AK380

Astell&Kern

INSTRUCTION BOOK
User Guide

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Getting Started _01

Using the Device _02

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Package Contents

Components may be changed without prior notice to improve the performance or quality of the product.
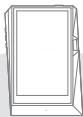
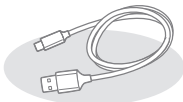**AK380**

Leather Case (Including 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.
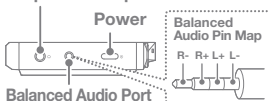**Warranty Card:** The warranty card is required for customer & technical support. Do not misplace the card.
User Guide: The User Guide can be downloaded from the Astell&Kern website. [http://www.astellnkern.com/ > Support > Download].
microSD Card Slot Cover : The cover is used to protect the microSD card slot when not in use. It is installed on the product by default.

AK380 at a Glance

The appearance of the product as well as printed and engraved information may vary depending on the model.
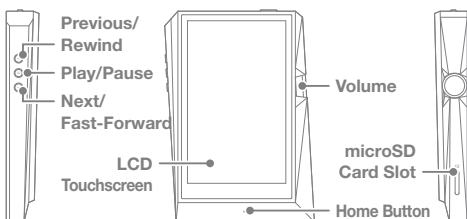
Earphones / Optical Port

Earphones / Optical Port: Output sound to connected earphones. Music can be played back on an S/PDIF-capable external device by using an optical cable.

Power: Turn the screen on and off.

Long press - Turn the device on and off.

Balanced Out: 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.

Expansion Unit Balanced Out: Output sound to an expansion device that supports balanced audio connections.

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.
LCD Touchscreen: Display with touch control.
Volume: Control the volume by turning the wheel.
microSD Card Slot: Insert a microSD card and access its files.
Home Button: Show the home screen.

Power Management

Turn the Device On/Off

1. Long-press the [Power ⬭ ◦] button to turn on the device.
2. While the device is on, long-press the [Power ⬭ ◦]
   button to display a shutdown confirmation 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. [⚙ - Power - Auto Power Off] (See p. 43)**

Turn the Screen On/Off

1. While the screen is on, press the [Power ⬭ ◦] button to turn off the screen.
2. Press the [Power ⬭ ◦] button again to 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. [⚙ - Power - Auto Power Off] (See p. 43)**

Reset Function

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

❗ Resetting the device will not affect the stored data or time setting.
Do not use the reset function while the product is in use. Doing so may corrupt the data on the device.

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 charging time may vary depending on whether the device is turned On or Off. The maximum charge time with a 5V 2A charging adapter is 4 hours. (Fully discharged battery and power Off.)
If the device is On and/or being used while charging, the charging 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 or 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 (e.g. keyboard or USB hub without a dedicated power supply) will increase the charging time.
Do not use any Micro-USB cable other than the one supplied with the device. Doing so may cause a malfunction.
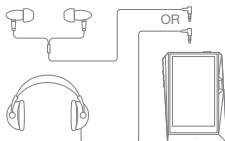
Connec-
tions

Earphones/Headphones

1. Connect earphones or headphones to the earphones port.
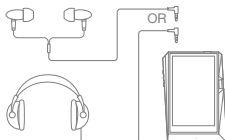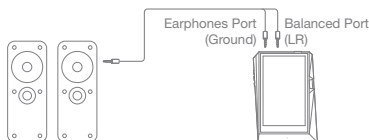

Balanced Earphones/Headphones

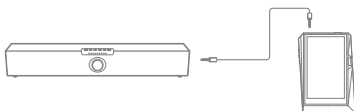1. Connect supported earphones or headphones to the balanced port.

Balanced Audio Device

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

Earphones Port (Ground)   Balanced Port (LR)

Optical Out

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

> ⓘ **DSD format is converted to PCM when using Optical Out.
> The volume will be fixed at the maximum level.**

Connecting to a Computer

1. Turn on the device and your PC.
2. Connect the device to your PC as a standard USB
   device by using a Micro-USB cable. [○ - Connect USB].
   - Media Device (USB Drive): Transfer files from the PC to
     the device.
   - DAC Input: Listen to music from the PC on the device.
     (See pp. 33-37)
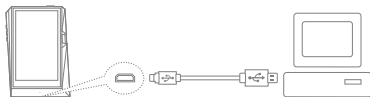
> ⓘ **Mac users need to download and install the MTP program
> from the Astell&Kern website. [http://www.astellnkern.com
> > Support > Download]
> For an optimal connection, quit any unnecessary programs
> before connecting the device to the computer.
> Do not use any Micro-USB cable other than the one
> supplied with the device.**

> **Windows XP users require Service Pack 2 and Windows Media Player 10 to be installed for the computer to recognize the USB device.**
> **Download Windows Media Player and required Service Packs 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 (e.g. file transfer) may corrupt data on the device.**

Copy Files/Folders to the Device

1. To copy files/folders from your computer, select the desired files/folders and drag & drop them into the USB device.
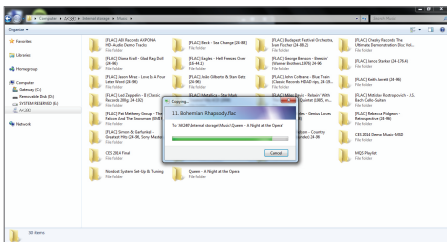
> ⚠ **Make sure that the Micro-USB cable is securely connected.**
> **Please note that removing the Micro-USB cable or turning off the device or computer during a file transfer may corrupt data on the device.**
> **File transfer speeds may be affected by the computer and/or the OS environment.**
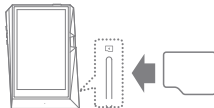
Delete Files/Folders on the Device

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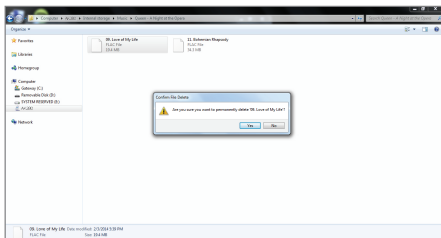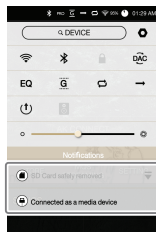

Insert/Remove a microSD Card

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 [⚙ - System Information].

3. Gently press the microSD card to release it from the slot.

Recommended microSD Cards

Brand: SanDisk, Transcend

> **⚠ Maximum applicable storage capacity of microSD card: 128 GB**
>
> 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 malfunctions or is unable to recognize the micro SD card, format the memory card as FAT32 before use.
> - Using microSD cards other than the recommended brands may cause the device to malfunction.
> - 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 be displayed on the 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 45 for connecting to a wireless network.
> The firmware upgrade may not initialize if 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 while downloading 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 [⚙ - Update - System Update].

Basic
Operations

**Using the LCD Touchscreen**

1. This device features an LCD touchscreen that allows you
   to perform operations by touching the screen.
   Interact with the device by touching the screen to access
   various features.

> ⚠ **To prevent damage to the screen, do not use a sharp
> object or excessive force.**

Return to the Home Screen

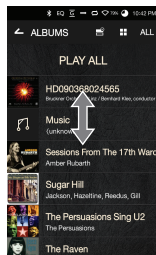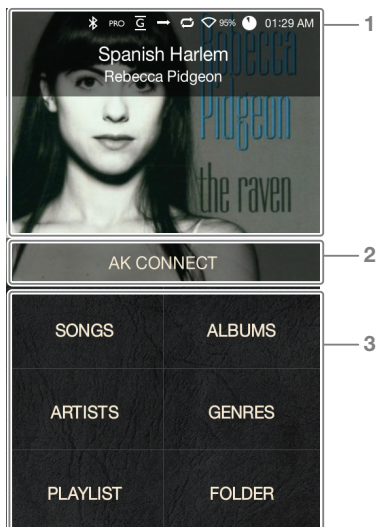1. Press the [Home] button at any time to return to the Home
   Screen.
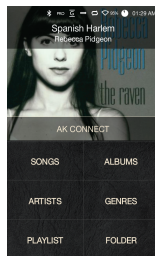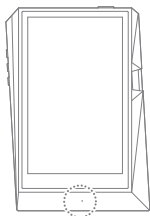
Home Screen

> ⚠ **The [Home] button on the AK380 is pressure-sensitive and
> can be operated with light pressure.**

Moving up/down in the list

1. You can scroll through the list by dragging the list screen [up] and [down].

Home Screen

1	Current Song	Currently-playing song information.
2	AK Connect	Launches AK Connect.
3	Search Options	View the list of songs by different search options.

> The search options can be long-pressed and dragged to change their locations.

Notification Bar Screen

1 — ✳ PRO G̲ → ⇄ 🤶 95% 🕐 01:29 AM

9 — Q DEVICE

10 — ⬡

2 — 📶

11 — DAC

3 — ✳

12 — 🔒

4 — ≣Q

13 — →

5 — G̲

14 — ⇄

6 — ↻

7 — ▣

15 — ☀

8 — **Notifications**

💾 SD Card safely removed

🖥 Connected as a media device

PLAYLIST   FOLDER

1		Notification Bar	Expand or collapse the notification bar by dragging the bar down or up, respectively.
2	🛜	Wi-Fi	Press [🛜] to turn Wi-Fi on or off.
3	✻	Bluetooth	Press [✻] to turn Bluetooth on or off.
4	EQ	EQ	Press [EQ] to turn the EQ on or off. The most recent EQ settings are applied by default.
5	G	Gapless Playback	Press [G] to turn gapless playback on or off.
6	(↑)	Line Out	Turn Line Out on or off.
7	🔊	Wi-Fi Speakers	Turn Wi-Fi speaker functionality on or off. (Enabled when speakers are connected.)
8		Notifications Display	Notification contents are displayed in this area.
9	Q DEVICE	File Search	Enter keywords to display a list of items containing the search terms.
10	⚙	Settings	Displays a list of settings.
11	DAC	PC Connection Mode	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.

12	🔒	Screen Lock	Press [🔒] to turn the screen lock on or off. The volume wheel is disabled when the screen is locked.
13	→	Play Mode	Press [→] to cycle through different play modes. → : Sequential playback. ⤫ : Shuffle playback.
14	⇄	Repeat Mode	Press [⇄] to cycle through different repeat modes. ⇄ : Repeat the entire playlist. 🔂 : Repeat the current song. ⇄ : Disable repeat mode.
15	☼	Screen Brightness	Use the adjustment bar to control the display brightness.

> ❗ **Long press [🛜 / EQ / ∗]to move to the corresponding screen.**

AK CONNECT

The AK380 can access or download music files stored on a computer on the same network. Music can be played through Astell&Kern speakers.

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 help menu within the MQS Streaming Server for detailed information.

> **Please refer to the following PC/Mac minimum system requirements.**
> **PC Minimum System Requirements**
> ● **OS : Windows XP, Windows 7/8 (32 & 64-bit)**
> **Mac Minimum System Requirements**
> ● **Mac OS X Lion (10.7) or later**

Connecting to the MQS Streaming Server

1. Turn on the MQS Streaming Server and connect to the same network to which the AK380 is connected.
   ● Run the MQS Streaming Server from the PC.
2. Turn on [AK Connect] from the device settings.
3. Press [AK Connect] from the home screen.
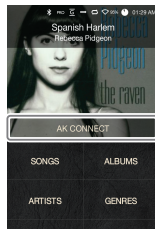
4. A list of servers on the same network as the AK380 will be displayed.
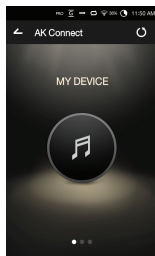
5. Scroll the screen left and right to select a server. The selected server will be connected and the server home screen will be displayed.
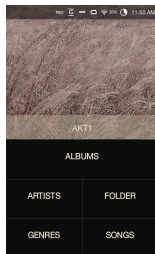
6. Select a search option at the bottom of the server home screen to display a list of music.

! Refer to page 45 for connecting to a wireless network.

Music 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. Press the [▤] button at the
   upper-right corner of the music list.
4. Select the music to be downloaded,
   and then press the [⬇] button at
   the top of the screen to begin
   downloading.
   • A message on the Notification
     Bar will indicate a completed
     download.
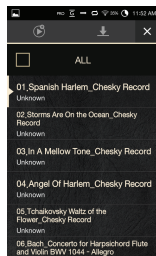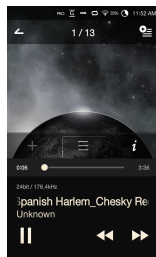
> ⚠ **Depending on network conditions, song loading may be slow or streaming may stutter.**
> **Server response may be slow when the server computer is under load.**
> **Depending on network conditions and server status, the AK380's performance may be affected when streaming and downloading at the same time.**
> **Terminating music streaming or pressing the item being downloaded within the Notification Bar will stop the downloading.**

Selecting Speakers

1. Turn on the speaker(s) to be connected, and then connect it to the same network as the AK380.
2. Turn on [AK Connect] from the device settings.
3. Press [ ] from the notification bar to display a list of speakers available on the same network as the AK380.

4. Scroll the screen left and right to select a speaker. The selected speaker will be connected, and music will be played back through the speaker.
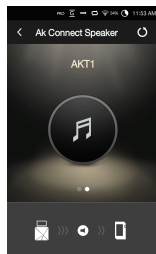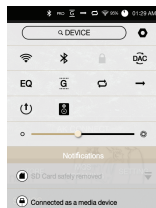
AK Connect Usage Example

Case 1

AK380
LIBRARY

AK T1
SPEAKER

Case 2

AK500N	AK380	AK T1
LIBRARY	REMOTE	SPEAKER

Case 3

AK380	AK500N
REMOTE & LIBRARY	SPEAKER

Case 4

AK380
LIBRARY

AK500N
REMOTE

AK T1
SPEAKER

Case 5

AK380
LIBRARY

or

AK500N
LIBRARY

AK Connect APP
REMOTE

AK T1
SPEAKER
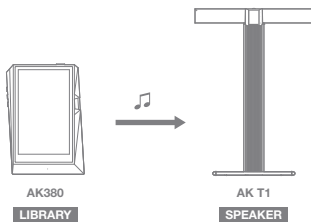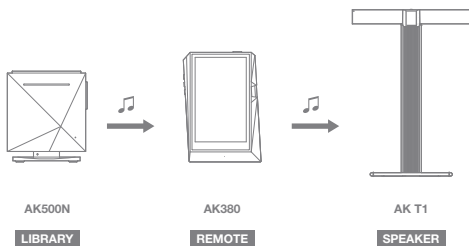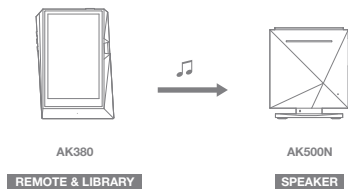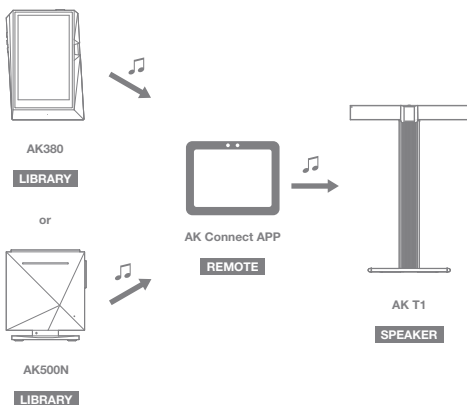
Listening to Music

Selecting Music

1. Select a search option at the bottom of the home screen to display the playlist.
2. Select a song from the list to begin playback.

> ⓘ **Select [Folder] to search music by folder.**
> **Continuous Playback: Approximately 10 hours (Basis: FLAC, 16-bit, 44 kHz, unbalanced output, volume 80, EQ Off, LCD Off)**
> **Supported Formats: PCM [8 – 384 kHz (8/16/24/32-bit)] DSD [2.8/5.6 MHz]**

Listening to Music

- Press [▤⊚] at the top of the music list to display music options.
    - ⓖ : Add the selected file after the current/last song of the current playlist.
    - ▤⊚ : Add the selected file to the playlist.
    - 🗑 : Delete the selected file.
    - 🗐 : Copy the selected file.
    - ⇨ : Move the selected file.
- 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.
    - ∘ You can also pause/resume playback by pressing the [I⟩] button on the device.
- Press [◀◀ / ▶▶] during playback for the previous/next song.
    - ∘ You can also play the previous/next song by pressing the [⟨ / ⟩] button on the device.

- Long-press [◀◀ / ▶▶] during playback to rewind/fast-forward.
  - You can also rewind/fast-forward by pressing the [⟨ / ⟩] button on the device.
- Drag the progress bar to the desired location during playback.
- Press the [Home] button on the device to go to the Home Screen.
- Press the album cover during playback to display an additional screen.
  - ◢ : Display the previous screen.
  - ⊙≡ : Display the current playlist.
    - Press [≡] next to the playlist to edit the playlist order.
    - Press [◼] at the top of the music list to display music options.
      - ≣ : Add the selected file to the playlist.
      - 🗑 : Delete the selected file.
  - + : Add the current song to the playlist.
  - ≡ : Display lyrics for the current song.
  - *i* : Display current song information.

Playlist Screen
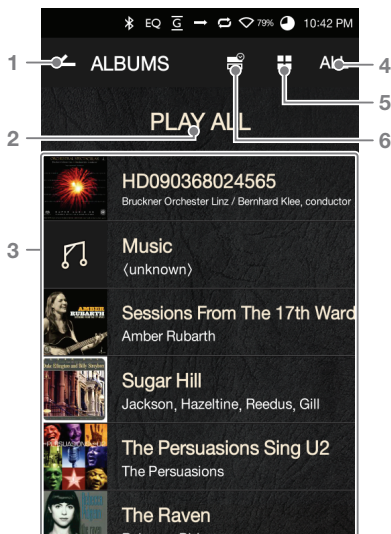
1	Current Location	Indicates the current location. Press to return to the previous screen.
2	Play All	Play all songs from the current playlist.
3	Playlist	Displays the playlist for the current location. Long-press a song to add it to or remove it from the playlist.
4	List Sorting	Select a method for sorting the playlist.
5	List View	Select a view type for the list of albums.
6	Music Options	Select the checkbox to apply playlist options.
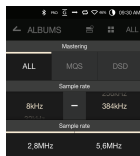
Music Player Screen

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

3	≡	**Lyrics**	Lyrics for the current song.
4	+	**Add to Playlist**	Add the current song to a playlist.
5		**Song Progress**	Indicates song duration.
6		**Details**	Displays bitrate and sampling frequency data.
7		**Title**	Song title information. File name is displayed when ID3 metadata is unavailable.
8		**Artist**	Artist name.
9	▶/Ⅱ	**Play/Pause**	Play or pause the current song.
10	⚏	**Playlist**	Displays the current playlist.
11	*i*	**Details**	Displays current song information.
12		**Song Duration**	Indicates the song's total duration. Press to switch from elapsed time to remaining time.
13		**Progress Bar**	Indicates song progress. Drag the indicator to move to the desired time.
14	◀◀	**Previous/ Rewind**	Short press: Previous song. Long press: Rewind the current song.
15	▶▶	**Next/ Fast-Forward**	Short press: Next song. Long press: Fast-forward the current song.

Playlist Manage-ment

Creating a Playlist

1. Press [Playlist - Playlists] from the home screen to display a list of playlists.
2. Press [+] at the upper-right corner of the screen.
3. Enter a name for the playlist, and then press [Add] to create a new playlist.
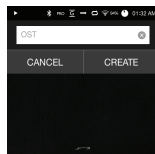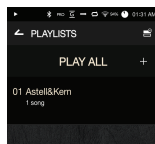
Adding a Song to a Playlist

1. Press [Playlists] to display a list of playlists.
2. Select a playlist and press [+ Add] to display a list of songs.
3. Select the desired song, and then press [+ Add] to add the song to the selected playlist.
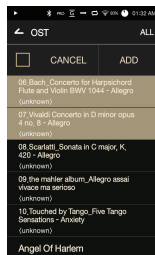
Removing a Song from a Playlist

1. Press [Playlists] to display a list of playlists.
2. Select the desired playlist, and then press [![icon]] at the top of the screen.
3. Select the desired song, and then press [![icon]] to remove the song from the selected playlist.
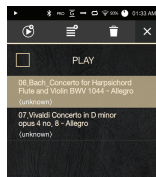
Editing the Playlist Order

1. Press [![icon]] next to the playlist to modify the playlist order.
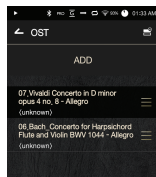
Playing a Playlist

1. Press [Playlists] to display a list of playlists, and then press [![icon]] at the top of the screen.
2. Select the desired playlist for playback.
3. Press [![icon]] at the top of the screen to add the selected playlist after the current/last song of the current playlist.
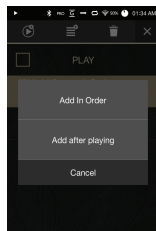
Renaming a Playlist

1. Press [Playlists] to display a list of playlists, and then press [🖍] at the top of the screen.
2. Select a playlist to be renamed.
3. Press [🖍] at the top of the screen to display a rename window.
4. Enter a name for the playlist, and then press [Rename] to save the playlist under a new name.
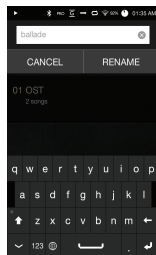
Deleting a Playlist

1. Press [Playlists] to display a list of playlists, and then press [🖍] at the top of the screen.
2. Select the playlist to be deleted.
3. Press [🗑] at the top of the screen to delete the selected playlist.
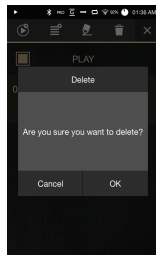
USB DAC Installation

The USB DAC functionality allows the AK380 to be recognized as a sound card on the computer. Music from the computer is played through the device's earphones port 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: PCM [8 – 384 kHz (8/16/24/32-bit)]
    DSD [2.8/5.6 MHz]
- Control the volume with the AK380's volume wheel.

> ⚠ **Playback is unavailable when settings exceed the support formats.**
> **Volume control is unavailable when the LCD screen is turned off during USB DAC connection.**
> **The Previous, Play, and Next buttons are unavailable during USB DAC connection.**
> **Playback may stutter when computer performance is slow or the USB connection is experiencing 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 [⬠ - 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.

● However, when the following screen is displayed, verify that [DAC Input] is selected under [⬠ - Connect USB].
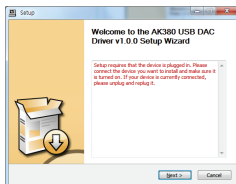
5. Click [Browse] to select the driver destination folder and click [Install].
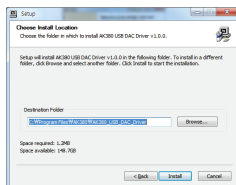
6. When the following screen is displayed, click [Finish] to complete the installation.
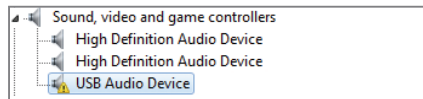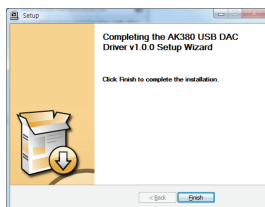
< Before driver installation >
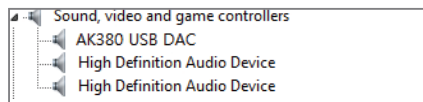
< After driver installation >

7. Change the default 'Sound Output' device according to the operating system as seen in the images below.
   • Windows XP: Control Panel > Sound and Audio Devices > Audio tab > Change the default audio device under 'Sound playback' to [AK380 USB DAC].
   • Windows 7/8: Control Panel > Hardware and Sound > Manage Audio Devices > Right-click [AK380 USB DAC] and select [Set as default device].

< Windows XP >
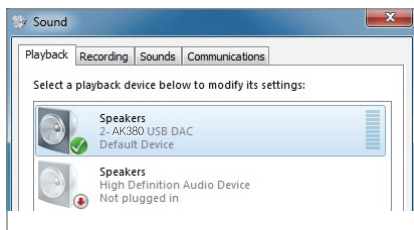
< Windows 7 >

> ⓘ **Hi-Fi audio playback on Windows 7/8: Control Panel > Hardware and Sound > Manage Audio Devices > Double-click [AK380 USB DAC] > Advanced tab > Default format > Select [24-bit, 192000 Hz] (Recommended)**
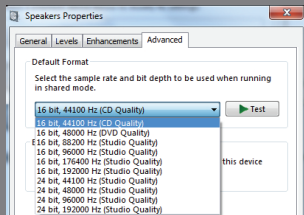
● Mac OS X: System Preferences > Sound > Output tab > Select [AK380 USB DAC].
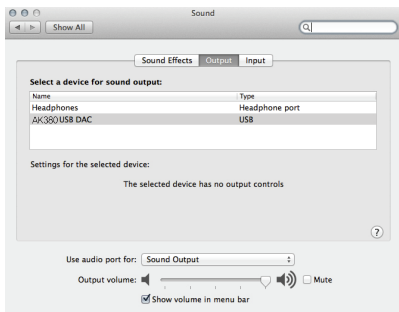
> ⓘ **This step is only required for the initial setup procedure. No additional steps are necessary after selecting the AK380.**

Using Bluetooth

Connect a Bluetooth device to listen to music wirelessly.

Turning Bluetooth On/Off

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

1. Select [✳] from the home screen, or select [On/Off] from [⚙ - Bluetooth].
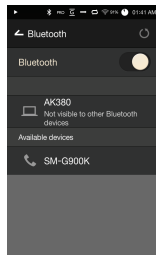
Bluetooth Pairing

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

> ⚠ **Refer to the Bluetooth device's instruction manual for details.**

Terminating a Bluetooth Connection

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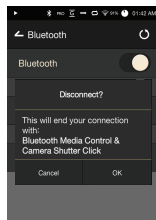
Removing a Bluetooth Pairing

1. Press [⇄] on the right side of the paired device to be directed to the settings screen.
2. Select [Remove Pairing] to complete the process.
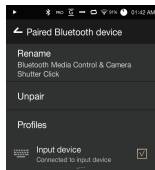
⚠ **Bluetooth Support Specifications**
 • **Profile: A2DP**
 • **Device performance may be affected during Hi-Fi playback. (48 kHz or lower is recommended)**
 DSD playback is unavailable via Bluetooth.
 Do not turn off the device while connected to Bluetooth.
 Power cycle the Bluetooth device in case of malfunction.
 Pairing methods may differ for each individual Bluetooth device. Always refer to the respective instruction manual for details.
 When connecting the product to a Bluetooth device, the distance between the two must be within 20 cm.
 Audio quality will degrade with longer distances, and the pairing may disconnect at a distance of 2 m (6.5 ft) or more. (Distances may vary depending on device and environment.)
 Crosstalk may be heard 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.
 • **Signal interference affects data transmission. (e.g. holding the device while wearing a Bluetooth device, holding the device while holding another electronic device, etc.)**
 • **The device or Bluetooth headset's radio transmitters are affected by touching parts of the body.**
 • **Transmission strength is affected by walls, corners, partitions, etc.**
 • **Devices using the same frequencies may cause interference. (e.g. medical devices, microwave ovens, Wi-Fi, etc.)**
 • **Areas with an excessive amount of interference or weak signals (e.g. elevators, underground, etc.) affect performance.**

Settings

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

Setup

1. Select [⚙] from the home screen notification bar.
2. Select the desired item for setup.

Wi-Fi

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

> **❗ Refer to page 45 for more information on connecting to a wireless network.**

Bluetooth

● Connect a Bluetooth device to listen to music wirelessly.

> **❗ Refer to [Using Bluetooth] on page 38 of the manual for more information on setting up a Bluetooth connection.**

AK CONNECT

● Set whether to use AK Connect

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.

> ⚠ **EQ Supported Formats : PCM [8 ~ 192kHz(8/16/24bit)]**
> **Equalizer is not supported during DSD, 32bit playback.**
> **Using the equalizer may negatively affect device performance.**
> **Refer to pages 46-48 of the manual for more information**
> **on using the equalizer.**

Gapless Playback

- Play the next song without any interruption/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 and pressing [Line Out] in the volume control window will lock the volume level at maximum and therefore cannot be adjusted.

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

Left-Right Balance

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

AMP

● Set the amplification level for amp connection.

Screen Brightness

● Adjust screen brightness settings.

Theme

● Change the theme.

Date & Time

● Set the current date, time, and region.

Device Name

● Designate the device name.
  ○ You can set up to 30 characters.

Language

● Select a language.
  ○ English, Korean, Japanese, Chinese (Simplified / Traditional)

Keyboard

● Select a language for the keyboard.
  ○ 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.

USB Connection

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

Download

- Select a folder for downloaded files.

> ⓘ The default folder is set when using AK Connect to download files. When [Select Folder] is selected, the user is prompted to choose a download folder each time a file is downloaded.

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

- Database Initialization: Reset the internal database. The database initialization time may vary depending on the number of files stored on the device.
- 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.

Connecting to a Wireless Network

Connecting to a Network

1. Long-press [📶] from the Notification Bar or select [⚙ - Wi-Fi] to display a list of access points (AP).
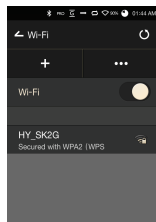
2. Select the desired AP to connect to the wireless network.
   • Additional information (encryption key, index, etc.) may be required depending on the network settings.
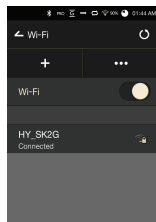
3. Long-press the network name and select [Network Settings] to edit specific network settings.
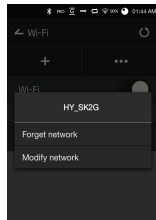
⚠ **Networks requiring browser or other additional certifications are not supported.**
Channels 1 through 11 are supported.

Equalizer Setup

Equalizer Setup

1. Long-press [EQ] from the Notification Bar, or turn on the feature from [⚙ - Equalizer].
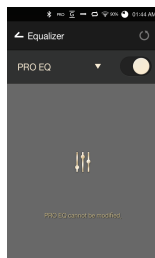
2. Press [Pro EQ] at the upper-left corner of the screen and select [+].
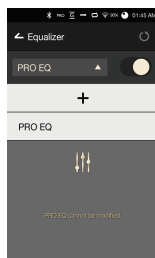
3. Enter a name for the custom EQ settings and select [Add].
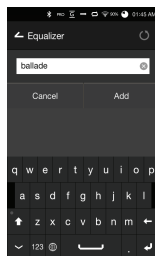
4. Adjust the frequencies left and right according to the user's preferences.

5. The number values at the lower-left corner of the screen can be adjusted for fine-tuning.
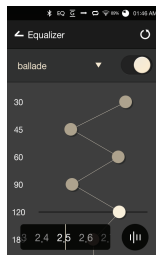
6. Press [ı|ıı] at the lower-right corner of the screen to display the PEQ settings screen. The frequency, gain, and Q values can be adjusted according to the user's preferences.
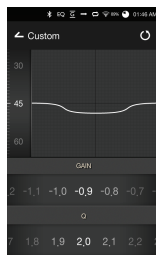
Resetting the Equalizer

1. Select the desired EQ setting and press [↻] at the bottom of the screen to revert the EQ to its default settings.
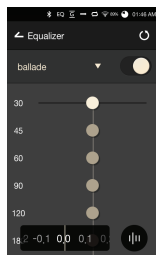
Deleting an Equalizer

1. Press [Pro EQ] at the upper-left corner of the screen.
2. Press [🗑] next to the desired item to delete the selected equalizer.
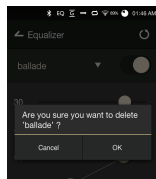
Renaming an Equalizer

1. Press [Pro EQ] at the upper-left corner of the screen.
2. Press [🖉] next to the desired item and enter a new name for the selected equalizer.
3. Press [Rename] to apply the changes.
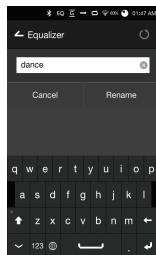
Safety Precautions

Device

- 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 objects (coins, hairpins, etc.) or flammable debris into the device.
- Do not place heavy objects on the device.
- In case the device gets wet (water, chemicals, medicine, cosmetics, sweat, etc.), do not power on the device. Allow it to dry thoroughly and then contact the nearest iriver Customer Support Center. (Malfunctions due to exposure to liquids will be repaired for a fee regardless of the warranty period and such damage may not be repairable.)
- Avoid using or storing the device in direct sunlight (e.g. inside a car in the summer).
- Do not use or store the device in hot and humid areas.
- Do not use or store the device areas with excess dust, smoke, or debris.
- Avoid placing the device on blankets, heated mats, or carpets for extended periods of time during use.
- Do not place the device near a fire, heat source, or in a microwave.
- Never attempt to disassemble, repair, or alter the product.
- Do not store the device in confined spaces with the power on for extended periods of time.
- Do not place the device near magnetic objects (magnets, televisions, monitors, speakers, etc.).
- Never use chemicals or cleaning products on the device as they can alter the paint and surface coating.
- Avoid dropping or subjecting the device to a strong impact (excessive vibration, etc.).
- Do not press multiple buttons simultaneously.

- Do not disconnect the Micro-USB cable during data transfer.
- When connecting the Micro-USB cable, use a USB port on the back of the PC. Connecting to a defective or damaged USB port may damage the device.
- Displaying one image for an extended period may cause screen burn-in (afterimage).
- Using poor quality protective films or adhesive stickers on the screen may cause damage.
- Do not insert any foreign objects into the earphones port.

Other

- Do not use earphones/headphones or operate the product while controlling any type of vehicle. It is not only dangerous but may be a violation of the law in certain regions.
- Do not use the product during physical activities (driving, walking, hiking, etc.).
- Always use in a safe environment to avoid the risk of accidents.
- 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 there is a ringing in the ears during or immediately after use, reduce the volume or discontinue using the product and consult a medical professional.
- 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 that the USB cable is connected correctly
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 that the USB cable is connected correctly.
    - For Windows XP, verify that Service Pack 2 (or higher) and Windows Media Player 10 (or higher) are installed.
    - Check if the device connects properly on a different computer.
4. The screen turns off repeatedly.
    - The screen turns off automatically after a defined period to reduce battery consumption. Set the time at [◯ - Power Saving - Screen Timeout].
5. The screen does not display images properly.
    - Check the screen for debris.
6. There is no sound, or there is static/interference.
    - Check that the volume setting is above [0].
    - Check that the earphones are plugged in properly, and make sure debris isn't obstructing the port connection.
    - Check if the music file is corrupted.
    - Verify that the audio settings have been properly set. (balanced, line out, etc.)

7. A file does not play, or the product is unstable when a certain file is used.
   - 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 use of a different file is recommended.

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The AK380 was designed and audio-tuned under the advisement of MSD.

Certifi-
cations

KC / 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 in
residential areas and all other areas.

> **(!) FCCID: PPF21**
> **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.**

Registered
Trademarks

Windows 2000, Windows XP, 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 adding
new complementary features and will continue to apply new
technologies in the future. All specifications may be changed
without prior notice. There is no warranty against data loss
due to the use of this product.

Specifications

General Specifications

Product Name	AK380
Model	PPF21
Body Color	Meteoric Titan
Body Material	Aircraft Grade Duralumin
Display	4inch WVGA(480x800) Touch Screen
Supported Audio Formats	WAV, FLAC, WMA, MP3, OGG, APE(Normal, High, Fast), AAC, ALAC, AIFF, DFF, DSF
Sample rate	PCM : 8kHz ~ 384kHz (8/16/24/32bits per Sample)
	DSD Native: DSD64(1bit 2.8MHz), Stereo/ DSD128(1bit 5.6MHz), Stereo
Output Level	Unbalance 2.2 Vrms/ Balance 2.3 Vrms (Condition No Load)
DAC	AKM AK4490 x 2(Dual DAC)
Decoding	Support up to 32bit / 384kHz Bit to Bit Decoding
Input	USB Micro-B input(for charging & data transfer [PC & MAC])/ Connection Mode: MTP(Media Device)
Outputs	PHONES(3.5mm)/ Optical Out(3.5mm)/ Balanced Out(2.5mm, only 4-pole supported)
Wi-Fi	802.11 b/g/n(2.4GHz)
Bluetooth	V4.0 (A2DP, AVRCP)
Dimensions	3.14"(79.8 mm)[W] x 4.42"(112.4 mm)[H] x 0.70"(17.9 mm)[D]
Weight	8.11oz. (230g)
Feature Enhancements	Firmware upgrade supported(OTA)

Audio Specifications

Frequency Response	±0.053dB (Condition: 20Hz~20kHz) Unbalance / ±0.053dB (Condition: 20Hz~20kHz) Balance
	±0.56.dB (Condition: 10Hz~70kHz) Unbalance / ±0.55.dB (Condition: 10Hz~70kHz) Balance
S/N	116dB @ 1kHz, Unbalance/ 117dB @ 1kHz, Balance
Crosstalk	130dB @ 1kHz, Unbalance/ 135dB @ 1kHz, Balance
THD+N	0.0008% @ 1kHz, Unbalance/ 0.0007% @ 1kHz, Balance
IMD SMPTE	0.0007% 800Hz 10kHz(4:1) Unbalance/ 0.0006% 800Hz 10kHz(4:1) Balance
Output impedance	Balanced out 2.5mm (1ohm) / PHONES 3.5mm (2ohm)
Clock Jitter	30ps(Typ) / Reference Clock Jitter (VCXO Clock) 0.2ps(Typ)
Reference Clock Jitter	0.2ps(VCXO Clock)

Storage Capacity

Built-in Memory	256GB[NAND]
External Memory	microSD(Max. 128GB) x 1

Battery

Capacity	3,400mAh 3.7V Li-Polymer Battery

Supported OS

Supported OS	Windows XP, Windows 7,8(32/64bit)
	MAC OS X 10.7. and up