GALAXY AUDIO

HDR2
HANDHELD DIGITAL
RECORDER

Instruction Manual

HDR2

HDR2 Operation Manual
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1. Introduction:

Thank you for purchasing the Galaxy Audio HDR2 Portable Handheld Digital Audio Recorder. This product features leading edge digital recording technology, excellent sound quality and easy operation. It is ideal for recording acoustic instruments, electric guitars, vocals and keyboards as well as interviews, lectures, band rehearsal, nature field recordings…and more.

Features of HDR2
9 Groups and 99 Recording Tracks
The HDR2 provides 9 groups, numbered 1-9, and 99 recording tracks for each group, for either the internal flash memory or SD card. You may select any blank track number you prefer to record on before you record, or the HDR2 will select a blank track for you automatically. Whenever a track is recorded, the track number will remain the same, even if the previous track is deleted or added. All of the internal flash memory or SD card may be devoted to a single continuous track if desired.

Two Storage Folders
The HDR2 provides two folders for storage of files: in FOLDER 1, you can record music either from the built-in microphones, from external microphones, from an electric guitar or from Line-in sources and play it back. In FOLDER 2, you can download MP3 music from your PC or MAC and play it. The two folders allow flexibility to organize your recordings and downloads.

Leading and Unique Sound Mixer Technology
The Galaxy Audio HDR2 is equipped with built-in microphones, and two audio inputs. When you connect audio inputs to record, the sound will automatically be mixed with the built-in microphone with a balance level. Our unique sound mixing technology is perfect for occasions with multiple instruments playing, combinations with background music or for the creation of any creative music made by you!

Multiple Audio Inputs Selection
The HDR2 is equipped with two Audio-in jacks for Left & Right channel recording. A selector switch allows an external microphone, electric guitar, or Line-in as recording sources, by changing the switch position of the Audio-in selector. The multiple audio input selection adds more convenience to your recording experience.

2. NOTICE

Please read the following notice before you use the HDR2.
1.   Please read this guide carefully before you use the device.
2.   Please notice the position to put batteries inside the HDR2.
3.   There is an optional USB DC power adaptor available (HDR2USBDC)
4.   Please do not take apart or repair the HDR2 by yourself. Please bring the HDR2 back to your retailer or contact the factory.

5.	In order to keep stable data transmission, please do not twist the USB cable when you plug it into the computer.
6.	The built-in LCD display is a fragile electronic part, please do not press on it and do not touch it with sharp objects. We suggest you use only a special cloth to clean the LCD display. Please make sure that the LCD display does not get exposed to water.
7.	The SD card is a very precise electronic device, please use it according to the following notice: Do not take the SD card out of the HDR2 during data transmission. Do not bend, strike, drop or take apart the SD card. Do not place the SD card in a place with high temperature, high humidity or dust. Do not expose the SD card to static electricity. In addition:

● Please make sure the SD card you are using has been formatted (the format type of the HDR2 is FAT32).
● Please release the write protection switch of the SD card before you record.
● The HDR2 processes large amount of data during recording and playback. We strongly suggest you use high speed SD cards only, to prevent noise, data loss or any transmission problems.

We do not guarantee the function, operation or life of any SD card that is used in the device. We also do not take any responsibility for the damage of SD cards. Like any digitally stored data, it should be backed up regularly.

3. Parts Description (Switches, Connectors, and Buttons)
Switches and connectors on the HDR-2
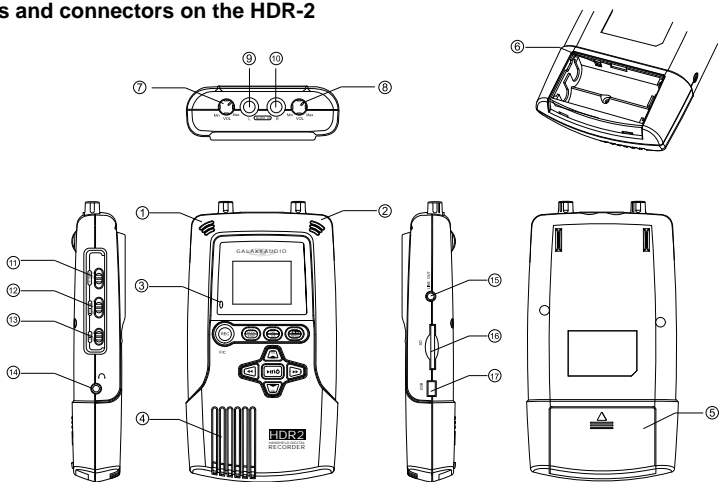
1.	*Built-in microphone "L "channel*: an omni condenser microphone is installed into the device as "L" channel.
2.	*Built-in microphone "R" channel:* an omni condenser microphone is installed into the device as "R" channel.

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3. ***Recording indicator LED:*** the LED will light up during recording.

4. ***Built-in speaker:*** a monitor speaker is installed, it is not active when earphones are plugged in.

5. ***Battery cover:*** open the cover and install two AA batteries to operate.

6. ***Battery select switch:*** when using primary batteries (or Alkaline batteries), switch to "1.5V"; or switch to "1.2V" when using Ni-MH rechargeable batteries.

7. ***Volume controller of Audio-in "L" channel***

8. ***Volume controller of Audio-in "R" channel***

9. ***Audio-in "L" channel***: it allows audio input of M(ext. microphone), G(guitar) or L(Line-in). It provides 4.5V power supply.

10. ***Audio-in "R" channel:*** it allows audio inputs of M(ext. microphone), G(guitar) or L(Line-in). It provides 4.5V power supply.

11. ***Audio-in selector:*** to select three kinds of audio input types, M(ext. microphone) / G(guitar) / L(line-in)

12. ***Built-in microphone sensitivity selector***: H(high) / L(low) / OFF: to select the sensitivity level of built-in microphones, H(high) or L(low). Or switch off the built-in microphones (OFF).

13. ***Key hold switch ON / OFF:*** switch "ON" to hold (stop running) the key control, or switch "OFF" to release key control.

14. ***Earphone jack (stereo):*** when an earphone is connected to this jack, the built-in speaker will be switched off.

15. ***Line out port:*** connect to an amplifier.

16. ***SD card socket:*** for SD memory cards.

17. ***SD port / DC Power in:*** Use a USB cable to connecting with a computer. You may use a USB type DC adaptor (DC 5V) to power the unit from this port (DC power adaptor is not included; model HDR2USBDC).

(REC) Record button: press this button to start recording (there may be a few second pause before the indicator lights up).

(MODE STOP) Stop button: press this button to stop or cancel operations (recording, playback, delete…)

(DEL A-B) A-B loop button: press this button during playback to define a loop start point (A point), then press the button again to indicate the loop end point (B point). The track will then play from A to B repeatedly until you press the button again to stop.

(MENU) MENU button: press this button to enter MENU, press the button again to leave MENU.

(▶II/⏻) Power/Play button: press and hold 2 seconds to switch ON or OFF the HDR2; Press the button to PLAYBACK; press it during playback will pause playback, push it again to continue playback.

(◀◀) Track down/Rewind button: Press this button once to select previous track, hold down the button to change the track number quickly; Hold down the key during playing to rewind playback, release the button to go back to normal playback.
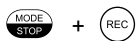
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▶▶   Track up/Forward key: Press this button once to select next track, hold down the button to change the track number quickly; Hold down the key during playing to fast forward playback, release the button to go back to normal playback.

VOL ▲   Vol. up/ Manual selector button: Press this button during playback to increase the volume level of headphone or speaker; Press this button for item selection when in MENU mode.
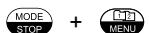
VOL ▼   Vol. down/ Manual selector button: Press this button while playing to decrease the volume level of headphone or speaker; Press this button for item selection in MENU mode.
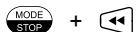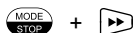
MODE button control

The MODE button is used to provide additional functions. To select a MODE function, press the MODE button first (the LCD will show MODE) and then press the desired function button immediately to select the MODE function. Here is a description of the mode functions:

MODE STOP   +   REC   Memory selection: use this function to select the internal flash memory or the SD card memory as the record target and playback source.

MODE STOP   +   DEL A-B   Delete tracks function

MODE STOP   +   MENU   Folder 1 or Folder 2 select function

MODE STOP   +   ◀◀   Group number: decrease the selection function

MODE STOP   +   ▶▶   Group number: increase the group number

4. Power on

1. Open the battery cover and install two new AA batteries into the HDR2.
2. The HDR2 works on both primary batteries (Alkaline batteries) and Ni-MH rechargeable batteries. When using Alkaline batteries, select the "1.5V" position; to use Ni-MH rechargeable batteries, select the "1.2V" position of the battery select switch.
3. Press and hold the ▶II/⏻ button for two seconds. The device will switch on and enter the operating mode.
4. Press and hold the button for two seconds to switch off the device.
5. The device will switch off automatically if no other button is pressed after 5 minutes (except when in record or play mode).
6. The LCD will show "Battery Low" when the batteries are nearly exhausted. Please install new batteries at this point.

5. Operate MENU setup

When the MENU key is pressed, the LCD will display all main items of MENU setup. Press the ◀◀ or ▶▶ keys to move to previous or next main items. Press VOL▲ or VOL▼ keys to select secondary items. Press the MENU key again to exit MENU mode.

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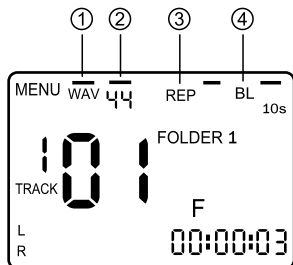
1. **Recording format :** There are two formats available for recording, WAV and MP3.
2. **Sample rate:** For WAV format, there are 6 sample rates to select: 8KHz, 11KHz, 16KHz, 22KHz, 32KHz, 44KHz. For MP3 format, there is only one sample rate: 44KHz
3. **REP(repeat):** there are two playback repeat functions, REPEAT (the track will be repeated) or REP All (the device will repeat all the tracks).   The LCD will show nothing if user does not select REP function.
4. **BL(back light time):** There are four selectable back light times:
ON (back light always on)
10s (turn the back light off if there is not any other button pressed after 10 sec)
20s (turn the back light off if there is not any other button pressed after 20 seconds)
OFF (no back light)

6. Recording

How to record
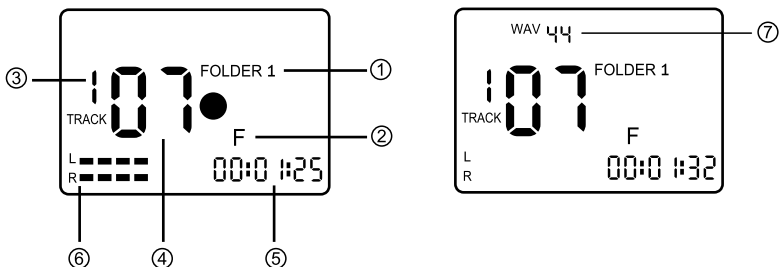
1. The device allows you to record **ONLY** in FOLDER 1. To change to FOLDER 1, press ⬛MODE/STOP + ⬛MENU , when the LCD display shows FOLDER 1, you are in FOLDER 1 mode. (1)

2. The device allows you to record into the internal flash memory or into an installed SD card memory (2). The HDR2 will change to the SD card memory automatically when SD card is installed. Or you can press ⬛MODE/STOP + (REC) to interchange between the memory of the internal flash memory (F) and the SD card (C).

3. Press ⬛MODE/STOP + ⏪ or ⬛MODE/STOP + ⏩ to select the group number in the range from 1 to 9. (3)

4. Press ⏪ or ⏩ to select the recording track in the range from 01 to 99 to record (4). You may select the blank track number you want to record to, then press (REC) button to record; Or just press (REC) button directly, the device will select a blank track that follows the last recorded track number to record (for example, if the last recorded track number is 05, the automatically selected track number will be 06).

5. Press (REC) button to start recording, the Recording indicator **LED** will light up (their may be a short delay after pressing **REC** button and seeing the indicators), and the time clock will start running (5), which means that the recording is in progress. Press ⏯/⏻ to pause record during recording, the Recording indicator **LED** will start flashing, press the same button again to continue recording. Press ⬛MODE/STOP button to finish recording.

6. The volume indicator will show on the LCD during recording (6), you can adjust input volume by the Volume controller of Audio-in (8 or 9). Be sure to watch the recording level. Setting it too high may result in a distorted recording level.

7. When you finish recording, the recording format and sample rate of this track will show up on the LCD. (7)

8. For extended time recording or playing, you can move the Key hold switch (14) to ON position to disable all buttons and switch to the OFF position to enable all buttons. This feature is useful to prevent accidental interruptions.

Record from microphones

1. The HDR2 is equipped with two built-in microphones (omni directional condenser type). You may adjust the high/low sensitivity level of the built-in microphones using the Built-in microphone sensitivity selector (13). The high sensitivity level of built-in microphone is at -45dB (at 1KHz), while the low sensitivity level is at -35dB (at 1KHz). You may also adjust the Volume control of Audio-in to make fine volume adjustments. (7 or 8).

2. There are two ¼" Audio-in jacks on the HDR2 (9 & 10). They allow you to plug two external microphones into the jacks for recording. Select to "M" position of the Audio-in selector (11). The two Audio-in jacks both provide DC 4.5V power. You may use either condenser microphones or dynamic microphones as recording sources. The external microphone record level is adjustable via the volume controls (7 or 8). The mic sensitivity switch (12) has no effect on the external mics.

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3. The built-in microphones and the external microphones will be mixed in stereo to the record track with the balance levels you have set.
4. You may turn off the built-in microphones while recording from other sources. Switch OFF the Built-in microphone sensitivity selector (12)

Record from electric guitar or line-in
1. The HDR2 allows you to plug in an electric guitar as a recording source. Please select "G" on the *Audio-in selector* (11). The electric guitar record level is adjustable via the *volume control of the Audio-in jack* (7 or 8).
2. The HDR2 allows you to connect line level sources, such as CD players, tape decks, radios, etc. Please select "L" of the *Audio-in selector* (10). The line-in record level is adjustable via the *volume control of the Audio-in jack* (7 or 8).
3. The built-in microphones and the electric guitar or line-in recording source will be mixed in stereo to the record track with the balance levels you have set.
4. You may turn off the built-in microphones while recording from other sources. Switch OFF the *Built-in microphone sensitivity selector* (13)
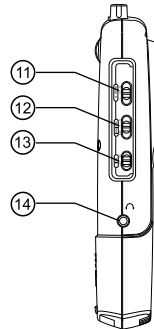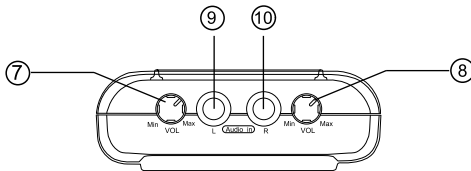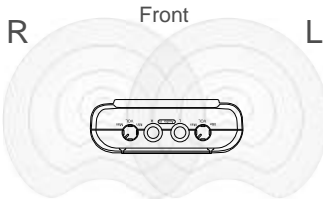
Microphone Positioning

1. Polar pattern of the built-in microphones:
    The built-in microphones of the HDR2 are an omni-directional condenser. Following is a diagram of the microphone polar pattern.

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2. To produce best recording result, we suggest that you put the HDR2 at a distance of around 2 ft. from the sound source, at table height.

3. Please adjust the input volume level to the proper setting. Do not set to the highest volume level on recording, otherwise, the recording sound quality will be distorted. Be sure to watch the recording level. Setting it too high may result in a distorted recording level.

4. In situations where multiple instruments are played simultaneously, the HDR2 should be positioned closer to instruments with lower sound levels – or you may need to use extension microphones for the different instruments.

5. If you want to record speech (e.g. from a teacher) together with the playing of instruments, it is best if the speaker uses the external lapel microphone.

6. For better recording quality, the external lapel microphone could also be clipped on music stands or the body of a singer or speaker, depending on the situation.

7. Playback
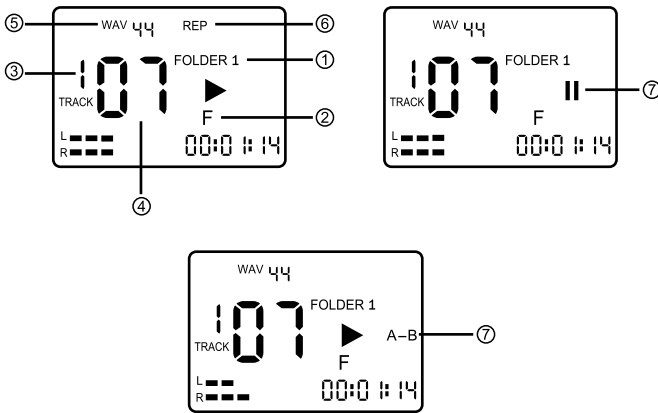
1. FOLDER 1 or FOLDER 2: Enter FOLDER 1 to play the files/tracks previously recorded with the HDR2. Enter FOLDER 2 to play files downloaded/transferred from a computer. To change between the two folders, press (MENU) + (MODE STOP). (1)

2. Playback from flash memory or SD card memory: Select the files you want to playback from internal flash memory or SD card memory (2) (further explained in the previous chapter Recording)

3. Select the Group and track you want to playback: Press (MODE STOP) + ◄◄ or ►► to select group number in the range from range 1 to 9. (3). Select the track to playback by pressing ◄◄ or ►► buttons in the range from 1-99 (4). The recording format and sample rate of the track you select will show up on the LCD display. (5)

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4.   Press [▶Ⅱ/⏻] to start to playback. The LCD display will show "▶". Press the same button during playing to pause. The LCD display will show "Ⅱ" and flash. Press the same button again to continue playing.

5.   Forward and rewind during playback: Hold on [◀◀] during playback to rewind the playing. Hold down [▶▶] to forward the playing. The time display will move quickly according to the position. Release the button to go back to normal playback.

6.   Repeat and Repeat All: Enter the MENU mode, to set up repeat mode. If you select REP, the track will be repeated. If you select REP All, the device will repeat all the tracks. Please note that the REP All function only works in FOLDER 2 mode. The LCD will show REP mode on the LCD display. (6)

7.   A-B loop : press [DEL/A-B] button during playback to define a loop start point (A point), then press the button again to indicate the loop end point (B point). The music will then play from A to B repeatedly until you press the button again to stop. (7)

8.   The device allows you to adjust the volume level of earphones or built-in speaker by pressing [VOL▲] or [VOL▼] during playback. The level range is from 00 to 20.

8. Delete tracks

You can delete the recording files via computer or by the device itself. To delete the files with the device: Select the track you want to delete, press [MODE/STOP] + [DEL/A-B], the LCD will show "**dEL**", then press [DEL/A-B] again, the machine will start to delete the track.   When the LCD stops showing "**DELETE**", and the clock returns to 00:00:00, means the track is empty and is available for a new recording.

9. Transfer to and from your computer

The HDR2 can be connected to a computer to copy and store your recording files on your computer (to backup your data) or to download music to play on the HDR2.

When you connect the USB port of the HDR2 to your computer, the computer will detect the HDR2 as two removable disks (the first disk represents the built-in flash memory; the second disk represents the SD card memory), and you will find folders of Group 1 – 9 in each removable disks. The music you have downloaded from the computer to the HDR2 will be accessible in FOLDER 2, and the track number depends on the sequence in which the files are transferred. This means that the track number in FOLDER 2 is not fixed and can be changed at any time if a track is deleted or added. If you want the files to have a fixed track number, you can store the music in FOLDER 1. To do this, you simply need to change the filenames according to the following sequence:

> a) If you want to download files to FOLDER 1 with a fixed track number, and store them to the built-in flash memory, change the file name to M_INT_xx (where xx is the track number you want it to be.)
>
> b) If you want to download files to FOLDER 1 with a fixed track number, and store them to the SD memory card, change the file name to M_EXT_xx (where xx is the track number you want it to be.)

The HDR2 may be powered using a USB adaptor. When connecting with the computer, press [MODE/STOP] once, the machine will enter the operating mode, then you can operate the device with the power from the computer. To exit the operating mode, press [MODE/STOP] for over 2 seconds.

10. Spcifications

Recording media: Internal flash memory 128MB, SD memory card (16MB - 2GB), SDHC memory card (4GB)

SD card format type: FAT 32

Recording format: WAV(16bit), sample rate:8/11/16/22/32/44.1KHz; MP3(128Kbps), sample rate: 44.1KHz.

Playback format: WAV: PCM WAV with sampling rate of 8KHz, 16KHz, 32KHz and 44.1KHz, MP3: MPEG1, MPEG2, MPEG2.5 Layer3, from 32K~320Kbps

S/N ratio at 1KHz: 55dB

Frequency response: 20 – 20KHz

Built-in microphone: Omni-directional condenser microphone type

Input: Two 1/4" mono for selection of extension microphone, Line-in, and Guitar (plug-in power 4.5V) Built-in stereo microphones(L & R).

Output: 1/8" stereo headphone
1/8"stereo Line out
Built-in speaker: 0.2Watt, 8 Ohm

USB interface: Mini-B type (USB 2.0 Full-Speed compatible)

Power requirements: AA battery x 2, USB transfer cable, or USB DC adaptor 5V (not included).

Battery life (Alkaline batteries): 5 hours for recording, or 6 hours for playback (by headphone)

Dimensions: 6"(L) x 3.3"(W) x 1"(D)

Weight: 7oz (about 0.5lbs) (not including batteries)

Accessories: Two lapel microphones, USB cable, two AA batteries, and ear buds.

HDR2
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RECORDER

GALAXY AUDIO ®

MAKERS OF THE ORIGINAL HOT SP●T PERSONAL MONITOR

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Specifications subject to change without notice.

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