Blu-ray Disc<sup>™</sup> player

Owner's Manual





IMPORTANT SAFETY INSTRUCTIONS	3
UNPACKING	5
INSTALLATION LOCATION	5
CLEANING	5
THANK YOU FOR CHOOSING HARMAN KARDON® PRODUCTS!	5
BDT 2/BDT 20 FEATURES	6
SUPPLIED ACCESSORIES	6
FRONT-PANEL CONTROLS	7
REAR-PANEL CONNECTIONS	8
REMOTE CONTROL FUNCTIONS	8
CONNECTING THE PLAYER	10
PREPARING THE REMOTE CONTROL	10
SETTING UP THE PLAYER	11
PLAYING DISCS	14
PLAYING FILES FROM USB DEVICES AND CD DATA DISCS	16
USING PLAYLISTS	18
TROUBLESHOOTING	19
SPECIFICATIONS	20

#### **Important Safety Instructions**

- 1. Read these instructions.
- 2. Keep these instructions.
- 3. Heed all warnings.
- 4. Follow all instructions.
- 5. Do not use this apparatus near water.
- 6. Clean only with a dry cloth.
- 7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- 8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
- 9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- 10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
- 11. Only use attachments/accessories specified by the manufacturer.
- 12. Use only with the cart, stand, tripod, bracket or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 法

- 13. Unplug this apparatus during lightning storms or when unused for long periods of time.
- 14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, or the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
- 15. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the apparatus.

TO RAIN OR MOISTURE

- 16. To completely disconnect this apparatus from the AC Mains, disconnect the power supply cord plug from the AC receptacle.
- 17. The mains plug of the power supply cord shall remain readily operable.
- 18. Do not expose batteries to excessive heat such as sunshine, fire or the like.



IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE

WITHIN THE PRODUCT'S ENCLOSURE THAT MAYBE OF SUFFICIENT MAGNITUDE TO CONSTITUTEA

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS

SHOCK N



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 PRODUCT.

SEE MARKING ON BACK OF PRODUCT.

### **FCC** Regulations

RISK OF ELECTRIC SHOCK TO PERSONS

#### **FCC Information For Users**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference; and (2) this device must accept any interference received, including interference that may cause undesired operation.

#### Radio and Television Interference

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference to radio or television reception, which can be determined by turning the equipment off and then on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver.
- Connect the equipment to a different outlet so that the equipment and receiver are on different branch circuits.
- Consult the dealer or an experienced radio/TV technician for help.

**NOTE:** Changes or modifications not expressly approved by Harman could void the user's authority to operate the equipment.

#### IC Statement and Warning

This Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

#### For Canadian Model

This Class B digital apparatus complies with Canadian ICES-003. For models having a power cord with a polarized plug:

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

#### Pour le modèle canadien :

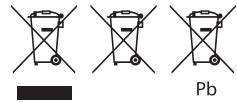
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. Sur les modèles dont la fiche est polarisee:

ATTENTION: Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

#### CLASS 1 LASER PRODUCT KLASSE 1 LASER PRODUKT LUOKAN 1 LASER LAITE KLASS 1 LASER APPARAT CLASSE 1 PRODUIT LASER

**CAUTION:** This product uses a laser system. To prevent direct exposure to the laser beam, do not open the cabinet enclosure or defeat any of the safety mechanisms provided for your protection. DO NOT STARE INTO THE LASER BEAM. To ensure proper use of this product, please read the owner's manual carefully and retain it for future use. Should the unit require maintenance or repair, please contact your local Harman Kardon service center. Refer servicing to qualified personnel only.

#### Instructions for Users on Removal and Disposal of Used Batteries. Specifications of Included Battery Types.



These symbols shown on the product or the packaging or in the manual or separate information sheet mean that the product itself, as well as the batteries included or built into the product, should never be thrown away with general household waste. Take them to applicable collection points, where proper treatment, recycling and recovery takes place, in accordance with national or local legislation, or European Directives 2002/96/EC and 2006/66/EC.

Correct handling of the product and batteries to be disposed saves resources and prevents possible negative effects on the environment or human health.

The batteries included with your equipment may be alkaline, carbon zinc/manganese or lithium (button cells) type. All types should be disposed of according to the above instructions.

To remove the batteries from your equipment or remote control, reverse the procedure described for inserting batteries in the owner's manual.

For products with a built-in battery that lasts for the lifetime of the product, removal may not be possible for the user. In this case, recycling or recovery centers handle the dismantling of the product and the removal of the battery. If, for any reason, it becomes necessary to replace such a battery, this procedure must be performed by authorized service centers.

ENGLISH

#### Unpacking

The carton and shipping materials used to protect your new player during shipment were specially designed to cushion it from shock and vibration. We suggest that you save the carton and packing materials for use in shipping if you move or if the unit ever needs repair.

To minimize the size of the carton in storage, you may wish to flatten it. You can do it by carefully slitting the tape seams on the carton's bottom and collapsing it. You can store cardboard inserts in the same manner. Packing materials that cannot be collapsed should be saved along with the carton in a plastic bag.

If you do not wish to save the packaging materials, please note that the carton and other sections of the shipping-protection materials are recyclable. Please respect the environment and discard those materials at a local recycling center.

Remove the protective plastic film from the front-panel lens. Leaving the film in place will affect the performance of your remote control.

#### **Installation Location**

To ensure proper operation and to avoid the potential for safety hazards, place the unit on a firm and level surface. When placing the unit on a shelf, be certain that the shelf and any mounting hardware can support the weight of the product.

Provide proper space both above and below the unit for ventilation. If this product will be installed in a cabinet or other enclosed area, make certain that there is sufficient air movement within the area. Under some circumstances, a fan may be required.

Do not place the unit directly on a carpeted surface.

Avoid installation in extremely hot or cold locations, or in an area that is exposed to direct sunlight or heating equipment.

Avoid moist or humid locations.

Do not obstruct the ventilation slots on the top and sides of the unit or place objects directly over or next to them.

Do not place the BDT 2/BDT 20 directly on top of a product that generates excessive heat.

Due to the heat generated by the player and other components in your system, there is the remote possibility that the rubber padding on the bottom of the unit's feet may leave marks on certain wood or wood-veneer materials. Use caution when placing the unit on soft woods or other materials that heat or heavy objects may damage. Some surface finishes may be particularly sensitive to absorbing such marks, due to a variety of factors beyond Harman Kardon control, including the nature of the finish, cleaning materials used, normal heat and vibration caused by the use of the product, or other factors. Your warranty will not cover this type of damage to furniture, so exercise caution in choosing an installation location for the component and in performing normal maintenance practices.

Your new Harman Kardon Blu-ray Disc<sup>™</sup> player requires a broadband Internet connection for BD-Live<sup>™</sup> interactivity.

#### Cleaning

When the unit gets dirty, wipe it with a clean, soft, dry cloth. If necessary, and only after unplugging the AC power cord, wipe it with a soft cloth dampened with mild soapy water, then a fresh cloth with clean water. Wipe it dry immediately with a dry cloth. NEVER use benzene, aerosol cleaners, paint thinner, alcohol or any other volatile cleaning agent. Do not use abrasive cleaners, as they may damage the finish of metal parts. Avoid spraying insecticide near the unit.

Thank You for Choosing Harman Kardon® Products!

For more than fifty years, Harman Kardon products have been at the cutting edge of audio and home theater technology. The first audio receiver wore a Harman Kardon badge, and the company has been producing innovative entertainment products ever since. The BDT 2/BDT 20 Blu-ray Disc<sup>™</sup> player is the latest component offered in that proud tradition.

Incorporating the latest high-definition audio and video processing technologies, the BDT 2/BDT 20 is an essential part of a modern home theater system. It plays your favorite Blu-ray Disc movies with up to 1080/24p video resolution when available on the disc, thanks to HDMI<sup>™</sup> (High-Definition Multimedia Interface) v.1.3a with 30/36-bit Deep Color connectivity.

Connect the BDT 2/BDT 20 to the Internet, and BD-Live™ interactivity (available with compatible discs) delivers additional features, updates and news of live events. Even older DVD-Video discs will deliver outstanding picture quality when they are upscaled to 1080p video resolution.

Yet with all of its sophistication, the BDT 2/BDT 20 is simple to operate. Its controls are similar to those for DVD players, and its enhanced on-screen menu system guides you every step of the way. Easy to use and delivering outstanding performance, the BDT 2/BDT 20 is sure to provide enjoyment for many years to come.

If you have any questions about this product, its installation or its operation, please contact your retailer or custom installer, or visit the Harman Kardon Web site at www.harmankardon.com.

**NOTE**: Your Blu-ray Disc player is designed and manufactured for compatibility with Region Management Information that is encoded on most Blu-ray Disc recordings and DVD recordings:

 BDT 2 units are designed only for playback of discs with Blu-Ray Disc Region Code A and DVD Region Code 1 information, or for discs that do not contain any Region Code information.



• **BDT 20 units** are designed only for playback of discs with Blu-ray Disc Region Code B and DVD Region Code 2 information, or for discs that do not contain Region Code information.

If there is a Region Code on a disc other than the one your BDT player is designed for, it will not play in your BDT player.

Please register your product on our Web site at www.harmankardon.com.

Note: You'll need the product's serial number. At the same time, you can choose to be notified about our new products and/or special promotions.

#### **BDT 2/BDT 20 Features**

#### Connectivity

- One HDMI ver. 1.3a with 30/36-bit Deep Color connection
- One coaxial digital-audio output
- One USB 2.0 port that plays video, audio and photo content from USB devices
- Connects to your LAN (local area network) for BD-Live interactivity via the Internet

#### Ease of Use

- On-screen menu system
- Dot-matrix front-panel information display
- Full-function remote control

#### **Disc Player Features**

- Region coding: Blu-ray Disc Region A/DVD Region 1 (BDT 2 models);
- Blu-ray Disc Region B/DVD Region 2 (BDT 20 models)
- Plays five-inch (12cm) and 3-inch (8cm) discs
- Video formats supported: BD-Video (single-layer or double-layer), DVD-Video, DVD+R/+RW, DVD-R/-RW, CDDA (CD digital audio), CD-R/RW
- Audio formats supported: Dolby<sup>®</sup> Digital, Dolby Digital Plus, Dolby TrueHD, DTS<sup>®</sup> Digital, DTS-HD<sup>™</sup> High Resolution Audio, DTS-HD Master Audio,<sup>™</sup> PCM, WMA (DRMfree version only): WMA9, CBR @192kbps, VBR @ 355kbps, MP3: 32kbps – 320kbps bitrates, including variable bitrate encoding
- Supports JPEG still-image format
- Supports BD-Live interactivity
- Video upscaling to 720p and 1080p
- Progressive-scan video output
- JPEG resolution supported: five megapixels, 5MB file size
- JPEG still-image rotation in 90-degree increments
- Thumbnail JPEG still-image menu
- Fast play rates: 2x, 4x, 8x, 16x, 32x
- Slow play rates: 1/2x, 1/4x, 1/8x, 1/16x
- Random play (CDs only)
- Repeat play
- Parental-control system with user-programmable password
- Disc recognition for up to 10 discs
- Aspect-ratio adjustment

#### **Supplied Accessories**

If any of these items are missing, please contact Harman Kardon Customer Service via www.harmankardon.com.



(Note: The power cord included will vary depending on where the unit is sold.)

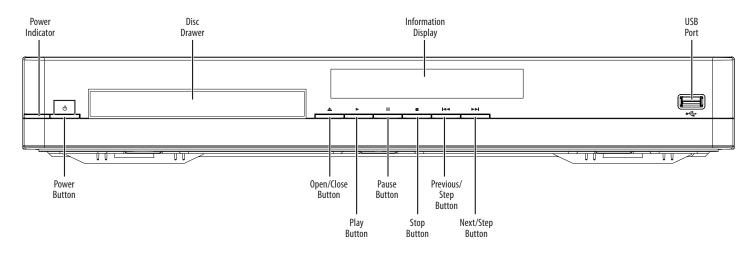






Two AA batteries

#### **Front-Panel Controls**



**Power Indicator:** When the BDT 2/BDT 20 is plugged into AC power and its Main Power switch is set to "On," the LED turns *amber* to indicate that the player is in Standby mode. When you turn the BDT 2/BDT 20 on (by the Power button or the remote control), the LED turns *white*.

**Power Button:** This button toggles the BDT 2/BDT 20 between the On and Standby modes.

**Disc Drawer:** Insert a compatible disc into the drawer. The BDT 2/BDT 20 will accept 5-inch (12cm) and 3-inch (8cm) discs.

**Open/Close Button:** Press this button to open and close the disc drawer. Before pressing this button, make sure that no objects are blocking the disc drawer.

**Play Button:** Press this button to play a disc that has been loaded into the player's disc drawer. Pressing this button when viewing photos begins a slide show with all photos in the current folder.

**Pause Button:** Press this button to pause a disc that is playing. Pressing the button while a Blu-ray Disc program or DVD program is playing will freeze-frame on the current video frame. Pressing the button while the disc is paused will resume play. Pressing this button while viewing photos freezes the current photo on the screen.

**Stop Button:** Press this button to stop playback. (With some discs, pressing the Play button will resume playback from the point where it stopped.) Press the Stop button twice to stop playback fully.

**Information Display:** Various messages appear on this display in response to commands and to provide information about the BDT player's status as described throughout this manual.

**Previous/Step Button:** Press this button once to skip to the beginning of the track or chapter being played — or, when viewing photos, to the previous photo. Press the button twice to skip to the beginning of the previous chapter or track. Press the button repeatedly to skip back through the previous chapters or tracks. When video content is playing, press the Pause button, after which each press of the Previous/Step button will step the video back by one frame.

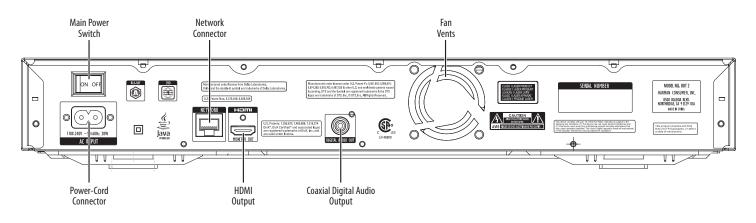
**Next/Step Button:** Press this button once to skip to the beginning of the next track or chapter – or, when viewing photos, to the next photo. Press the button repeatedly to skip ahead through the subsequent chapters or tracks. When video content is playing, press the Pause button, after which each press of the Next/Step button will step the video forward by one frame.

**USB Port:** Gently insert a USB flash drive or an HDD disk drive with a USB Standard-A cable to this port.

### IMPORTANT: Do not connect a PC or other USB host/controller to this port, or you may damage both the BDT 2/BDT 20 and your device.

Orient the device's plug so it fits all the way into the BDT 2/BDT 20's USB connector. You may insert or remove the device at any time – there is no installation or ejection procedure.

#### **Rear-Panel Connections**



**NOTE:** See *Connecting the Player*, on page 10, for detailed information about making connections.

**Main Power Switch:** This mechanical switch turns the BDT 2/BDT 20's power supply on or off. After you have made and verified all connections (see *Connecting the Player*, on page 10), set this switch to the "On" position. If you will not be using the player for an extended period of time, you can set this switch to the "Off" position to save energy.

**Power-Cord Connector:** After you have made and verified all other connections, plug the supplied AC power cord into this input and into an *unswitched* AC outlet.

**Network Connector:** To be able to use the BD-Live feature, connect this port to your local area network (LAN) using a Cat. 5/Cat. 5e/RJ45 network cable. See *BD-Live Interactivity*, on page 15, for more information.

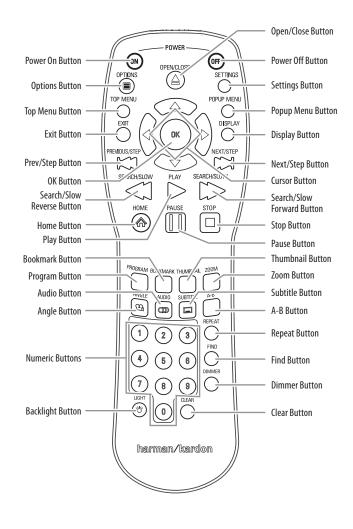
**HDMI Output (HDMI ver. 1.3a):** Connect the BDT player's HDMI output to the HDMI input on your TV, audio/video receiver or surround-sound processor. The HDMI cable transmits both video and audio, so if you're connecting it directly to the TV and are connecting the BDT 2/BDT 20's coaxial digital audio output to a home theater audio system, we recommend that you disable the BDT 2/BDT 20's HDMI Audio Out to take full advantage of the home theater audio system's superior audio performance. See *Audio Settings: Audio Output*, on page 13, for more information.

**IMPORTANT:** Your BDT 2/BDT 20 is in compliance with HDCP (High-Definition Copy Protection). Your TV must also be HDCP-compliant to be used with the player's HDMI output. For the best results, we do not recommend HDMI connections in excess of ten feet without a repeater. If your TV has a DVI input, you may use an optional HDMI-to-DVI cable or adapter for the video connection to the TV. (The DVI connection is video-only.)

**Coaxial Digital Audio Output:** Connect this output to the coaxial digital audio input of your audio/video receiver or surround-sound decoder.

Fan Vents: The BDT 2/BDT 20 has a built-in fan to provide cooling air. To insure proper operation, make sure that these vents are not blocked.

#### **Remote Control Functions**



**Open/Close Button:** Press this button to open and close the disc drawer. Before pressing this button, make sure that no objects are blocking the disc drawer.

**Power On Button:** Press this button when the BDT 2/BDT 20 is in the Standby mode to turn it on.

**Power Off Button:** Press this button when the BDT 2/BDT 20 is on to place it in the Standby mode.

**Options Button:** Press this button to display any available options for the item that is active at the time you press the button.

**Settings Button:** Press this button to display the player's Settings menu. See *Settings Menus*, on page 12, for more information.

**Top Menu Button:** Press this button to display the top menu of the Blu-ray Disc recording or DVD that is playing. NOTE: This feature is disc-dependent. Not all discs have top menus. If the disc has no top menu, pressing the Top Menu button may display the disc menu, depending on how the disc's menu system was authored.

**Popup Menu Button:** Pressing this button while playing a Blu-ray Disc recording or DVD displays its disc menu. NOTE: This feature is disc-dependent, and may not work with all discs.

**Exit Button:** Press this button to return to the previous menu or menu level.

**Display Button:** Press this button to activate a bar display containing information about the disc or program that is currently playing.

**Previous/Step Button:** Press this button once to skip to the beginning of the current track – or when viewing photos, to the previous photo. Press the button twice to skip to the beginning of the previous track. Press the button repeatedly to step through the previous chapters or tracks. When video content is playing, press the Pause button, after which each press of the Previous/Step button will reverse the video by one frame.

**Next/Step Button:** Press this button once to skip to the beginning of the next track or when viewing photos, to the next photo. Press the button repeatedly to step through the previous chapters or tracks. When video content is playing, press the Pause button first; each subsequent press of the Next/Step button advances the video one frame.

**OK Button:** Press this button to select a highlighted item on the on-screen menu.

**Cursor Buttons:** Press these buttons to navigate through items on the on-screen menu.

**Search/Slow Reverse Button**: Press this button to reverse through the current disc track. For Blu-ray Disc programs and DVD programs, each press cycles through 2x, 4x, 8x, 16x and 32x reverse speed. Pressing the button while a Blu-ray Disc recording or DVD is paused will reverse through the chapter in slow motion. Each press cycles through 1/2, 1/4, 1/8 and 1/16 normal speed.

**Search/Slow Forward Button:** Press this button to fast-forward through a disc track. For Blu-ray Disc recordings and DVDs, each press cycles through 2x, 4x, 8x, 16x and 32x normal speed. Pressing the button while a Blu-ray Disc recording or DVD is paused will play through the chapter in slow motion. Each press cycles through 1/2, 1/4, 1/8 and 1/16 normal speed.

**Home Button:** Press this button to return the on-screen display to the Home screen from whatever screen is active when the button is pressed.

**Stop Button:** Press this button to stop playback. (Pressing the Play button will resume playback from the point where it stopped.) Press the Stop button twice to stop playback fully. NOTE: Some settings and functions will only be available when the player is fully stopped.

**Play Button:** Press this button to play a disc that has been loaded into the player's disc drawer or a music file that has been highlighted on the on-screen menu. Pressing this button when viewing photos begins a slide show of the photos.

**Pause Button:** Press this button to pause a disc or music file that is playing. Pressing the button while a Blu-ray Disc program or DVD program is playing will freeze-frame on the current video frame. Pressing the button while the disc is paused will resume play. Pressing this button while viewing photos freezes the current photo on the screen.

**Bookmark (green) Button:** Press this button to activate the Bookmark function. See *Bookmark Function*, on page 15, for more information.

**Thumbnail (yellow) Button:** Press this button while playing a photo slide show to display thumbnail images of all photos in the active directory.

**Program (red) Button:** Press this button to create a programmed playback list for the disc that is playing. See *Programmed Play*, on page 15, for more information.

**Zoom (blue) Button:** Press this button to zoom in on or recede from a video image or slide. Use the Navigation buttons to zoom in on different sections of the image. NOTE: This function is disc-dependent. Not all discs allow this function.

**Red, green, yellow and blue buttons:** When the BDT 2/BDT 20 is playing a Blu-ray Disc recording, these buttons can activate features and menus that may vary from disc to disc. Refer to the menu instructions for each particular disc for more information. NOTE: These Blu-ray Disc functions may override the Bookmark, Thumbnail, Program and Zoom functions.

Audio Button: Press this button to toggle through the different audio tracks that are available for a disc. NOTE: This feature is disc-dependent. Not all discs feature multiple audio tracks and allow you to change audio tracks.

**Subtitle Button:** Press this button to toggle through the different subtitle options that are available for the current disc. NOTE: This feature is disc-dependent. Not all discs feature multiple subtitle options.

**Angle Button:** Press this button to toggle through the multiple camera-angle options for the current disc. NOTE: This feature is disc-dependent. Not all discs feature multiple camera angles and allow you to change camera angles.

**A-B Button:** Press this button to activate the A-B repeat mode. The first press sets the "A" repeat point; the second press sets the "B" repeat point and begins repeating the section of the program between the two points. Pressing the A-B button while the A-B repeat mode is active cancels the A-B repeat mode.

**Repeat Button:** When the BDT 2/BDT 20 is playing a Blu-ray Disc recording or DVD, press this button to cycle through the following repeat modes: Chapter, Title, All, Off. When the BDT 2/BDT 20 is playing a CD, this button cycles through the following repeat modes: Track, All, Off.

Numeric Buttons: Press these buttons to enter numbers for various items.

**Find Button:** Press this button during disc playback to activate the search function, which allows you to jump to a specific location on the disc. You can find a location by title, chapter or elapsed time.

**Dimmer Button:** Press this button to toggle through the different brightness levels for the player's front-panel display: 100%, 50%, 25%, Auto/Off. When the brightness is set to Off, the display will temporarily return to full brightness whenever you press any button on the remote.

**Backlight Button:** Press this button to activate the remote's backlight. The backlight will remain on for a few seconds and then will turn off to conserve battery power.

**Clear Button:** Press this button to clear an incorrect entry made using the Numeric buttons.

#### **Connecting the Player**

#### **HDMI** Connection

#### If Your Receiver/Processor Has an HDMI Connection

Use the supplied HDMI cable to connect the player's HDMI output to your receiver/ processor's HDMI input. Use another HDMI cable to connect your receiver/processor's HDMI output to your TV's HDMI input.



#### If Your Receiver/Processor Does Not Have an HDMI Connection

Use the supplied HDMI cable to connect the player's HDMI output directly to your TV's HDMI input.

#### **Coaxial Digital Audio Output**

If you did not connect the BDT 2/BDT 20's HDMI output to your receiver/processor, connect the Coaxial Digital Audio Output to a coaxial digital input on your A/V receiver/processor.



#### **Network Connection**

Use a Cat. 5/RJ45 network cable (not supplied) to connect the BDT 2/BDT 20's Network Connector directly to a network router, a network switch, a network modem, or to an Ethernet network wall jack that has Internet access. NOTE: The BDT 2/BDT 20 cannot access content on other networked devices. The network connection enables the BDT 2/BDT 20's BD-Live features. See *BD-Live Interactivity*, on page 15, for more information.

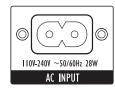


**IMPORTANT:** The BDT 2/BDT 20's network connection will not support a proxy network.

#### **Power-Cord Connector**

The BDT 2/BDT 20 comes with a detachable AC power cord. This type of cord makes it easier for you to install and connect all other system wiring to the player's rear panel. **NOTES**:

- The power requirement for the BDT 2/BDT 20 is 120 240V AC, 50/60Hz, 25W.
   Connecting to a power source other than the one listed may damage the player or cause abnormal operation.
- Before connecting the AC power cord to a wall outlet, confirm that all of the other connections have been made correctly.
- Connect the female end of the BDT 2/BDT 20's detachable power cord to the player's Power-Cord Connector. Plug the other end into a working, unswitched AC outlet.

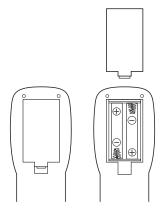


Set the BDT 2/BDT 20's Main Power switch in the "On" position. The player's Power indicator will turn red, indicating that the player is in the Standby mode.

#### **Preparing the Remote Control**

#### **Installing the Batteries**

Your BDT 2/BDT 20 remote control uses two AA batteries (supplied). Insert the batteries as shown in the illustration, making sure to observe the correct polarity.



#### **Using the Remote Control**

When using the remote, remember to aim it toward the player's front panel. Make sure that no objects, such as furniture, block the remote's view of the player. Bright lights, fluorescent lights, and plasma video displays may interfere with the function of the remote.

- The remote has a range of about 20 feet (6.1m), depending on the lighting conditions.
- You can use the remote at an angle of up to 30° from either side of the player.
- If the remote does not seem to be operating properly, make sure that the batteries are inserted correctly. If the remote still does not operate properly, replace both batteries with new ones.

#### Setting Up the Player

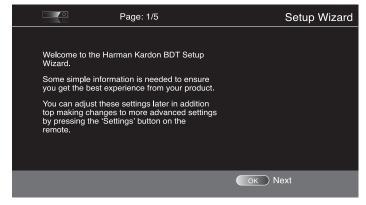
**NOTE:** The menu screens shown in this manual are for illustrative purposes and may differ somewhat from the actual displays.

To set up your BDT 2/BDT 20, you will use the remote to navigate through all of the on-screen menus and make selections from them.

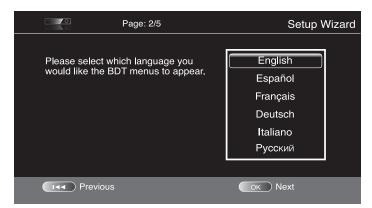
- Use the Cursor Up/Down buttons to navigate through the menu list. When an item is highlighted, a border will appear around it.
- To select a highlighted item, press the OK button. The screen will change depending on your selection.
- To return to the previous screen, press the Exit button.

#### Setup Wizard

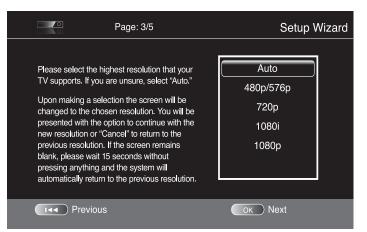
When you turn your BDT 2/BDT 20 on for the first time, the on-screen menu will display the Setup Wizard.



Before you can use your BDT 2/BDT 20, you need to set the language and make a few basic settings so that the player's video output will work properly with your TV. Press the OK button and the Wizard's language screen will appear.



After setting the language you want the on-screen menus to use, press the OK button, and the Wizard's TV-resolution screen will appear.



After selecting your TV's highest resolution, press the OK button and the Wizard's aspectratio screen will appear. If you're unsure of your TV's highest resolution, select "Auto," and the player will automatically select the optimal resolution.

0	Page: 4/5	Setup V	Vizard
ase select the fits your TV.	best aspect ratio	16:9 Full 16:9 Normal 4:3 Pan & Scan 4:3 Letterbox	
Previous		ок Next	

After selecting the aspect ratio that best fits your TV, press the OK button to save your setting, and then press it again to exit the Setup Wizard.

#### **Settings Menus**

Pressing the remote's Settings button displays the player's settings menus, which allow you to configure the receiver's various functions. Use the remote's Cursor Left/ Right buttons to change from one menu to another, use the Cursor Up/Down buttons to navigate through the lists that appear on the various screens, and use the OK button to select highlighted items. Press the Exit button at any time to return to the previous screen.



#### **General Settings**



System: The System option allows you to set the following system features:

**Front Panel Brightness:** This option sets the brightness of the BDT 2/BDT 20's information display.

- Screen Saver: To prevent image burn-in, we recommended activating the Screen Saver when using the BDT 2/BDT 20 with a CRT or plasma TV.
- Auto Power Off: This option sets the amount of time the BDT 2/BDT 20 remains on while idle until it automatically enters the Standby mode.
- **System Upgrade:** Select this option when you want to install a firmware upgrade for your BDT 2/BDT 20 that you've downloaded from a Harman Kardon source.
- Setup Wizard: This option activates the receiver's Setup Wizard (see Setup Wizard, on page 11).
- **BD-Live Storage:** This option lets you set up how the BDT 2/BDT 20 will handle stored BD-Live content. You can choose to store the content either in the receiver's internal memory or on a USB memory device via the BDT 2/BDT 20's USB port. See *BD-Live Interactivity*, on page 15, for more information.
- **Restore Defaults:** This option restores the BDT 2/BDT 20 to its factory default setting values. NOTE: This option will also reset the parental-control password back to the factory default of 0000. See *Parental Control*, on this page.

**Language:** This setting lets you set the language for the disc player and the disc menus, the preferred audio language and the preferred subtitle language.

**NOTE**: If the selected language is not available on the particular disc being played, use the disc's menu to set the language from those available on the disc.

**Playback:** The Playback option allows you to set the following disc playback features:

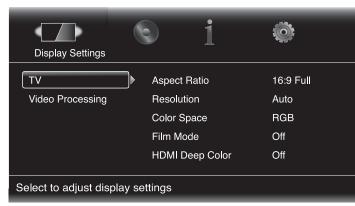
- Show Angle Icon: This option lets you select whether or not the angle icon will
  automatically be displayed when a disc with multiple camera angles is played.
- Auto Play: This option lets you select whether discs will automatically begin playing when they are loaded into the player.
- Show PIP Icon: This option lets you select whether or not the picture-in-picture icon will automatically be displayed when you play a Blu-ray Disc recording with picture-in-picture content.
- Show Secondary Audio Icon: This option lets you select whether or not the Secondary Audio icon will automatically be displayed when you play a Blu-ray Disc recording with secondary audio content.
- **Disc Resume:** This option lets you select whether or not a disc that has been ejected while playing will resume play from that location the next time it is inserted into the disc player.
- DivX® VOD DRM: This option displays your player's DivX registration information.

**Parental Control:** This option lets you set the player's parental-control password and the level of parental control you want active. NOTE: The default password is 0000.

Network: This option allows you to set the following network features:

- Information: This option displays your network's IP, subnet mask, gateway and DNS addresses.
- Test Connection: This option tests for a proper network connection to the BDT 2/BDT 20.
- IP Configuration: This option lets you enter your network settings, either automatically or manually. Unless your network administrator instructs you otherwise, you should use the Auto option.
- **BD-Live Connection:** This option lets you set the player's BD-Live connection preferences. "Always Allow" always allows downloading of BD-Live content. "Limit" allows content downloading only if the disc is officially BD-Live certified. "Prohibited" does not allow any BD-Live access. See *BD-Live Interactivity*, on page 15, for more information.
- **Proxy Setting:** "Enabled" allows you to select and set the Proxy Host and Proxy Port if your network requires a proxy setting. "Disabled" bypasses any Proxy Host and Proxy Port settings and prevents their selection. This option is for advanced users only and in most cases should be left set to "Disabled."

#### **Display Settings**



TV: This option allows you to set the following display parameters:

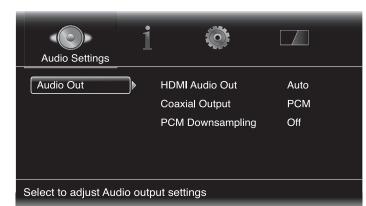
- Aspect Ratio: This option lets you select how you want 4:3 programs displayed on a 16:9 TV, or 16:9 programs displayed on a 4:3 TV. "16:9 Full" stretches 4:3 material to fill a 16:9 TV screen. "16:9 Normal" displays 4:3 programming on a 16:9 TV with black boxes on either side of the image, preserving its original visual composition without distortion. "4:3 Pan & Scan" zooms in on widescreen material to fill a 4:3 screen. "4:3 Letterbox" displays 16:9 programming with black bars above and below the photo, preserving the program's original visual composition without distortion.
- Resolution: This option lets you select the video-output resolution of the BDT 2/BDT 20. The "Auto" setting will automatically select the best resolution for your TV.
- Color Space: This option lets you select a predefined color space for the video photo.
- Film Mode: If your TV can handle a 1080p 24Hz signal (that is, if it is 1080p resolution and has a video-refresh rate that is a whole-number multiple of 24), set this to "On" to get maximum resolution from Blu-ray Disc content mastered at 24 frames per second. If your display cannot handle a 1080p/24Hz signal, set this option to "Off," and the BDT 2/BDT 20 will upconvert 24-frame-per-second film material to the standard video 30Hz refresh rate.
- HDMI Deep Color: This option allows you to adjust the resolution of color output to your TV. If your TV accepts Deep Color, this option allows your TV to display an enhanced color palette.
  - Auto: The BDT 2/BDT 20 automatically selects the highest color resolution that your TV accepts (36 bits or 30 bits).
  - On: The BDT 2/BDT 20 always outputs 36-bit Deep Color.
  - Off: The BDT 2/BDT 20 does not output Deep Color (color resolution remains at 24 bits).

Video Processing: This option allows you to set the BDT 2/BDT 20's internal video processing.

- Video Mode: This option lets you select a preset video-processing option to optimize the picture for the current program by adjusting the brightness, contrast, color and sharpness.
- Standard: Neutral control settings
- Vivid: For video games
- Cinema: For movies and many television broadcasts
- Custom: This option lets you adjust the photo settings manually. The Brightness, Saturation (color saturation), Hue and Contrast settings appear as sliders. The default setting for each adjustment is 0. Use the Cursor Left/Right buttons to change each setting's value.

#### Audio Settings

•



Audio Output: This option lets you set the following items:

- HDMI Audio Out: In addition to digital video signals, the BDT 2/BDT 20's HDMI connection also carries digital audio signals. Four settings are available:
  - Auto: This option causes the BDT player's HDMI output to output the digital audio format that best matches the surround-sound decoding capabilities of the component to which it's connected.
  - Bitstream Native: This option outputs the program in its native audio format via the HDMI output.
  - PCM: This option outputs a two-channel downmix derived from the program's native audio format via the HDMI output.
- Off: This option turns the BDT player's HDMI audio output off. If you are using the player's HDMI connection for video only (you have connected the player's HDMI output directly to your TV and have connected the BDT 2/BDT 20 coaxial digital audio output to a home theater audio system), we recommend that you set the HDMI Audio Out to "Off."
- **Coaxial Output:** If you are using the BDT player's HDMI connection for video only and have connected its coaxial digital output to your home theater audio system, select one of these three options:
  - Bitstream Native: This option outputs the program's native digital audio soundtrack via the coaxial digital output.
  - PCM: This option outputs a two-channel downmix of the original digitalsoundtrack via the coaxial digital output. (See PCM Downsampling, below.)
  - Transcode: This option transcodes a program's lossless format (Dolby TrueHD or DTS-HD Master Audio) program to a lossy format and outputs it via the Coaxial Digital Output.
- PCM Downsampling: This option sets the sampling rate of PCM two-channel downmixed signal. Set this option to the highest sampling rate that the connected component can handle. NOTE: If the component can handle a 192kHz sampling rate, set this option to "Off," which will pass 192kHz sampled material without downsampling.

#### Information Menu



The Information menu will display the player's software/firmware version number and the player's factory-assigned network MAC Address. This screen is for information only and allows no user adjustments.

#### **Playing Discs**

#### **Disc Handling Precautions**

• To keep the disc clean, handle the disc by its edge. Do not touch the surface.



- Do not stick paper or tape on the disc. If there is glue (or a similar substance) on the disc, remove the substance completely before using the disc.
- Do not expose the disc to direct sunlight or heat sources such as hot air ducts, or leave it in a car parked in direct sunlight, as there can be a considerable rise in temperature inside the car.
- After playing, store the disc in its case.
- Do not write on the label side with a ballpoint pen or other sharp writing utensils.
- Be careful not to drop or bend the disc.

#### **Disc Cleaning Precautions**

- Before playing, clean the disc with a cleaning cloth. Wipe the disc from the center out.
- Do not use solvents such as benzene, paint thinner, commercially available cleaners or anti-static spray intended for vinyl LPs.

#### **Regional Coding**

BDT 2 players are designed only for playback of discs with Blu-Ray Disc Region Code A and DVD Region Code 1 information, or for discs that do not contain any Region Code information. BDT 20 players are designed only for playback of discs with Blu-ray Disc Region Code B and DVD Region Code 2 information, or for discs that do not contain Region Code information.

If there is a Region Code on a disc other than the one your BDT player is designed for, it will not play in your BDT player.

#### Copyright

Audio-visual material may consist of copyrighted works, which must not be recorded without the permission of the owner of the copyright. Please refer to relevant laws covering copyright protection.

#### **Copy Protection**

Your BDT player is in compliance with HDCP (High-Definition Copy Protection). A video display connected via the HDMI output must be HDCP-compliant.

The BDT player incorporates copy-protection technology. On Blu-ray Disc media and DVD discs that include a copy-protection code, if the contents of the disc are copied using a VCR, the copy-protection code prevents the videotape copy from playing normally.

#### **Supported Disc Formats**

The BDT player can play the following types of discs (in 5"/12cm and 3"/8cm size):

- BD-Video (single-layer or double-layer)
- DVD-Video
- DVD+R/+RW
- DVD-R/-RW
- CDDA (CD digital audio)
- CD-R/RW

NOTE: The compatibility and performance of dual-layer discs is not guaranteed.

### Supported Media Codecs

The disc player can play media recorded in the following audio/video codecs:

- MPEG 1, Layer 1
- MPEG 2, Layer 2
- MPEG 2, Layer 3
- H.264
- VC-1
- AAC
- MP3 (from CD-R/RW, DVD+R/+RW, BD-R/RE and USB)
- JPEG (from CD-R/RW, DVD+R/+RW, BD-R/RE and USB)
- DivX 3.x/4.x/5.x (from CD-R/RW, DVD+R/+RW and USB)
- WMA (WMA9, CBR at 192kbps, VBR at 355kbps, DRM-free)

NOTE: Due to differences in the formats of certain discs, it is possible that some discs may include a mix of features, some of which are not compatible with the disc player. Similarly, although Blu-ray Disc recordings and DVDs are capable of a wide range of features, not all discs include every capability of its system. For example, although the player is compatible with multi-angle discs, that feature operates only when the disc is specially encoded for multiple-angle play. To make certain that a specific feature or soundtrack option is available, please check the options noted on the disc jacket.

Playback capability of recordable discs may vary due to variations in the quality of the disc and the recorder used to create the disc.

#### Loading and Playing Discs

Press the Open/Close button to open the disc drawer and insert the disc into the drawer. Press the Open/Close button again to close the disc drawer.

- Do not load more than one disc into the disc drawer.
- Do not load the disc upside down.

After loading a disc into the player, press the Play button to begin playback.

Use the Play, Pause, Stop, Prev/Step, Next/Step, Search Down/Slow and Search Up/ Slow buttons to control disc playback. See *Remote Control Functions*, on page 9, for more information about the functions of these buttons.

#### **Playback Features**

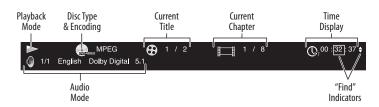
**Repeat:** When you are playing a Blu-ray Disc recording or DVD, pressing the Repeat button cycles through the following repeat modes: Chapter, Title, All, Off. When you are playing a CD, this button cycles through the following repeat modes: Track, All, Off.

**A-B:** When you are playing a Blu-ray Disc recording, DVD or music CD, pressing the A-B button places the player into the A-B repeat mode. The first press sets the "A" repeat point; the second press sets the "B" repeat point and begins repeating the section of the disc between the two points. Pressing the A-B button while the player is in the A-B repeat mode takes the player out of that mode. NOTE: Not all Blu-ray Disc recording allow A-B repeat.

**Find:** Pressing the Find button during disc playback activates the search function, allowing you to jump to a specific location on the disc. You can find a location by title, chapter or time. See *Top Menu Button*, on page 9, for more information. NOTE: If you are playing a disc that does not allow searching by title, use the disc menu to change titles.

**Options:** Pressing the Options button displays any available options for the disc that is currently playing. Blu-ray Disc options include title, chapter, time display, audio options, angle options and subtitle options. DVD disc options include title, chapter, time display, playback modes, audio options and angle options. Audio CD options include track selection, time display, playback modes, bitrate, instant search and instant replay.

**Display Button:** When you are playing Blu-ray Disc recordings and DVDs, pressing the Display button toggles the information bar on and off.



**Top Menu Button**: Displays the top menu for the Blu-ray Disc recording or DVD that is currently playing. NOTE: This feature is disc-dependent. Not all DVDs have top menus. If a DVD that you are playing has no top menu, pressing the Top Menu button may display the disc menu, depending on how the disc's menu system was authored.

**Popup Button**: Pressing this button while playing a Blu-ray Disc recording or DVD displays the disc menu.

**Bookmark Function**: The bookmark function lets you mark up to 12 locations on the disc that is currently playing. Press the Bookmark button to mark the current location on the disc. To play the disc from one of your selected bookmark locations, hold the Bookmark button to display the bookmark list. Use the Navigation Left/Right buttons to select the desired bookmark and press the OK button to play the disc from that location.

NOTE: The bookmark function is disc-dependent. Not all discs allow bookmark operation.

**Programmed Play**: This option lets you create a programmed playlist for a disc that is inserted in the BDT 2/BDT 20. The program function works for CDs, DVDs and Blu-ray Disc recordings.

1. Press the Program button. The Program screen will appear (CD program screen is shown below).

Page: 1/	Program
CD	Track Total: 15
1 Track: 10 6	11
2 Track: 05 7	12
3 8	13
4 9	14
5 10	15
	AR Clear EXIT Stop

- Press the OK button and use the Navigation Up/Down buttons to select the title on the disc (Blu-ray Disc/DVD) or track (CD) for your first program entry. NOTE: Not all Bluray Disc recordings allow selection by title.
- 3. Press the Navigation Right button and use the Navigation Up/Down buttons to select the chapter for your first program entry (Blu-ray Disc/DVD only).
- 4. Repeat steps 2 3 for every entry in your programmed list.
- 5. When you're finished programming your list, press the Play button to play the programmed playlist.

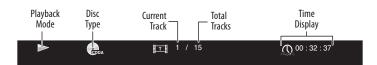
#### **BD-Live Interactivity**

BD-Live interactivity is available on select Blu-ray Disc recordings. When you select the BD-Live features from a disc's menu, you may be able to download additional content or other information via the Internet (through the Network connection).

If you have difficulty accessing the Internet while using a BD-Live disc, press the Settings button and navigate to the Network Setup menu. Select "Test Connection." If the BDT 2/BDT 20 is able to access the Internet, then the computer server that the BD-Live disc is trying to access may be at fault. Check the disc jacket for more information or contact the online content provider. If the Test Connection function fails, contact your Internet service provider (ISP) to obtain the correct settings for the BDT 2/BDT 20's IP Configuration menu. If the problem persists, contact your ISP for further assistance.

#### **Playing Music CDs**

When the BDT 2/BDT 20 is playing a music CD, the top bar shows the current playback mode icon, the type of disc, the track currently playing, the number of total tracks on the disc and the time display.

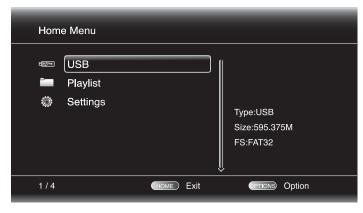


#### **Playing Files from USB Devices and CD Data Discs**

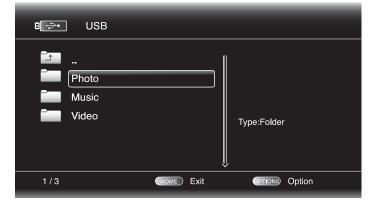
Your BDT 2/BDT 20 can play MP3 (up to 320kbps bitrate), WMA and AAC audio files; display JPEG photos; and show MPEG 1 (layer 1), MPEG 2 (layers 2 and 3) and DivX<sup>®</sup> (3.x, 4.x, 5.x) audio/video files stored on a USB device or a CD data disc.

### IMPORTANT: Only media in the FAT32 file system are compatible with the BDT 2/BDT 20.

To access files on a device inserted into the player's USB port, press the Home button and select "USB" from the source list on the screen.



Regardless of the device's file structure, the screen will first show three individual folders named "Photo," "Music" and "Video." Select the type of media that you want to play from these three folders.

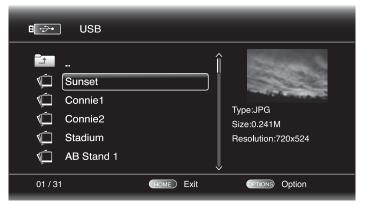


The screen will then show the device's file structure. Selecting a folder will show all of the selected type of media in the folder. If there are files of the selected type in the device's root directory, the screen will show them as well.

To move up one directory level, press the Cursor Left button or select the arrow folder.

#### **Viewing Photos**

In the top directory, select "Photo." Select a folder containing photo files, and highlight a photo file in the folder. A thumbnail of the highlighted photo will appear on the right side of the screen.



Use these remote buttons while viewing photos:

**Play Button**: Press this button to begin a slide show that displays each photo file in the current folder or directory level (starting with the highlighted JPEG) for 15 seconds in order as they appear in the folder.

**Pause Button**: Press this button to freeze the current photo on the screen. Press the Play button to resume the slide show.

Stop Button: Press this button to end the slide show and return to the directory.

**Next/Step and Previous/Step Buttons:** Press these buttons to skip to the next or previous photo file in the slide show or directory.

**Cursor Up Button**: Press this button while a photo is displayed to rotate the image 180°. Pressing this button while the directory list is displayed highlights the previous item in the directory.

**Cursor Down Button**: Press this button while a photo is displayed to show a mirrorimage reflection of the image. Pressing this button while the directory list is displayed highlights the next item in the directory.

**Cursor Left Button**: Press this button while a photo is displayed to rotate the image 90° counterclockwise. Pressing this button while the directory list is displayed jumps to the next higher directory level.

**Cursor Right Button**: Press this button while a photo is displayed to rotate the image 90° clockwise.

**Options Button**: Press this button while a photo is displayed to show the Options menu, which gives you the following options:

#### File: Select a file to view.

*Play Mode*: View files in their normal order, in random order (until you press the Stop button) or in shuffle order (the screen displays each image in the folder one time in random order, then returns to the directory).

Slide Show: Select fast (to display each image for five seconds), middle (to display each image for 15 seconds) or slow (to display each image for 30 seconds) slide-show speed.

Transition: Select from various types of image-to-image transitions (fade, wipe, etc).

Pressing the Options button when a directory is displayed shows the Playlist Options box. See *Using Playlists*, on page 18, for more information.

**Thumbnail (yellow) Button**: Press this button while playing a slide show to display thumbnail images of all photos in the active directory. Use the Cursor and OK buttons to highlight and select images to view.



**Zoom (blue) Button**: Press this button during a slide show to freeze and zoom in 2x size on the current image. Additional presses of the button change the zoom to 3x, 4x, 1/2x, 1/3x and 1/4x size.

#### **Playing Music Files**

In the top directory, select "Music." Select a folder containing music files, and highlight one of the files. Information about the highlighted file will appear on the right of the screen.



Selecting a music file plays the file. If other music files in the folder follow the selected file, the receiver will play each one in order as they appear on the on-screen display. The following screen will appear while music files play:

▶	1	/ 10	<b>()</b> 00 : 02 : 37
JUGALMANDI	Туре:	MP3	
1. 1111	Total Time:	03:29	
1. 1111	Title:	Beanwat	ter Junction, Part 1
	Artist:	Jugalbar	ndi
	Album:	Night Cra	azy
NIGHT CRAZY	Genre:	Progress	sive

If a selected MP3 file has an album cover-art ID3 tag, the art will be displayed on the screen.

Use the Play, Pause, Stop, Prev/Step, Next/Step, Search Down/Slow and Search Up/Slow buttons to control music-file playback. See *Remote Control Functions*, on page 9, for more information about the functions of these buttons.

When the BDT 2/BDT 20 is playing music files from a USB device or CD data disc, the Repeat and Options functions are slightly different from their functions when the unit is playing Blu-ray Disc recordings, DVDs and music CDs:

**Repeat Button**: Pressing this button cycles through the following repeat modes: 1 (song), All (folder), Off. The active repeat mode is indicated in the screen's top bar.

**Options Button**: Pressing this button displays any available options for the song that is currently playing:

*File*: Directly selects a song to play – either the song currently playing or another song.

*Time*: Displays the track's elapsed time or the track's time remaining.

*Play Mode*: Plays songs in their normal order, in random order (until you press the Stop button) or in shuffle order (plays each song in the folder one time in random order, then returns to the directory).

Bitrate: Shows the bitrate of the song that is currently playing.

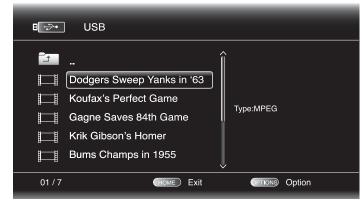
Advance: Performs a rapid audible search forward through the song.

Replay: Each press of the OK button jumps back ten seconds during play.

While playing music files from a USB device or data CD, you can also view photos that are on the same medium. Press the Home button while a music file is playing, navigate to a folder containing photo files, and select a photo file to begin a slide show.

#### **Playing Videos**

In the top directory, select "Video." Select a folder containing video files, and highlight a video file in the active folder.



The video will automatically play. If there are other video files in the folder, the BDT 2/BDT 20 will play each of them in order as they appear on the on-screen menu.

Use the Play, Pause, Stop, Prev/Step, Next/Step, Search Down/Slow and Search Up/Slow buttons to control music-file playback. See *Remote Control Functions*, on page 9, for more information about the functions of these buttons.

When playing video files from a USB device or CD data disc, the Repeat and Options functions are slightly different from their functions when the unit is playing Blu-ray Disc recordings and DVDs:

**Repeat Button**: Press this button to cycle through the following repeat modes: 1 (current video), All (folder), Off.

**Options Button**: Press this button to display any available options for the video that is currently playing:

File: Directly selects a file to play.

*Title*: Directly selects a title to play (if available).

Chapter: Directly selects a chapter to play (if available).

*Time*: Displays the elapsed time or the time remaining.

*Play Mode*: Plays videos in their normal order, in random order (until you press the Stop button) or in shuffle order (plays each video in the folder one time in random order, then returns to the directory).

Audio: Selects audio options (if available).

#### **Using Playlists**

Because USB devices and CD-R data discs can contain large numbers of playable files, you can create a playlist for each disc to help you to access selected files.

#### **To Create a Playlist**

NOTE: The procedure is the same for a CD-R playlist and a USB playlist.

- 1. Press the Home button. The Home menu will appear.
- 2. Select CD data disc or USB. The Photo, Music and Video folders will appear.
- 3. Select the type of file you want to create the playlist for. You can create a playlist for each type of file.
- 4. Search through the directory structure. When you see a file that you want to include in the playlist for that file type, highlight it and press the Options button. The playlist options box will appear.
- 5. To add the item to the playlist, select "Add to Playlist."
- 6. Repeat steps 4 5 for all items that you want to add to the playlist.

To create a playlist for a different file type, repeat steps 1-6; but in step 3, select a different file type.

#### **To Play a Playlist**

- 1. Press the Home button. The Home menu will appear.
- 2. Select Playlist. The Photo/Music/Video screen will appear.
- 3. Select the file type of the playlist you want to play. The playlist will open.
- 4. Select the first item in the playlist and press the Play button. The playlist will play.
- 5. To repeat the playlist, press the Repeat button. You can repeat one item ("1" on the screen) or the entire playlist ("All").

### Troubleshooting

If your BDT 2/BDT 20 isn't performing the way you think it should, check to see if the problem is covered in this section before calling your dealer or contacting Harman Kardon.

Problem	Solution
The player won't power up (the Power indicator is not lit):	• Check that the player's AC power cord is properly plugged into the player's power- cord connection.
	• Check that the player's AC power cord is plugged into a working AC outlet and that the AC outlet is not controlled by a switch.
	<ul> <li>Make sure that the Master Power switch (on the player's rear panel) is in the "On" position.</li> </ul>
The disc does not play:	Check that the disc is inserted correctly (label side up).
	<ul> <li>Check that the disc is the correct type: BD-Video (single-layer or double-layer), DVD-Video, DVD+R/+RW, DVD-R/-RW, CDDA (CD digital audio), CD-R/RW. Other disc types will not play.</li> </ul>
No picture:	Check the connection between the player and the TV.
	Check that the TV is turned on and that it is set to the correct input source.
	Confirm that all of the choices made in the Display Settings menu are correct for your TV.
	• Check that the TV is HDCP-compliant. The player cannot be used with a TV that is not HDCP-compliant.
No sound:	Check that the HDMI and/or coaxial digital connections are properly made.
	<ul> <li>If you're using the coaxial digital connection, check that the digital audio settings on the connected device have been properly set.</li> </ul>
	<ul> <li>If you're using only the HDMI connection, check that the HDMI audio settings on the connected device have been properly set.</li> </ul>
	<ul> <li>If you're using only the HDMI connection, check that the BDT 2/BDT 20's HDMI Audio Output is set to "On."</li> </ul>
The picture appears in the wrong aspect ratio:	Change the Aspect Ratio setting in the Display Settings menu to match the TV.
There is noise or other interference in the picture while playing a Blu-ray Disc recording or DVD:	Check that the disc surface is clean and not scratched.
Cannot access media on a connected USB device:	• Check that the device is formatted in the FAT32 file system. Other file systems are not compatible with the BDT 2/BDT 20.
The player does not respond to remote-control commands:	<ul> <li>Replace both remote-control batteries with fresh ones, and make sure that they are installed correctly.</li> </ul>
	Hold the remote control closer to the player.
	• Check that the player's remote sensor is in the remote control's line of sight.
	<ul> <li>Make sure that the protective shipping film has been removed from the player's front panel.</li> </ul>
The Ø symbol appears on the screen when you press a remote-control button:	• The selected function is not permitted at the time you press the button.
The player does not respond to commands, or it behaves in an erratic way:	• Unplug the player's power cord from the AC outlet, wait 30 seconds, and plug it back in.
You can find additional troubleshooting information in the FAQs link on the Support page at www.harmankardon.com	

### Specifications

Supported disc formats:	5-inch (12cm) or 3-inch (8cm) BD-Video (single-layer or double-layer), DVD-Video, DVD+R/+RW, DVD-R/-RW, CDDA (CD digital audio), CD-R/RW discs
Region code (BD/DVD):	A/1 (BDT 2); B/2 (BDT 20)
Audio formats:	Dolby Digital, Dolby Digital Plus, Dolby TrueHD, DTS Digital, DTS-HD High Resolution Audio DTS-HD Master Audio, PCM, WMA (DRM-free version only): WMA9, CBR @192kbps, VBR @ 355kbps, MP3: 32kbps – 320kbps bitrates, including variable bitrate encoding
Still-image format:	JPEG
Video signal system:	NTSC (BDT 2); PAL (BDT 20)
HDMI version:	1.3a with 30/36-bit Deep Color
Power requirement:	AC 100 – 240V, 50/60Hz
Power consumption:	25W maximum, <1W standby
Dimensions (H x W x D):	66mm x 440mm x 352mm (2-5/8" x 17-5/16" x 13-7/8")
Weight:	3.7kg (8.2 lb)





Harman Consumer, Inc. 8500 Balboa Boulevard, Northridge, CA 91329 USA 516.255.4545 (USA only)

Made in P.R.C.

© 2010 Harman International Industries, Incorporated. All rights reserved.

Features, specifications and appearance are subject to change without notice.

Harman Kardon is a trademark of Harman International Industries, Incorporated, registered in the United States and/or other countries. Dolby is a registered trademark of Dolby Laboratories. DTS is a registered trademark of DTS, Inc. Blu-ray Disc and BD-Live are trademarks of the Blu-ray Disc Association. DivX<sup>®</sup>, DivX Certified<sup>®</sup> and associated logos are registered trademarks of DivX, Inc. and are used under license. ABOUT DIVX VIDEO: DivX® is a digital video format created by DivX, Inc. This is an official DivX Certified device that plays DivX video. Visit www.divx.com for more information and software tools to convert your files into DivX video. ABOUT DIVX VIDEO ON DEMAND: This DivX Certified® device must be registered in order to play DivX Video-on-Demand (VOD) content. To generate the registration code, locate the DivX VOD section in the device's setup menu. Go to vod.divx.com with this code to complete the registration process and learn more about DivX VOD. Manufactured under license from Dolby Laboratories. Dolby, Pro Logic, and the double-D symbol are trademarks of Dolby Laboratories. Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,487,535 & other U.S. and worldwide patents issued & pending. DTS and the Symbol are registered trademarks & DTS Digital Surround and the DTS logos are trademarks of DTS, Inc. Product includes software. © DTS, Inc. All Rights Reserved. HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks of HDMI Licensing LLC. Microsoft, Windows and Windows Media are registered trademarks of Microsoft Corporation in the United States and/or other countries. WMA (Windows Media Audio) is a proprietary file format developed by Microsoft. This product incorporates copyright-protection technology that is protected by U.S. patents and other intellectual-property rights. Use of this copyright-protection technology must be authorized by Rovi Corporation, and is intended for home and other limited viewing uses only unless otherwise authorized by Rovi Corporation. Reverse engineering or disassembly is prohibited. Java and the Java Coffee Cup logo are trademarks of Sun Microsystems, Inc.

Part No. 950-0322-001



www.harmankardon.com