AK240

Astell&Kern

INSTRUCTION BOOK

User Guide

iriver

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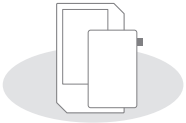
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Package Contents

Contents may be changed without prior notice to improve the performance or quality of the product.



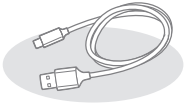
AK240



Leather Case (with warranty) & Protective Film



Quick Start Guide & Warranty Card



Micro-USB cable



microSD Card Slot Cover

Leather Case & Protective Film : Protect the device and its screen. Warranty for the Leather Case guarantees the quality of the leather.

Micro-USB cable : Connect the device to a computer or charge the device.

Quick Start Guide : Basic overview of device functionality.

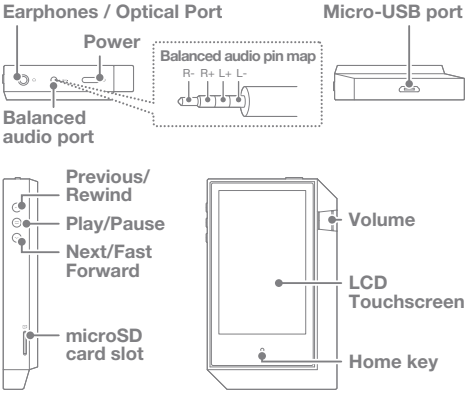
Warranty card : The warranty card is required for customer & technical support. Do not misplace the card.

User Guide : The User Guide can be downloaded from the Astell& Kern website [http://www.astellnkern.com > Support > Download].

microSD card slot cover : The cover is used to protect the microSD card slot when not in use. It's installed on the device by default.

AK20 at a Glance

The appearance of the product, printed and engraved information may vary depending on the model.



Earphones / Optical port : Output sound to connected earphones. Music can be played back on an SPDIF-capable external device by using an optical cable.
Power : Turn the screen on and off.
Long Press - Turn the device on and off.
Balanced port : Output sound to earphones or headphones that support balanced audio connections. Connect to an external audio device by using both the earphone port (ground) and balanced audio port (LR) in conjunction.
Micro-USB port : Connect to a computer or recharge the device.
Previous/Rewind : Play the previous song or restart the song.
Long press - Rewind.

Play/Pause : Play or Pause a song.
Next/Fast Forward : Skip to the next song.
Long press - Fast Forward.
microSD card slot : Insert a microSD card and access its files.
Volume : Control the volume by turning the wheel.
LCD Touchscreen : Display with gesture control.
Home button : Show the Home Screen.

Power Management

Turn On/Off

1. Long press the [⏻] button to turn on/off the device.
2. A long press while the device is on will display a shutdown message.
3. Press [Confirm] to turn off the device.

> **This device has an automatic shutdown feature to reduce battery consumption. The device will turn off after a defined period when there is no user input. [Settings - Power Saving - Automatic Shutdown] (See p. 38)**

Turn the Screen On/Off

1. Press the [⏻] button to turn on the screen.
2. Another short press will turn off the screen.

> **This device has an automatic timeout feature to reduce battery consumption. The screen will turn off after a defined period when there is no user input. [Settings - Power Saving - Screen Timeout] (See p. 38)**

Reset Function

1. In cases of unexpected device failure or freeze, press the [⏻] button for 12 seconds to force a shutdown. The device can be restarted normally after a shutdown.

Resetting the device will not affect the stored data or time setting. Do not attempt to reset the device while it's functioning because doing so may corrupt stored data.

Charging

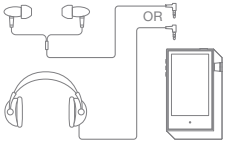
1. Turn on the computer.
2. The device will charge automatically when connected to a computer via the Micro-USB cable.

When charging via PC connection, the charge time may change depending on whether the device is On or Off. The maximum charge time with a 5V 2A charging adapter is 4 hours and 30 minutes. (Fully discharged battery, power Off)
If the device is On and/or being used while charging, the charge time may be longer or the battery may not fully charge. Charging with the device turned Off is recommended.
The device may not charge if the PC or USB connection goes into standby/sleep mode.
The device may charge slowly or not charge at all in extreme temperatures. Charging in a room-temperature setting is recommended.
The built-in battery will gradually lose capacity over time according to the number of charges/discharges.
Be sure to use a high-powered USB 2.0 port. A low-powered USB port (i.e. keyboard or USB hub without a dedicated power supply) will increase the charge time.
Do not use a Micro-USB cable other than the one supplied with the device because doing so may cause a malfunction.

Connections

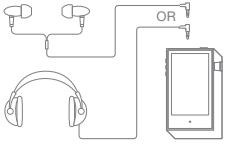
Earphones/Headphones

1. Connect earphones or headphones to the earphones port.



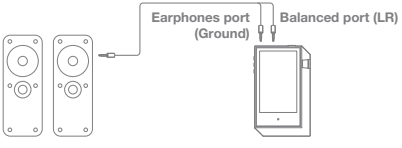
Balanced Earphones/Headphones

1. Connect supported earphones or headphones to the Balanced port.



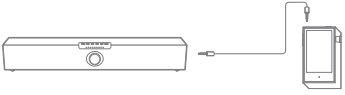
Balanced Audio Device

1. Connect to an external audio device by using both the Earphones port and Balanced port in conjunction.



Optical Out

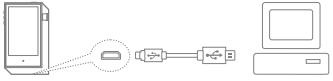
1. Music can be played back on an SPDIF-capable external audio device by using an optical cable.



DSD format is not supported while using Optical Out.

Connecting to a Computer

1. Turn on the device and the PC.
2. Connect the device to a PC as a standard USB device by using the supplied Micro-USB cable. [Settings - Connect USB]
   - USB drive : Transfer files from the PC to the device.
   - DAC input : Listen to music from the PC on the device. (See pp. 29-33)



Mac users need to download and install the MTP program from the Astell&Kern website. [http://www.astellnkern.com > Support > Download] For an optimal connection, quit all unnecessary programs before connecting the device to the computer. Do not use a Micro-USB cable other than the one supplied with the device because doing so may cause a malfunction. Windows XP users require Service Pack 2 and Windows Media Player 10 to be installed for the computer to recognize the USB device. Download necessary Service Packs and Windows Media Player from the Microsoft website. http://www.microsoft.com

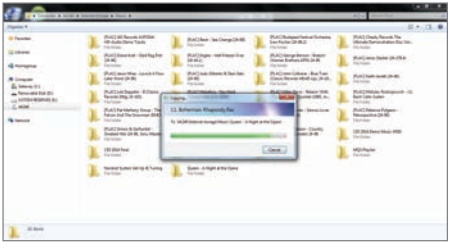
Disconnecting from the Computer

1. Verify that all operations have completed before attempting to disconnect the device from the computer.

Disconnecting the device from the computer during an operation (i.e. file transfer) may corrupt data on the device.

Copy Files/Folders to the Device

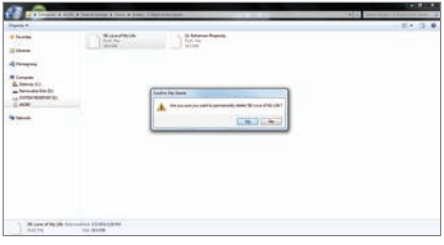
1. Select the appropriate files/folders from the computer and Drag & Drop them into the USB device.



Make sure that the Micro-USB cable is securely connected.
Removing the Micro-USB cable or turning off the device/computer during a file transfer may corrupt data on the device.
File transfer speeds may be affected by the computer and/or the OS environment.

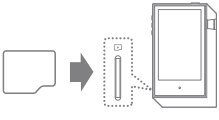
Delete Files/Folders on the Device

1. Select the file/folder to delete, right click, and select [Delete].
2. Select [Yes] in the [Confirm File/Folder Deletion] window to delete the selected files/folders.



Insert/Remove a microSD Card

1. Refer to the diagram and gently insert a microSD card into the microSD card slot.



2. To safely remove a microSD card, select [Safely remove SD card] from the Notification Bar or select [Unmount SD card] from [Settings - System Information].
3. Gently press the microSD card to release it from the slot.



Recommended microSD Cards

Brand : SanDisk, Transcend

Notes on inserting a microSD card.
- **Do not force the microSD card into the slot. Doing so may cause damage to the device and/or the microSD card.**
- **Do not repeatedly insert/remove the microSD card.**
- **If the microSD card is improperly inserted, it may become immovable or cause damage to the device.**

Notes on removing a microSD card.
- **Be sure to safely unmount and remove the microSD card from the device. Not following the proper procedure may corrupt data and cause serious damage to the system.**
- **Do not remove the microSD card while it's in use. Doing so may cause data corruption/deletion, malfunction, and damage to the microSD card.**

Miscellaneous
- If the device is unable to recognize the microSD card and /or is malfunctioning, format the memory card before use. **(See p. 40)**
- **Using microSD cards other than the recommended brands may cause device malfunction.**
- **A microSD card is not included with this device. Please purchase separately.**

If the device is unable to recognize the microSD card and /or is malfunctioning, format the memory card before use. **A microSD card is not included with this device. Please purchase separately.**

Firmware Upgrade

Wi-Fi Update / OTA (Over-the-Air)

1. Connect to a wireless network.
2. When a new firmware version is found, a Firmware Update Guide window will display on screen.
3. Select [Update] and choose the items for update.
4. Follow the on-screen instructions and proceed with the Firmware Upgrade.

Refer to page 41 of the manual for more information on connecting to a wireless network.
Firmware Upgrade may not initialize when the battery level is too low (A minimum battery level of 50% is required). Moving to another screen during the file download will cancel the download.
Do not disconnect from the wireless network during a Firmware Upgrade. Doing so may cause data corruption and/or damage to the system.
If an error occurs or the notice in the Notification Bar disappears during an upgrade, download the Firmware Upgrade again through [Settings - Update - System Update].

Basic Functions

LCD Touchscreen

1. This device features an LCD Touchscreen. Interact with the device by touching the screen to access a variety of features.

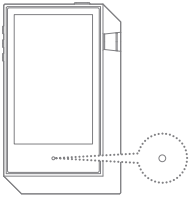
Do not use a sharp object or excessive force to prevent damage to the screen.

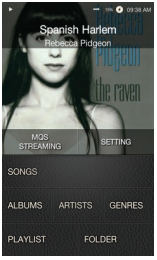
Moving up/down in the list

1. Scroll through a list by dragging [Bottom ➜ Top] / [Top ➜ Bottom] on the screen.

Home Screen

1. Press the [Home] button at any time to return to the Home Screen.

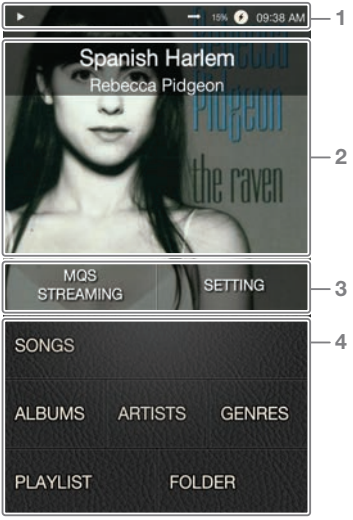




Home Screen

2. Long press the [Home] button to move to the Music Player.

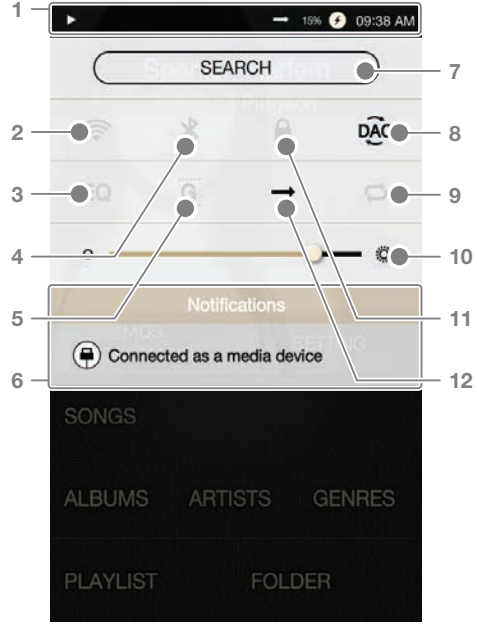
Home Screen



1	**Notification Bar**	Pull down on the Notification Bar to view its contents. (See pp. 14-16)
2	**Current Song**	Currently playing artist/song information.
3	**Menu items**	Select a menu button to move to the corresponding screen.
4	**Search options**	View the list of songs by different search options.

Menu items other than [MQS Streaming/Settings] can be long-pressed and dragged to change their locations.

Notification Bar



1	**Notification Bar**	Press the Notification Bar to close.
2	**Wi-Fi**	Press [ ] to turn Wi-Fi on or off.
3	**Equalizer**	Press [EQ] to turn the EQ on or off. The most recent EQ settings are used by default.
4	**Bluetooth**	Press [ ] to turn Bluetooth on or off.
5	**Gapless Playback**	Press [G] to turn Gapless Playback on or off.
6	**Notifications Display**	Notification contents are displayed in this area.
7	**Search**	Enter keywords to display a list of items containing the search terms.
8	**Computer Connection**	Select the appropriate mode when connected to a computer. DISK :USB drive mode for transferring media files. DAC :Listen to music from the PC through the device.
9	**Repeat**	Press [ ] to cycle through different Repeat modes. : Repeat the entire Playlist. : Repeat the current song. : Disable Repeat.

10	☼	**Brightness**	Use the adjustment bar to control the display brightness.
11	🔒	**Screen Lock**	Press [🔒] to turn the Screen Lock on or off. The volume wheel will not function when the screen is locked.
12	→	**Play Mode**	Press [→] to cycle through different Play Modes. → : Sequential playback. ⤮ : Shuffle playback.

Long press [ᯤ/ EQ / ᛒ] to move to the corresponding screen.

MQS Streaming

The AK240 can access music files stored on a computer on the same network.

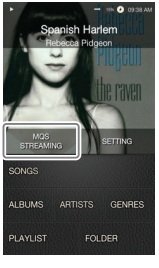
MQS Streaming Server Installation

1. Visit the Astell&Kern website and download the server installer that corresponds to your operating system. [http://www.astellnkern.com > Support > Download]
2. Run the downloaded installer and follow the on-screen instructions.
3. Check the User Guide within the program for detailed information on using the MQS Streaming Server.

Minimum system requirements.
PC
- OS : Windows XP, Windows 7, 8 (32 & 64 bit)
Mac
- Mac OS X Lion (10.7)

Running the MQS Streaming Server

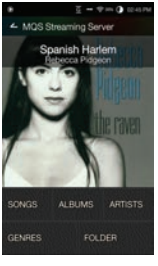
1. Run the MQS Streaming Server from the computer.
2. Connect the AK240 to the same network as the computer and select [MQS Streaming] from the Home Screen.



3. The MQS Streaming Server is displayed in the list.



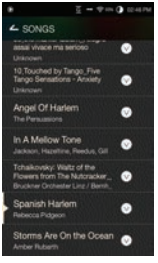
4. Selecting the server will connect automatically and direct the user to the server Home Screen.
5. Select a search option at the bottom of the server Home Screen to display a list of music.



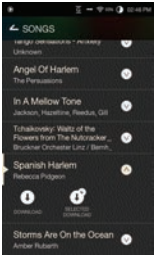
Refer to page 41 of the manual for more information on connecting to a wireless network.

MQS Streaming and Download

1. Select a search option from the server Home Screen to display a list of music.
2. Select a song to begin streaming.



3. Long press a song to display an option for downloading the song to the device.[Download / Selected Download]
   Select the appropriate option to download songs.
   - A message on the Notification Bar will indicate a completed download.



Depending on network conditions, song loading may be slow and streaming may stutter.
Server response may be slow when the server computer is under a load.
Depending on network conditions and server status, the AK240's performance may be affected when streaming and downloading simultaneously.
Terminating MQS Streaming or pressing the item being downloaded within the Notification Bar will stop downloads.

Music Player

Selecting Music

1. Select a search option from the Home Screen to display a list of music.
2. Select a song from the list to begin playback.

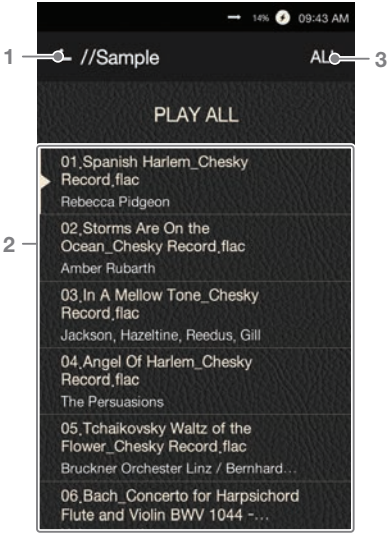
Select [Folder] to search by folder.
Continuous Playback: Approximately 10 hours (Basis: FLAC, 16 bit, 44 kHz, Unbalanced output, Volume 40, EQ Off, LCD Off)
Supported file formats: FLAC, WAV (8-192 kHz, 8/16/24 bit), WMA (8-320 kbps), MP3(8-320 kbps), OGG, APE (Normal, Fast, High), AAC, AIFF, ALAC, DFF, DSF

Listening to Music

- Select an album cover from the Home Screen to begin playback.
- Turn the [Volume Wheel] to adjust the volume.
- Press [❚❚] during playback to pause and [▶] to resume playback.
  + Press the [⏯] button on the device to pause/resume playback.
- Press [◀◀ / ▶▶] during playback for the previous/next song.
  + Press the [〈 / 〉] button on the device for the previous /next song.
- Long press [◀◀ / ▶▶] during playback to rewind/fast forward.
  + Long press the [〈 / 〉] button on the device to rewind /fast forward.
- Press [⮌] to return to the previous screen.

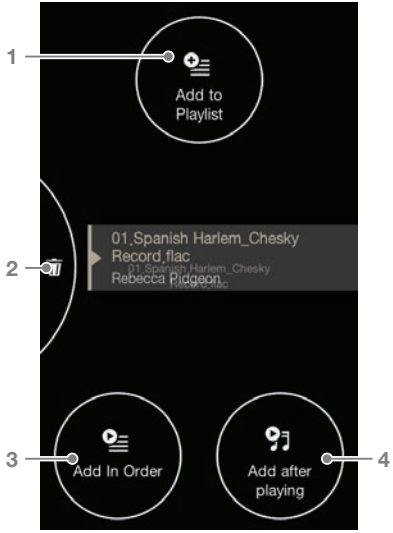
- Press the [Home] button on the device to go to the Home Screen.
- Press [] to display the current Playlist.
- Long press a song on the Playlist for Playlist options.
  + [Add to Playlist/Remove/Add to end of Playlist/Add after current song] are available from the Playlist.
- Drag the progress bar to the desired location during playback.
- Press the Album Cover during playback to show lyrics.
  + ⊕ : Add current song to Playlist.
  + ⓘ : Show song information.

Playlist Screen



1	**Current location**	Indicates the current location. Press to move return to the previous screen.
2	**Playlist**	Displays the playlist for the current location. Long press a song to add to or remove from the playlist.
3	**List sorting**	Select a method for sorting the playlist. 

Playlist Option

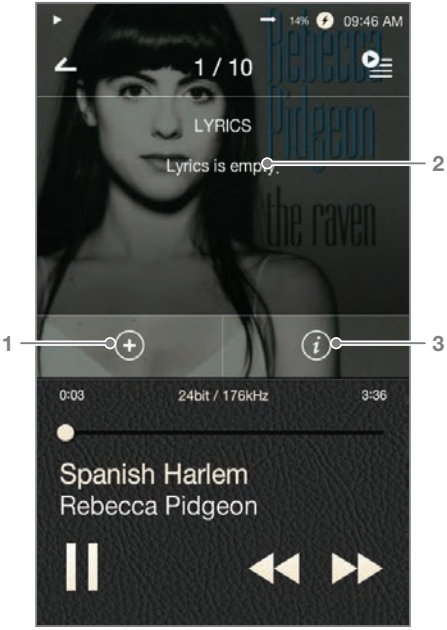


1	**Add to Playlist**	Add the selected song to a Playlist.
2	**Remove from Playlist**	Remove the selected song from the Playlist.
3	**Add to End of Playlist**	Add the selected song to the end of the Playlist.
4	**Add After Current Song**	Add the selected song after the song currently playing.

Music Player Screen



1	**Previous Screen**	Return to the previous screen.
2	**Album Cover**	Displays album covers. Press the album cover to show lyrics, add the current song to a playlist, or view song information. Indicates the elapsed time.
3	**Song Progress**	Song title information.
4	**Song Title**	File name is displayed when ID3 metadata is unavailable.
5	**Artist**	Artist name.
6	**Play/Pause**	Play or pause the current song.
7	**Playlist**	Indicates the current playlist.
8	**Details**	Displays bitrate and sampling frequency data.
9	**Song Duration**	Indicates song duration. Press to switch from elapsed time to remaining time.
10	**Progress Bar**	Indicates song progress. Drag the indicator to move to the desired time.
11	**Previous/ Rewind**	Short press: Previous song. Long press: Rewind the current song.
12	**Next/Fast Forward**	Short press: Next song. Long press: Fast forward the current song.

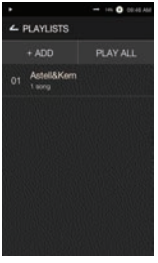


1	⊕	**Add to Playlist**	Add current song to a playlist.
2		**Lyrics**	Lyrics for the current song.
3	ⓘ	**Details**	Detailed song information.

Playlist Management

Create a Playlist

1. Press [Playlists] from the Home screen to display a list of playlists.
2. Press [All Playlists], then press [+ Add].
3. Enter a name for the playlist and press [Create] to create a new playlist.
   - Long press to [Delete/ Rename] a playlist.



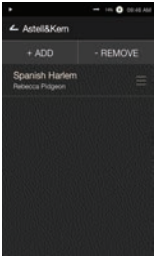
Add a Song to a Playlist

1. Press [All Playlists] to display a list of playlists.
2. Select a playlist and press [+ Add] to display a list of songs.
3. Check the box next to the desired song and press [Add] to add the song to the selected playlist.



Remove a Song from a Playlist

1. Press [All Playlists] to display a list of playlists.
2. Selected the desired playlist and press [- Remove].
3. Check the box next to desired song and press [Remove] to remove the song from the selected playlist.



Edit the Playlist Order

1. Long press [☰] to edit the playlist order.



USB DAC Functionality

The USB DAC functionality allowed the AK240 to be registered as a sound card on the computer.
Music from the computer is played through the device for an enhanced listening experience.

USB DAC Specifications

- USB DAC Supported OS
  + Windows XP (32 bit) / Windows 7(32 & 64 bit) / Windows 8 (32 & 64bit)
- USB DAC Support Specifications
  + Supported formats: WAV, FLAC, WMA, MP3, OGG, APE (Normal, High, Fast), AAC, ALAC, AIFF, DFF, DSF
  + Sampling ate: 44.1kHz - 192kHz
  + Bitrate: 16 bit / 24 bit
  + DSD Support Specifications: DSD64, DSD128
- Control the volume with the AK240's volume wheel.

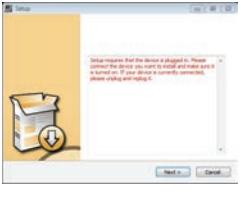
Volume control is unavailable when the LCD screen is Off during USB DAC connection. The Previous, Next, and Play buttons are unavailable during USB DAC connection. Playback may stutter when computer performance is slow or the USB connection is strained from heavy usage.
There may be issues with audio-to-video synchronization during video playback depending on the sound quality and operating environment.
Optical output (S/PDIF) is unavailable during USB DAC connection. Volume cannot be adjusted via the Windows volume control. The volume wheel on the device or volume control on the appropriate program must be used to adjust the volume.

USB DAC Installation

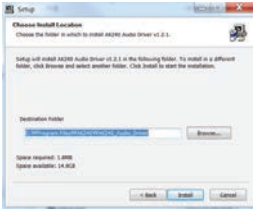
1. Set [DAC Input] from [Settings - Connect USB].
2. Connect the device to the PC using the supplied Micro-USB cable.
3. Run 'Setup.exe' from Drivers.
4. Press [Next] when the below screen is displayed.



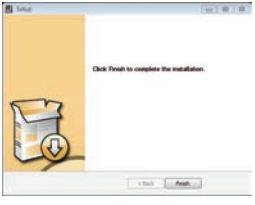
- When the below screen is displayed, verify that [DAC Input] is selected under [Settings - Connect USB].

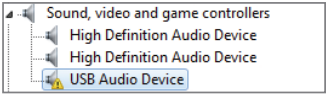


5. Click [Browse] to select the driver destination folder and click [Install].

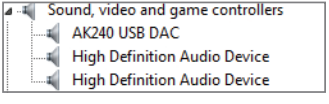


6. When the below screen is displayed, click [Finish] to complete the installation.



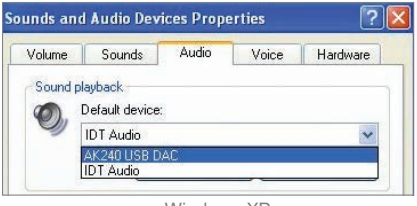


< Before driver installation >

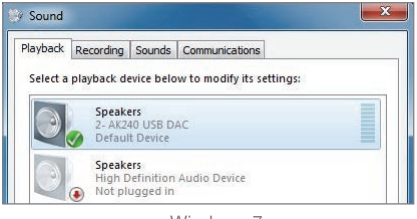


< After driver installation >

7. Change the default 'Sound Output' device according to the operating system as seen in the images below.
   - Win XP: Control Panel > Sound and Audio Devices > Audio tab > Change the default audio device under 'Sound playback' to [AK240 USB DAC]
   - Win 7/8: Control Panel > Hardware and Sound > Manage Audio Devices > Right click [AK240 USB DAC] and select [Set as default device]

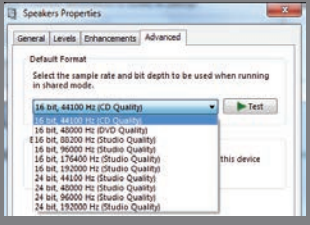


< Windows XP >



< Windows 7 >

Hi-Fi audio playback on Windows 7/8: Control Panel > Hardware and Sound > Manage Audio Devices > Double click [AK240 USB DAC] > Advanced tab > Default format > Select [24 bit, 192000 Hz] (Recommended)



- Mac OS X: System Preferences > Sound > Output tab > Select [AK240 USB DAC]



This step is only required for the initial setup. No additional steps are necessary after selecting the AK240.

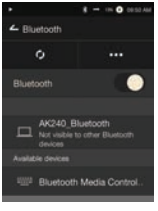
Bluetooth

Connect a Bluetooth device to listen to music wirelessly.

Turn Bluetooth On/Off

A Bluetooth device must be paired with the AK240 prior to use.
Refer to the Bluetooth device's User Guide for details.

1. Select [ᛒ] from the Home Screen or select [On/Off] from [Settings - Bluetooth].



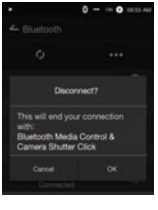
Bluetooth Pairing

1. Select the appropriate Bluetooth device from the list of available devices.

A Bluetooth device must be paired with the AK240 prior to use. Refer to the Bluetooth device's instruction manual for details.

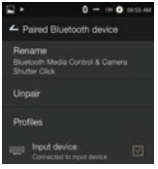
Terminate Bluetooth Connection

1. Press the connected Bluetooth device and confirm the message prompt to disconnect the device.



Remove Bluetooth Pairing

1. Press the paired device to be directed to the settings screen.
2. Select 'Remove Pairing' to complete the process.



Bluetooth Support Specifications
- **Profile: A2DP**
- **Device performance may be affected during Hi-Fi playback. (48 kHz or lower is recommended)**

DSD playback is unavailable with Bluetooth. Do not turn off the device during a Bluetooth connection.
Power cycle the Bluetooth device in case of malfunction.
Pairing methods may be different for each individual Bluetooth device. Always refer to the respective instruction manual for details.
Maintain a distance of 20 cm (8 in) between the AK240 and the paired Bluetooth device. Audio quality will degrade with longer distances, and the pairing may disconnect at a distance of 2 m (6.5 ft). (Distances may vary depending on the device and environment)
Crosstalk may occur while using Bluetooth.
For multipoint devices, make the necessary connections prior to use.
Car audio Bluetooth connections are not supported.
Malfunction, noise, and other undesirable effects may occur due to the device's battery level and the environment.
- **Instances in which signal interference affects data transmission. (i.e. holding the device while wearing a Bluetooth device, holding the device while holding another electronic device, etc.)**
- **Instances in which the device or Bluetooth headset's radio transmitters are touching parts of the body.**
- **Instances in which the transmission strength is affected by walls, corners, partitions, etc.**
- **Instances in which devices using the same frequencies cause interference (i.e. medical devices, microwave ovens, Wi-Fi, etc.)**
- **Areas with a great deal of interference or where signals are weak (i.e. elevators, underground, etc.)**

Settings

Set up the device according to the user's needs. The settings menu may vary depending on the Firmware version.

Setup

1. Select [Settings] from the Home Screen.
2. Select the desired item.

Wi-Fi

- Change wireless network settings and turn Wi-Fi on or off.

Refer to page 41 of the manual for more information on connecting to a wireless network.

Bluetooth

- Connect a Bluetooth device to listen to music wirelessly.

Refer to page 34 of the manual for more information on using a Bluetooth connection.

Equalizer

- Set the Equalizer according to the user's preferences.
  - Pro EQ: EQ Preset recommended by professionals.
  - User EQ: Adjust the frequencies according to the user's preferences.

Equalizer is not supported during DSD playback. Using the equalizer may affect device performance. Refer to pages 42-44 of the manual for more information on using the Equalizer.

Gapless Playback

- Play the next song without any interruptions/silence.
  - Gapless playback is only supported between two files with identical bitrate, sampling rate, and channels.

Line Out

- Turn Line Out on or off.
  - Enabling Line Out will lock the volume level at maximum.

Do not use earphones with the Line Out feature enabled. Doing so may cause permanent hearing loss.

Balanced Output

- Turn Balanced Output on or off.
  - Balanced Output will take priority when enabled.
  - When connecting earphones while Balanced Output is enabled, the earphone port will be enabled after turning off Balanced Output from the volume window. Disconnecting the earphones at this point will automatically enable Balanced Output.

Left-Right Balance

- Adjust the Left-Right Balance for earphones/ headphones.

Screen Brightness

- Adjust screen brightness settings.

Theme

- Change the Theme.

Date & Time

- Set the current Date, Time, and Region.

Language

- Select the displayed Language.
  - English, Korean, Japanese, Chinese (Simplified / Traditional)

Power

- Automatic Shutdown: The device will turn off after a defined period when there is no user input.
- Screen Timeout: The screen will turn off after a defined period when there is no user input.
- Sleep Timer: Music playback will stop, and the device will turn off after a defined period.

Connect USB

- Media Device (USB Drive): Connect to a computer to transfer media files.
- DAC Input: Listen to music from a PC on the device.

Download

- Select a folder for downloaded files.

Select a default folder for downloading music during MQS Streaming. 'Select Folder' will prompt the user to manually select a folder for each downloaded file.

Update

- System Update: Update the system when a new version is found.
- Application Update: Update the default applications (including the Store) when new versions are found.

System Information

- System Information: View model number, firmware version, and data storage information. The microSD card can be mounted/dismounted, and data can be deleted.

Formatting the microSD card will delete all data on the memory card. Be sure to backup any important files before formatting.
When formatting the microSD card from a computer, be sure to select the FAT32 system.

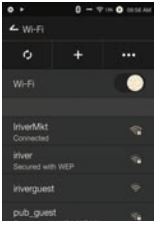
System Restore

- Default Settings: Revert all user settings back to their original settings.
- Factory Reset: Delete all user data and restore the device to its original factory settings.

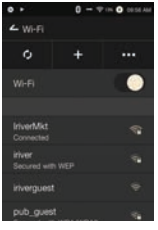
Wi-Fi

Connect to a Wireless Network

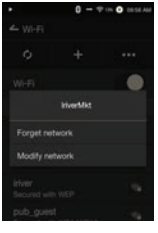
1. Long press [ ] from the Notification Bar or select [Settings - Wi-Fi] to display a list of Access Points (AP).



2. Select an appropriate AP to connect to the wireless network.
   - Additional information (encryption key, index, etc.) may be required depending on the network settings.



3. Long press the network name and select [Network Settings] to edit specific network settings.

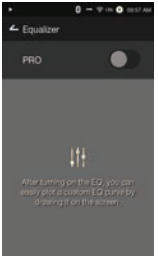


Networks requiring browser or other additional certifications are supported.

Equalizer

Equalizer Setup

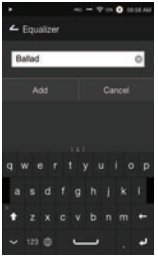
1. Long press [EQ] from the Notification Bar or turn on the feature from [Settings - Equalizer].



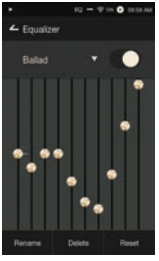
2. Press [Pro] from the drop-down list and select [Add New].



3. Enter a name for the custom EQ settings and select [Add].

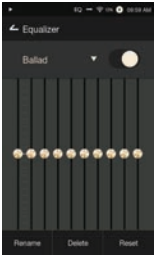


4. Adjust the frequencies according to the user's preferences.



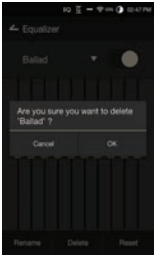
Reset Equalizer

1. Select the desired EQ setting and select [Reset] to revert the EQ to its default settings.



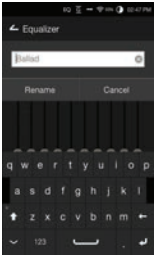
Delete Equalizer

1. Select [Delete] and choose the desired EQ setting for deletion.
2. Press [Confirm] to complete process.



Rename Equalizer

1. Select [Rename] and enter a new name for the EQ setting.
2. Press [Rename] to complete the process.



Safety Precautions

Device

- Displaying one image for an extended period may cause screen burn-in (afterimage).
- When a plug is inserted into the earphones, balanced, or USB port, do not apply any force or shock to the plug.
- Do not insert any metal (coins, hairpins, etc.) objects or flammable debris into the device.
- Do not place heavy objects on the device.
- In case the device gets wet (rain, water, chemicals, medicine, cosmetics, sweat, moisture, etc.), do not power on the device and allow it to dry thoroughly, then contact to the nearest iriver Customer Support Center. (Water-damaged devices will be repaired for a fee regardless of warranty status, but the device may not be repairable.)
- Avoid places with excess moisture, dust, or smoke.
- Never attempt to repair the device yourself.
- Avoid exposing the device to direct sunlight or extreme temperatures (-5℃ - 40℃ / 23°F - 104°F).
- Do not place the device near magnetic objects (magnets, TV, monitors, speakers, etc.).
- Never use chemicals or cleaning products on the device because doing so may alter the paint and surface coating.
- Avoid dropping or exposing the device to any strong impact (excessive vibration, etc.).
- Do not press multiple buttons simultaneously.
- Do not disconnect the Micro-USB cable during data transfer.
- Use a USB port at the back of the computer for USB connections. Connecting to a defective or damaged USB port may damage the device.
- Do not insert any foreign objects into the earphones port.
- Using poor quality protective films or adhesive stickers on the screen may cause damage.

Miscellaneous

- Do not use earphones/headphones or operate the product while operating any type of vehicle. Not only is it dangerous, it may be illegal in certain regions.
- Do not use the product during any physical activity (driving, walking, hiking, etc.).
- Always use in a safe environment to avoid the risk of an accident.
- Always be aware of your surroundings when using the device while moving.
- Avoid using the device during thunderstorms to reduce the possibility of electric shock.
- If you experience ringing in your ears, lower the volume or stop listening to the device.
- Do not listen to music at excessive volumes for extended periods.
- Do not use the earphones/headphones at excessive volumes.
- Be careful not to get the earphones/headphones caught in other objects.
- Do not sleep with earphones in your ears or leave them in for extended periods.

Trouble-shooting

Check for solutions to common problems.

1. The device won't turn on.
   - The battery may need to be recharged. Charge the device for at least one hour and try again.
   - Reset the device and try again.
2. The device will not charge when connected to a computer via USB cable.
   - Use a USB port on the back of the computer, and check that the USB port is functioning properly.
   - Check the USB cable connections.

3. The computer won't recognize the device or an error occurs when connected.
   - Use a USB port on the back of the computer.
   - Check the USB cable connections.
   - For Windows XP, verify that Service Pack 2 (or higher) and Windows Media Player 10 is installed.
   - Check that the device is connected properly on a different computer.
4. The screen turns off.
   - The screen turns off automatically after a defined period to reduce battery consumption. Set the time at [Settings - Power Saving - Screen Timeout].
5. The screen is not displaying properly.
   - Check whether debris is on the screen.
6. There is no sound or there's static.
   - Verify that the volume isn't set to [0].
   - Check that the earphones are plugged in properly, and make sure debris isn't in the port or on the plug.
   - Verify that the music file is not corrupted.
   - Verify that the audio settings have been properly set (balanced, line out, etc.)
7. File will not playback or a specific file causes instability.
   - The following may occur due to the condition of the file:
     - Playback is unstable or difficult.
     - The device may not function properly.
     - The file may sound different from a computer.
     - There may be a difference in the performance of playback or other functions.
     - The file may not be compatible with playback specifications.
   - A file conversion or using a different file is recommended.

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Certifi-cations

KCC / FCC / CE / TELEC

Class B Device (Communication equipment for residential use): This is a Class B Device and is registered for EMC requirements for residential use. This device can be used not only in residential areas but in all other areas.

FCCID: QDMAK240
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.

Specifications

General Specifications	
Model	AK240
Body Color	Gun Metal
Body Material	Aircraft Grade Duralumin
Display	3.31 inch WVGA (480x800) AMOLED Touch Screen
Supported Audio Formats	WAV, FLAC, WMA, MP3, OGG, APE (Normal, High, Fast), AAC, ALAC, AIFF, DFF, DSF
Sampling rate	FLAC, WAV, ALAC, AIFF: 8 kHz - 192 kHz (8/16/24 bits per sample) DSD Native: DSD64(1 bit 2.8 MHz), Stereo/ DSD128 (1 bit 5.6 MHz),
Output Level	Stereo Unbalanced 2.1 Vrms/ Balanced 2.3 Vrms (Condition No Load)
DAC	Cirrus Logic CS4398 x 2 (Dual DAC)
Decoding	Support up to 24 bit / 192 kHz Bit-to-Bit Decoding
Input	USB Micro-B input (for charging & data transfer (PC & Mac)) / Connection Mode: MTP (Media Device)
Outputs	PHONES (3.5 mm)/ Optical Out (3.5 mm) / Balanced Out (2.5 mm, only 4-pole supported)
Wi-Fi	802.11 b/g/n (2.4GHz)
Bluetooth	v4.0
Dimensions	2.59" (66 mm) [W] x 4.21" (107 mm) [H] x 0.68" (17.5 mm) [D]
Weight	6.5 oz. (185g)
Feature Enhancements	Firmware upgrade supported (OTA)
Audio Specifications	
Frequency Response	±0.023 dB (Condition: 20 Hz - 20 kHz) Unbalanced & Balanced / ±0.3 dB (Condition: 10 Hz - 70k Hz) Unbalanced & Balanced
S/N	116 dB @ 1 kHz, Unbalanced / 117 dB @ 1 kHz, Balanced
Crosstalk	130 dB @ 1 kHz, Unbalanced / 135 dB @ 1 kHz, Balanced
THD+N	0.0007% @ 1 kHz, Unbalanced / 0.0005% @ 1 kHz, Balanced
IMD SMPTE	0.0004% 800 Hz 10 kHz (4:1) Unbalanced/ 0.0003% 800 Hz 10 kHz (4:1) Balanced
Output impedance	1 ohm
Clock Jitter	50 ps (Typ)
Memory	
Built-in Memory	256 GB[NAND]
External Memory	microSD (Max. 128 GB) x 1
Battery	
Capacity	3,250 mAh 3.7V Li-Polymer Battery
Supported OS	
Supported OS	Windows XP, Windows 7,8 (32 & 64 bit) Mac OS X 10.7

Trademarks

Windows 2000, Windows XP, Windows Vista, Windows 7, Windows 8, and Windows Media Player are Trademarks of Microsoft Corp.

Disclaimers

The manufacturer, importer, and distributor shall not be liable for damages including accidental and personal injury due to the improper use or operation of this product. The information in this user manual was written based on current product specifications. The manufacturer, iriver Limited, is currently adding new complementary features and will continue to apply new technologies in the future. All standards are subject to change without prior notice.

There is no warranty against data loss due to the use of this product.