditions.
- Can generate IR signals with a carrier frequency up to 500 kHz (B&O® compatible).
- Mini USB PC Interface allows programming from a Personal Computer.

The HTRM is already preprogrammed with a full complement of NAD commands on its AMP DEVICE SELECTOR page, and with library commands to operate most NAD DVD, CD and TUNER components on the corresponding DEVICE SELECTOR keys. These default commands are permanent: Even if you teach the HTRM 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.

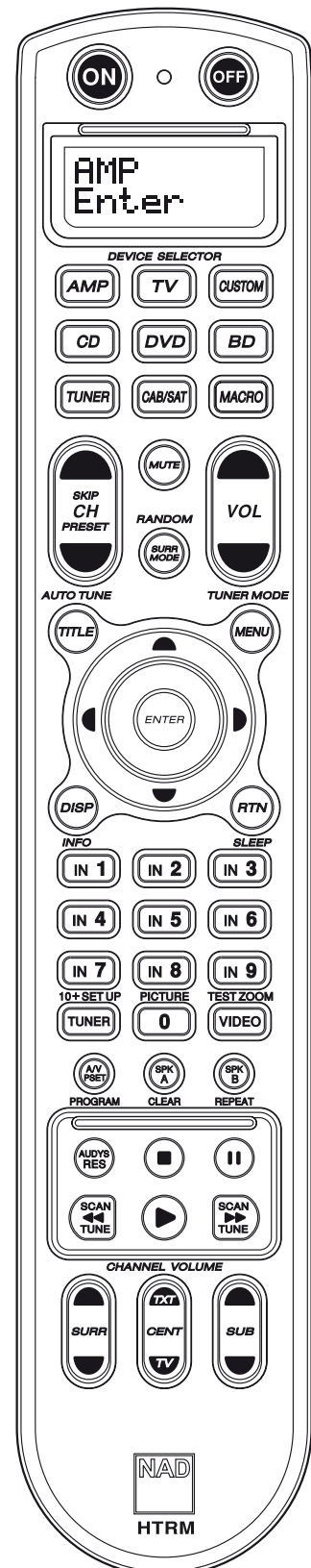
GETTING FAMILIAR WITH THE HTRM

The HTRM is divided into three main sections. The LCD display section at the top of the handset, the DEVICE SELECTOR, and the remaining 44 Control keys.

Eight DEVICE SELECTOR keys at the top; AMP, TV, CUSTOM, CD, DVD, BD, TUNER, and CABLE/SAT determine which component the remaining 44 control keys will operate. A DEVICE SELECTOR key determines what component the HTRM will command; with factory defaults, it does not perform any function on the M15 HD. The DEVICE SELECTOR keys are organized into three vertical rows of 3 buttons each; the row on the left are all Audio devices, the row in the center are all Video devices.

Both the DEVICE SELECTOR and function keys can "learn" control codes from virtually any infrared remote controller, allowing you to teach the codes of your equipment, regardless of brand, to the HTRM. All of the function keys on the AMP DEVICE SELECTOR are preprogrammed to control NAD amplifiers, preamplifiers, and receivers. (The HTRM can also command many other NAD components, from its DVD, BD, CD, TUNER and TV pages.)

Since HTRM Control keys can perform different functions, depending on the selected DEVICE SELECTOR key, the HTRM uses color coding to indicate the function of the function keys when different device keys are chosen. Thus, the colour of the DEVICE SELECTOR key-labeling corresponds to the labeling of the function keys (similar to a calculator).



OPERATION

USING THE HTRM REMOTE CONTROL

For example, the grey AMP DEVICE SELECTOR key label corresponds to the grey input-select labeling adjacent to the numeric keys: When the HTRM's AMP DEVICE SELECTOR page is active, these keys select the amplifier, preamplifier or receiver inputs. Similarly, the red DVD DEVICE SELECTOR key label corresponds to several red labels, the green TV DEVICE SELECTOR key to green labels, and so on.

NAVIGATION OF THE HTRM CONTROLS

DEVICE SELECTOR KEYS

Simply pressing a DEVICE SELECTOR key will change the active device on the HTRM. At this time, no IR commands will be transmitted. The name of the selected device will be shown on the first line of the LCD display.

NOTE

Any IR command can be associated with a DEVICE SELECTOR key during "Copy" and "Learn" modes. Once the associated function is assigned to the DEVICE SELECTOR key, pressing and holding the DEVICE SELECTOR key for more than two seconds will send the associated command in addition to the HTRM switching its active device.

MACRO KEYS

A macro can be associated with every key on the HTRM except for the MACRO button itself. A total of 52 macros can be stored. To execute a macro:

- Press the MACRO key. The first line of the LCD display will show "MACRO". Within five seconds, press the key the macro is associated with.
- While the macro is executing a small "M" will be shown in the top right of the LCD display.

Refer also to the "MACRO" item below of the "HTRM SETUP MENU" section for information on how to setup macros.

FUNCTION KEYS

There are 44 dedicated function keys on the HTRM. When you press a function key, the name of the function will be shown on the second line of the LCD display while the command is being transmitted.

A/V PSET KEY

In the default configuration of the HTRM, the A/V PSET key acts as a shift function when the AMP device is selected. Pressing the A/V PSET key once will cause "Preset" to be displayed on the first line of the LCD display. If within five seconds you then press a digit (0 - 9), the function for the corresponding A/V Preset will be transmitted.

NOTE

The HTRM is a universal-type remote control; some NAD models may not have more than 5 AV presets.

SOFTWARE VERSION NUMBER

Press simultaneously the ON + TEST buttons for five seconds to display version numbers.

SETUP MENU

Press and hold the SETUP and ENTER keys for five seconds to enter the Setup Menu. You cannot enter the setup menu if the remote is currently displaying "Low Batt." This feature prevents the setup from becoming corrupted under low battery conditions. Please refer to "HTRM SETUP MENU" section below for the overall structure and basic operation of the Setup Menu.

HTRM SETUP MENU

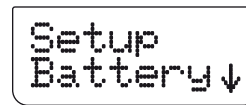
GENERAL MENU OPERATION

- Press and hold SETUP + ENTER for 5 seconds to enter setup menu.
- The MACRO key is a cancel function in all setup modes unless otherwise noted.
- You can exit menus by selecting "Exit" or pressing the MACRO key.
- Use [▲/▼] cursor keys to select different menu
- For options which can be changed, the Right and Left keys are used to cycle through the available options. Left and Right arrows will be shown on the display to indicate when an option can be changed.
- Press ENTER to select a menu option or confirm a value.
- While a setup menu page is being executed, the corresponding first letter of the selected setup feature (i.e. "L" when "Library" is the selected SETUP) is shown in the upper right corner of the display.

The following are the SETUP menu parameters.

BATTERY

Instead of waiting until the "Low Batt" warning is displayed, you can check the current battery level using this option. This option will show a bar graph representing the current battery level. When the batteries are new, the bar graph will show 8 bars. Once the bar graph reaches close to zero, the "Low Batt" warning will start to show.



LOW BATTERY WARNING

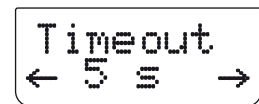
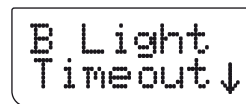
If the HTRM senses the batteries are low, it will show "Low Batt" on the second line of the LCD display whenever the remote is idle. When this occurs the batteries should be replaced with new ones immediately.

BACK LIGHT SENSITIVITY (B LIGHT)

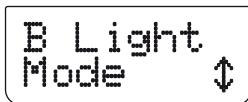
The HTRM is equipped with a backlight to increase visibility of the HTRM in low light conditions. The HTRM also includes a light sensor. By default, if you press any key on the remote and it senses a low light condition, the backlight will turn on. It will then turn off again five seconds after no key has been pressed. The behavior and timeout for the backlight can be adjusted.



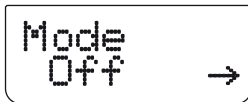
TIMEOUT: The backlight timeout can be set from 0 - 20 seconds. This is the length of time the backlight stays ON after releasing the last key.



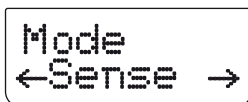
MODE: The following backlight modes are available:



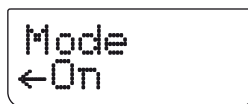
- **Off:** The backlight will never come ON.



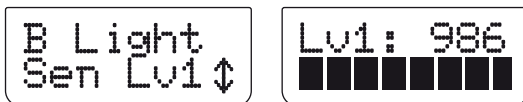
- **Sense:** The backlight will only come ON if the light sensor detects low light conditions. See also "SENSE LEVEL" discussion below.



- **On:** The backlight will come ON any time a key is pressed.



SENSE LEVEL (Sen Lvl): The point where the backlight comes ON in a darkened room. To set this level, go to a dim area where you think the backlight should be activated given such a dark environment condition. Then, press [ENTER] at "B Light – Sen Lvl" menu. The display will show the current sensitivity level. An example is below



If such sensitivity level is alright with you, press [ENTER].

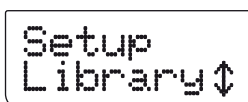
Select "YES" to complete the setting of the sensitivity level.

LIBRARY

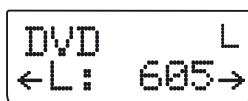
The HTRM can store a different library of default NAD codes for each of its DEVICE SELECTOR "pages." If the original default library does not control your NAD CD player, DVD player, or other component, follow the procedure below to change the library code. Please refer as well to the table below for a list of uploaded NAD Library Codes.

Example: Load NAD DVD Player T 585 library codes to HTRM's "DVD" device.

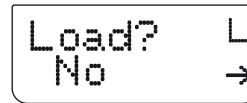
- 1 Press [DVD] in the DEVICE SELECTOR page.
- 2 Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Library".
- 3 Press [ENTER].



- 4 The library code for NAD T585 is "600". Use [◀] to toggle to "600". Press [ENTER].



- 5 Use [◀/▶] to select between "No" (desired library code is not uploaded) and "Yes" (desired library code is uploaded and saved to the applicable device page).



NOTE

Instead of scrolling through the library list, you can also key-in directly the library code based on the list of Library Codes below.

LIBRARY CODE	NAD PRODUCT DESCRIPTION	LIBRARY CODE	NAD PRODUCT DESCRIPTION
100	Receiver/Processor (Discrete ON/OFF)	300	Tuner
101	Receiver/Processor (Toggle ON/OFF)	301	L75, L76 Tuner
102	5170	302	L70 Tuner
103	L75	303	L53 Tuner
104	Second Zone Commands (Zone 2)	304	L73 Tuner
3112	Zone 3	305	C425
4112	Zone 4	306	C445
105	L70	307	Txx5 Series Tuner
106	L76	400	Tape Deck B
107	118	401	TAPE Deck A
108	L53	500	TV 280
109	L73	501	MR13
110	Stereo Receiver / Amplifier	502	MR20
111	Stereo Second Zone	503	PMR45
112	Txx5 Series	600	T535, T562, T585, M55
200	CD Player	601	T550, L55
201	CD Player (old)	602	T512, T531, T532, T571, T572
202	5170, 5240, 5340	603	L70, L73 DVD
203	5325	604	L56
204	5060	605	T513, T514, T515, T517, T524, T533, T534
205	M5	606	L53 DVD

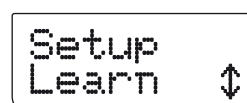
LEARN

This function allows you to learn IR commands from another remote.

Example: Learning "MENU" function from a TV remote control into the MENU button of HTRM's TV device.

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

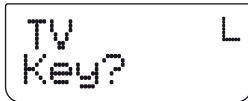
- 1 Press [TV] in the DEVICE SELECTOR page.
- 2 Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Learn".



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USING THE HTRM REMOTE CONTROL

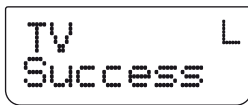
- 3 Press [ENTER].



- 4 Press [MENU] button of HTRM – [MENU] button of the HTRM is where the corresponding [MENU] function key of the TV remote control will be learned.



- 5 Press and hold the corresponding [MENU] button of the TV remote control until "Success" is shown in the display. (Refer also to "MODE" discussion below).



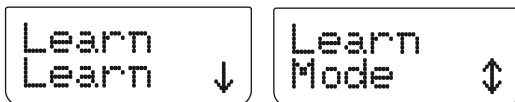
- 6 "Success" will be shown in the display if the [MENU] function key is successfully "learned." You can now release the [MENU] button of the TV remote control.
7 Wait until "Success" is extinguished from the display to complete the process.

NOTE

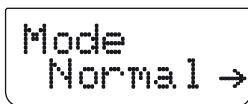
"Failed" will be shown in the lower line display if the "learning" of the desired function key is unsuccessful. Repeat Step 3 – 7 again until "learning" of the desired key is successful.

MODE

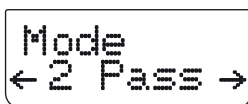
There are three modes on how a function key can be learned. Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Learn". Press [ENTER] and then [▼] to scroll to "Mode". The following are the three modes:



- Normal:** This is the regular learning mode. A function key is learned until "Success" is shown in the display. The example above is at "Normal" learn mode.

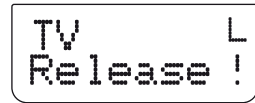
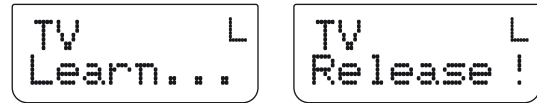


- 2 Pass:** Some remote controls use an IR (infrared) "toggle bit". This means that if you press the same key twice in a row, the IR signal toggles between two different variations of the same command.

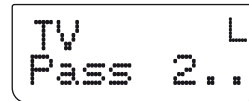


At "2 Pass" mode, step 5 and onwards of the above example would be as follows (the same Steps 1 – 4 of the above example applies)

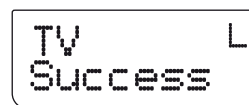
- 5 Press and hold the corresponding [MENU] button of the TV remote control.



- 6 Release [MENU] button.

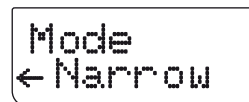


- 7 "Pass 2" means that you have to press [MENU] button again. Press until "Success" is shown in the display.



- 8 "Success" will be shown in the display if the [MENU] function key is successfully "learned." You can now release the [MENU] button of the TV remote control.
9 Wait until "Success" is extinguished from the display to complete the process.

Narrow: Some remote controls use very narrow pulses of IR. If you cannot get your remote to work using the normal or 2 Pass modes, you may want to try this mode. The same example above for "Normal" mode applies to "Narrow" mode.

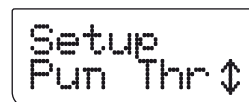


PUNCH-THROUGH (Pun Thr)

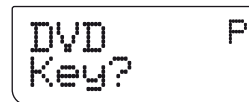
The HTRM's "Punch through" function allows you to retain a function key from one DEVICE SELECTOR "page" to another.

Example: Punch-through "SURR MODE" key to the "DVD" page.

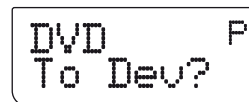
- 1 Press [DVD] in the DEVICE SELECTOR page.
- 2 Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Pun Thr".



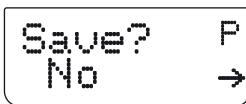
- 3 Press [ENTER].



- 4 Press [SURR MODE] button – this is the function key that will be punched through.



- Press the [AMP] button in the DEVICE SELECTOR page.



- Use [◀/▶] to select between "No" (desired punch-through key will not be saved) and "Yes" (desired punch-through key will be saved and process is completed).

NOTE

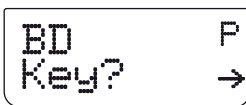
The HTRM's [VOL] keys are pre-programmed as "punched-through" for all Device Select pages: [VOL] will operate the NAD's master-volume regardless of the currently selected device. The [SURR], [CENT] and [SUB] CHANNEL VOLUME controls similarly are pre-programmed as punched-through.

PUNCH-THROUGH MACRO

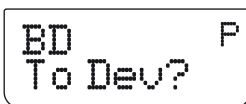
A stored macro command can also be "punched-through." This provides a way to execute a macro with a single keys press.

Example: Punch-through macro command stored at [0] to the [RTN] key of [BD] page.

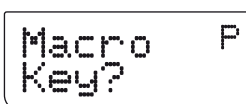
- Press [BD] in the DEVICE SELECTOR page.
- Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Pun Thr".
- Press [ENTER].



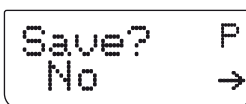
- Press [RTN] button.



- Press the [MACRO] button in the DEVICE SELECTOR page.



- Press [0] button – this is the key where the macro command is associated.



- "Save" and "No" are shown in the display. Use [◀/▶] to select between "No" (desired punch-through macro command will not be saved) and "Yes" (desired punch-through macro command will be saved and process is completed).

EXECUTE PUNCHED-THROUGH MACRO

To recall the punched-through macro command as above example, press [BD] in the DEVICE SELECTOR page and then press [RTN] – the macro command will then be executed.

Refer also to the "MACRO" section below for information on how to setup macros.

COPY

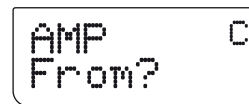
This function allows you to copy functions from one key to another.

Example: Copy "PAUSE" [II] command from DVD page to the AMP [II] button.

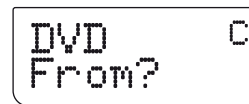
- Press [AMP] in the DEVICE SELECTOR page.
- Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Copy".



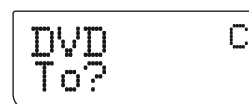
- Press [ENTER].



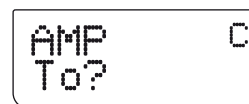
- Press [DVD] from DEVICE SELECTOR page.



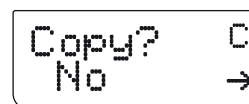
- Press [II] button - this is the function key that will be copied.



- Press [AMP] from DEVICE SELECTOR page.



- Press [II] button - this is the button where the function will be copied.



- Use [◀/▶] to select between "No" (desired function key will not be copied) and "Yes" (desired function key will not be copied and process is completed).

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.

OPERATION

USING THE HTRM REMOTE CONTROL

DELETE

Each key can have several function types stored. However, only the highest priority type will be active. When you delete a function, a lower priority function type may become active. To completely erase the functionality of a key, you may need to execute the Delete function multiple times. For example; if you delete a learned command, a lower priority command may become active. The order of priority for each function type is:

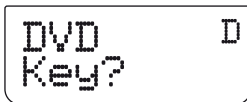
- 1 Punch Through
- 2 Learned
- 3 Copied Library Command
- 4 Default Library Command

Example: Delete punch-through "SURR MODE" function key from DVD page (refer to PUNCH-THROUGH example above).

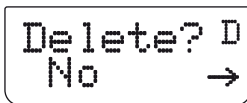
- 1 Press [DVD] in the DEVICE SELECTOR page.
- 2 Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Delete".



- 3 Press [ENTER].



- 4 Press [SURR MODE] button.



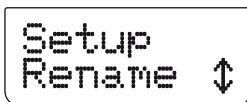
- 5 Use [◀/▶] to select between "No" (desired function key will not be deleted) and "Yes" (desired function key is deleted and process is completed).

RENAME

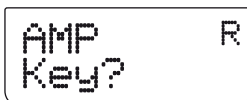
All keys can be renamed except MACRO key.

Example: Rename "Input 1" key of "AMP" page to "DVD".

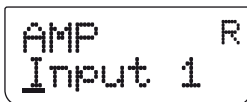
- 1 Press [AMP] in the DEVICE SELECTOR page.
- 2 Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Rename".



- 3 Press [ENTER].



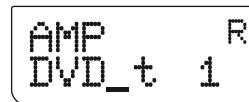
- 4 Press [1] button.



- 5 Use [▲/▼] buttons to select the first character of the name ("D" from the alphabetical list).



- 6 Press [▶] button to select the character and correspondingly move forward to the next position. (Press [◀] to go back to the previous character). Repeat this process for each character in sequence.
- 7 Since "DVD" is only three characters and "Input 1" is six character spaces, overlap the remaining characters with a space. Space or blank can also be selected using [▲/▼] buttons – scroll up to the blank character.



- 8 Press [ENTER] when you have finished the renaming sequence.
- 9 Display shows "Save" and "No" - use [◀/▶] to select between "No" (new name will not be saved) and "Yes" (new name will be saved and process is completed).

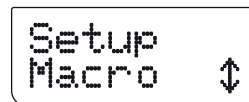
MACRO

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 HTRM can store one macro to all its function keys except MACRO.

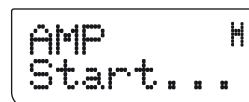
Macros will be executed with the same timing as they were recorded. The length of time each command is sent will also correspond to the same length of time the key will be held down while recording.

Example: Record a Macro to the [0] key to turn ON the NAD M15 HD, Select [Input 1], turn ON the NAD T515 DVD Player, and commence disc playback of the connected Input 1 device (as in the NAD T515 DVD player):

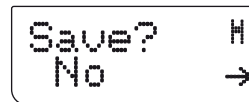
- 1 Press [AMP] in the DEVICE SELECTOR page.
- 2 Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Macro".



- 3 Press [ENTER].
- 4 Display shows "Macro" and "Key?" - press [0].



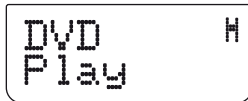
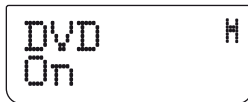
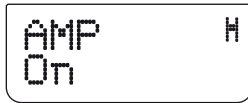
- 5 Press [AMP], [ON], [1], [DVD], [ON] and [▶] (Play). The length of time each command is entered will also correspond to the same time sequence the macro command is executed.
- 6 Press [MACRO] to end the sequence.



- 7 Use [◀/▶] to select between "No" (macro command will not be saved) and "Yes" (macro command will be saved and process is completed).

EXECUTING MACRO

To execute the above macro example, press [MACRO] and then [0].



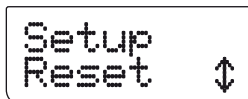
The corresponding macro will run; the display will show each step/ command as the macro is executed. Pressing any other HTRM key while a macro is executing will abort the macro.

By default, when a macro is executed, the currently selected device will be returned to what it was before the macro was executed. However, if the very last button pressed while recording a macro is a DEVICE SELECTOR key, the device will be changed at the end of executing the macro.

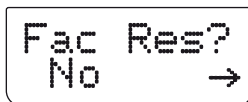
RESET

Selecting this option and answering "Yes" to both confirmations will reset all HTRM options to the factory default. All user configurations, macros, and custom device programming will be erased.

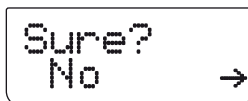
- 1 Press [AMP] in the DEVICE SELECTOR page.
- 2 Press and hold [TUNER (10+/SETUP)] and [ENTER] buttons. Use [▼] to scroll to "Reset".



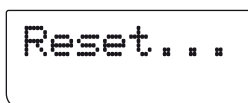
- 3 Press [ENTER].



- 4 Use [◀▶] to select between "No" (HTRM will not be reset) and "Yes" (HTRM will be reset to its factory defaults). When you select "Yes", another prompt display will be shown.



- 5 Select "Yes" to reset the HTRM and complete the process.

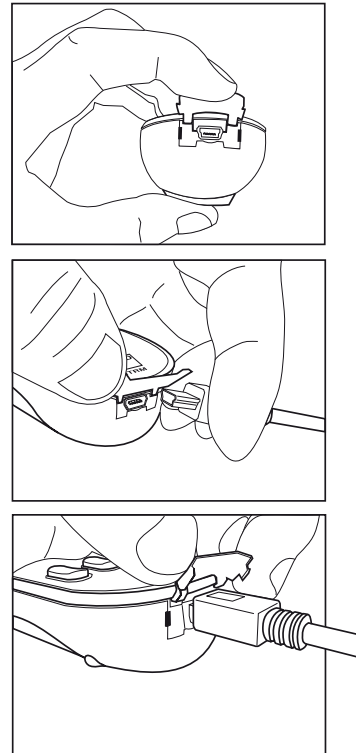


USB INTERFACE

The HTRM allows one to upload and download the configuration through a Windows® PC and NAD's Proprietary HTRM programming software. Use a USB A male to mini USB B male 5-pin cable (not supplied) between your Windows® PC and the HTRM. See illustration below on how to connect a USB A male to mini USB B male 5-pin cable to the HTRM.

NOTE

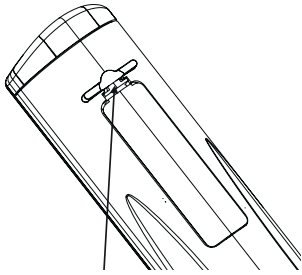
Please log onto www.nadelectronics.com for the latest HTRM interface control software. Your custom installer or dealer can assist you in the proper setup and configuration of the mini USB interface and software.



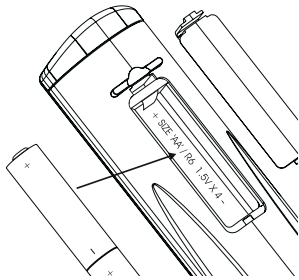
OPERATION

USING THE HTRM REMOTE CONTROL

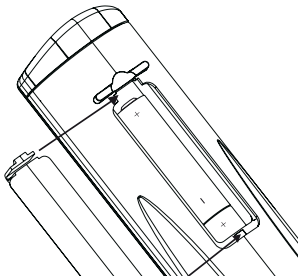
BATTERY INSTALLATION



Press in and lift tab to remove battery cover out from recess



Place batteries into opening. Ensure the correct polarity is observed



Press battery cover into place until it 'clicks' closed

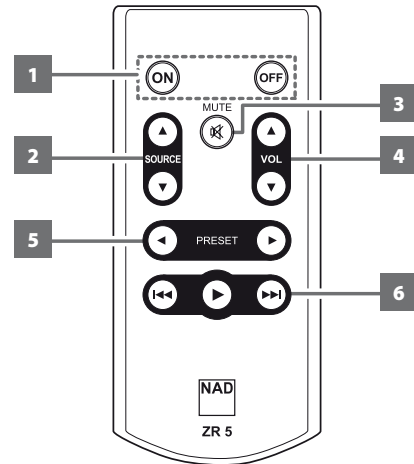
SLEEP MODE

The Sleep Mode timer will switch the M15 HD to Standby mode automatically after a preset number of minutes. Pressing the HTRM's SLEEP button once will display the setting of the sleep time increment. Pressing the HTRM's SLEEP button a second time within a 3-second period will change the sleep time increment in 15-minute intervals, after which time the M15 HD will automatically switch into Standby mode.

To adjust the sleep delay, press the HTRM'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 M15 HD's front panel Vacuum Fluorescent Display (VFD). Each consecutive press increases the sleep time in 15-minute increments from 15 to 90 minutes. To cancel the sleep mode, continue pressing the HTRM's SLEEP button until "SLEEP OFF" displays on the VFD. Switching the M15 HD to standby from either the HTRM's OFF or the M15 HD's STANDBY button will also cancel the sleep mode

USING THE ZR 5 REMOTE CONTROL

The ZR 5 is a discrete compact remote for controlling the applicable Zone 2 features of the M15 HD. Irrespective of the main room/zone settings, the ZR 5 allows full separate control of the Zone 2 source selection among other applicable features.



- 1 **ON/OFF**: Switch ON/OFF the Zone feature.
- 2 **SOURCE** [▲/▼]: Select the active input of the NAD M15 HD that will be sent out to the corresponding rear panel ZONE 2 output port.
- 3 **MUTE**: Temporarily switch OFF or restore the Zone Volume level.
- 4 **VOLUME** [▲/▼]: Increase or decrease the loudness level of selected Zone source. This is possible only if the VOLUME setting of ZONE 2 is set to VARIABLE.
- 5 **PRESET** [◀/▶]: Step up or down between stored radio presets. This control button is possible if the selected Zone is "TUNER" and the active tuner section has stored presets. This control button is not applicable to M15 HD.
- 6 The following CD Player Zone buttons can control a compatible CD Player. The CD Player has to be powered ON and disc loaded.
 - SKIP** [◀◀]: Go to the beginning of a track/file or previous track/file.
 - SKIP** [▶▶]: Go to the next track/file.
 - [▶]: Start playback.

NOTE

The ZR 5 remote control will only control Zone 2 applications. Zone 3 and Zone 4 could be configured and managed at the appropriate Zone OSD menu using the corresponding keys on the HTRM remote control. The HTRM's "CUSTOM" device is also defaulted to Zone 2 remote control codes.

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 Configuration' channel (s) set to "OFF".	• Check 'Speaker Configuration' menu.
	• Power-amp connections faulty.	• Check power amplifier and cabling.
No sound from surround channels.	• No surround listening mode is engaged.	• Select appropriate listening mode.
	• Surround-channels set to "OFF" on 'Speaker Configuration' menu.	• Correct 'Speaker Configuration' or 'Speaker Levels' settings.
	• Surround-channels level set too low on 'Speaker Levels' menu.	
No sound from Subwoofer.	• Subwoofer is off, not powered or improperly connected.	• Power-up subwoofer, check Sub's AC outlet or check connections.
	• Subwoofer set to "OFF" on 'Speaker Configuration' menu.	• Correct 'Speaker Configuration' or 'Speaker Levels' settings.
	• Sub level set too low on 'Speaker Levels' menu.	
No sound from Center channel.	• Source is a 2/0 (etc.) Dolby Digital or DTS recording without center channel.	• Play a known 5.1-channel recording or select Dolby Pro Logic IIx Music mode.
	• Center set to "OFF" on 'Speaker Configuration' menu.	• Correct 'Speaker Configuration' or 'Speaker Levels' settings.
	• Center level set too low on 'Speaker Levels' menu.	
No Dolby Digital/DTS.	• Source's digital output is not connected to a M15 HD digital input.	• Check connections.
	• Source component not configured for multichannel digital output.	• Check source component setup.
M15 HD does not respond to HTRM remote.	• Batteries are flat or incorrectly inserted.	• Check batteries.
	• IR transmitter window on remote or IR A/V Receiver window on M15 HD is obstructed.	• Check IR windows and ensure clear line-of-sight from remote to M15 HD.
	• M15 HD front panel is in very bright sunlight or ambient light.	• Reduce sunlight/room lighting.
M15 HD does not respond to front panel commands or remote control.	• Microprocessor error.	• Power-down the M15 HD via the rear panel Power switch and unplug it from the AC outlet.
	• M15 HD may have over heated.	• Wait five minutes, re-connect and power up.
	• 12V TRIGGER IN/OUT is set to AUTO position.	• Switch 12V TRIGGER IN/OUT to OFF position.

Factory defaults for 120V version only : Press simultaneously **Source** ◀ + **Tone Defeat**

Factory defaults for 230V version only : Press simultaneously **Source** ▶ + **Tone Defeat**

REFERENCE

SPECIFICATIONS

OVERALL SPECIFICATIONS

Line Level Input

Input impedance (R and C)	56 k Ω + 220 pF
Input sensitivity	40 mV (ref. 500 mV out)
Maximum input signal	>8 Vrms
Signal/Noise ratio, A-weighted	>90 dB (ref. 500 mV in 500 mV out, volume set to unity gain)
	>80 dB (ref. 2 V out, Volume maximum)
Channel Separation	>70 dB (ref. 1 kHz/10 kHz)
Frequency response	\pm 0.3 dB (ref. 20 Hz - 20 kHz, Tone Active)
	\pm 0.3 dB (ref. 20 Hz - 20 kHz, Tone Defeat)
Frequency response (subwoofer out)	10 - 200Hz (ref. -3 dB)

Output

Maximum output level	>8 Vrms into 600 Ω
THD (CCIF IMD, DIM 100)	<0.005% (ref. 20 Hz - 20 kHz, 2 V out)

Tone Controls

Treble	\pm 10 dB at 10 kHz (ref. 2V in 2V out)
Bass	\pm 10 dB at 100 Hz (ref. 2V in 2V out)

Power Consumption

Normal operation	80 W
Standby mode	<1 W

DIMENSION AND WEIGHT

Unit dimensions (W x H x D)	435 x 145 x 385 mm (Gross*)
Net weight	13.1 kg
Shipping weight	22 kg

* - Gross dimension includes feet, volume knob and extended rear panel terminals.

Specifications are subject to change without notice. For updated documentation and features, please log onto www.NADelectronics.com for the latest information about M15 HD.

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