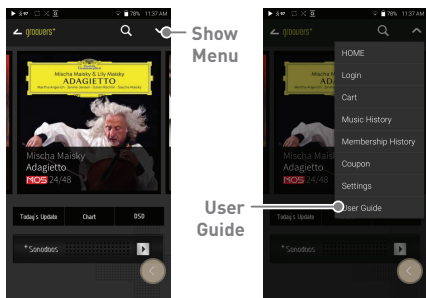Music Services

Listen to streaming services or purchase music from Services in the Main Menu when connected to a wireless network. (Streaming services and ability to purchase music vary by country. Not all services are available in all countries.)

Streaming or Purchasing Music

1. Connect to a wireless network.
2. Select [Services] from the Main Menu.
3. Select from the the list of service options available.
4. Check the user guide or help menu within each service for detailed information.
   ● Select [Menu > User Guide] within the Groovers Services for detailed instructions.

Show Menu

User Guide

For Wi-Fi connections, see Page 47.
Currently supported services are Groovers and Tidal.

Using Open APP Service

The Open APP Service enables the user to install specific APK music streaming apps to the device. Copy the desired APK into the Open Service folder of the product and install the relevant App in the Menu-Service of the product.

> ❗ **The source of the app you are trying to install is unknown. Be aware that if the app is installed, the device may be damaged and personal data compromised. Depending on the APP, some functions may not work.**
> **If you install an app from an unknown source, despite this warning, the company is not responsible for any damages to the device and data resulting from the app's installation, and downloading and installing such apps may limit the scope of after-sales services provided under the manufacturer warranty.**

AK CONNECT

Access and play back music files stored on a computer, NAS drive or AK Device on the same network, as well as output sound through compatible speakers with AK Connect.
AK Connect is available on your AK device and also available as an app for your smartphone or tablet via Apple's App store or Google Play Store.

MQS Streaming Server for your Computer

1. In order for your computer to be visible by AK Connect, on your computer, visit the Astell&Kern website and download the MQS Streaming 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.

> ⓘ Please refer to the following computer minimum system requirements.
> ● **Minimum Computer Requirements**
>   OS: Windows 7/8/10 (32 & 64-bit)
> ● **Mac Requirements**
>   OS X 10.7 (Lion) or later

**Using AK Connect to Link Music Libraries/Speakers**

1. Turn on the music library device and/or speaker and AK player.
   ● To access the music library on your computer, you must also open and run the MQS streaming serveron your computer.
2. Connect all devices to the same Wi-Fi network.
3. Turn on the AK CONNECT feature by pressing and holding [λ] in the Notification Bar or selecting [Menu-Settings-AK CONNECT].
4. Press [AK CONNECT] on the Main Menu.
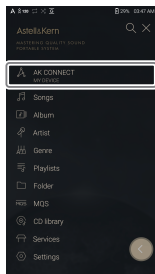
5. A list of libraries / speakers that are on the same network with the AK player will be displayed.
6. Select a library / speaker to connect.
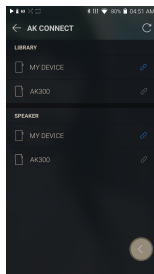
7. After selecting a library / speaker, select a category from the menu to display the corresponding music list.
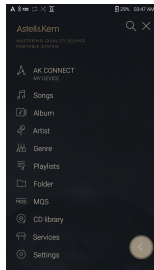
Streaming Music from Your Library

1. Select a category from the library
   menu to see your list of music.
2. Select a song to begin streaming.

Downloading Music from Your Library

1. Select a category from the library
   menu to see your list of music.
2. Press [⌐✓] button at the upper-
   right corner of the music list.
3. Select the desired music and
   press [↓] to initiate the
   download.
   • A message on the Notification
     Bar will indicate when the
     download is complete.
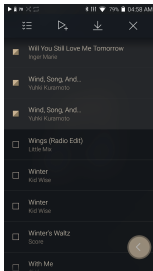
> ⚠ Depending on network conditions, song loading may be slow and
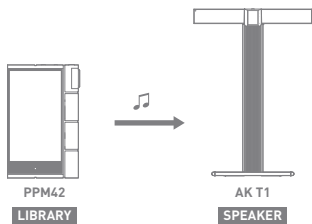> streaming may stutter.
> Performing other operations on the linked computer may cause
> slower response time.
> If you stream and download at the same time, it may slow the
> device's response time depending on the speed of the Wi-Fi network
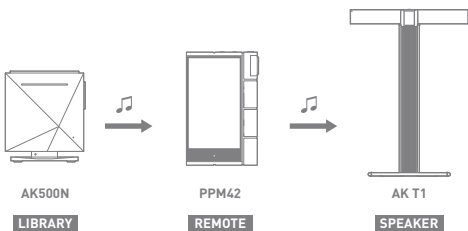> or server.
> To stop a download in progress, tap the notification in the Notification
> Bar to go to the download screen. Then, select the items to pause or
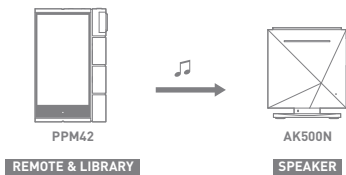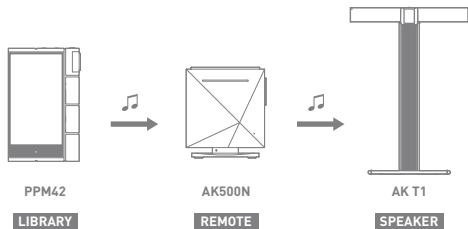> delete.

AK Connect Usage Examples

Case 1

PPM42
LIBRARY

AK T1
SPEAKER

Case 2

AK500N
LIBRARY

PPM42
REMOTE

AK T1
SPEAKER

Case 3

PPM42

REMOTE & LIBRARY

AK500N

SPEAKER

Case 4

PPM42

LIBRARY

AK500N

REMOTE

AK T1

SPEAKER

Case 5
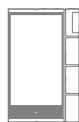
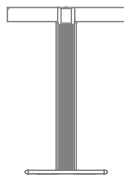**PPM42**

`LIBRARY`

or

AK500N

`LIBRARY`

AK Connect APP

`REMOTE`

AK T1

`SPEAKER`

Listening to Music

Selecting Music

1. Select a category from the Main Menu to display the corresponding music list.
2. Select a song from the list to begin playback.

> ⚠ **Select [Folder] to search music by folder.**
> **Continuous Playing Time: Approx. 10 hours 30 minutes [Music: FLAC,16bit, 44.1kHz, Unbalanced, Volume 80, EQ Off, LCD Off]**
> **Supported Formats: PCM [8~384kHz(8/16/24/32bit)]**
> **DSD [2.8/5.6/11.2MHz]**

Listening to Music

- To search, press [🔍] on the menu list and enter the title. The search result will be displayed.
- At the top of the Play History menu, press [↓🕐 / ↓▷] to sort the music list in order of most recently played/most played.
- After selecting the [MQS] category, press [↓≡ / ↓ᴬ𝗓] at the top to sort the music list in order of high quality / alphabetical order.
- In the [MQS] category, the MQS tab shows MQA files and PCM files of 24 bits or more, and the DSD tab shows DSD files.
  - ○ MQS: MQA [44.1-384kHz(16/24bit)]
  - ○ MQS: PCM [8-384kHz(24/32bit)]
  - ○ DSD: DSD [2.8/5.6/11.2MHz]
- Select the [Folder] category to check the internal / external memory capacity and number of files / folders, and copy / move music.
- Press [⇉] on the music list to add all music to the current playlist.

- Press [✐] on top of the music list to view the options:
  - ≣ : Select / deselect entire list
  - ▷₊ : Add the selected list at the top / bottom / after the current song of Now Playing
  - ☰₊ : Add selected list to a playlist
  - ⎕ : Delete selected list
  - ✕ : Exit
- Turn the [Volume] wheel to adjust the volume.
- Press [❚❚] during playback to pause and [▶] to resume playback.
- Press [|◀ / ▶|] during playback for the previous/next track.
- Press and hold [|◀ / ▶|] to rewind/fast-forward the track.
- Drag the indicator on the Playback Progress Bar to a desired location of a track during playback.
- Press the album art on the Home Screen to display the song lyrics.
- Press the [○] to go to Home Screen.
- Press [✕] at the top of the menu list to hide the menu list.
- After selecting [ALBUM] or [CD LIBRARY] category, press [⊞ / ≣ / ▦] at the top to sort by different viewing options.

Playlist Screen
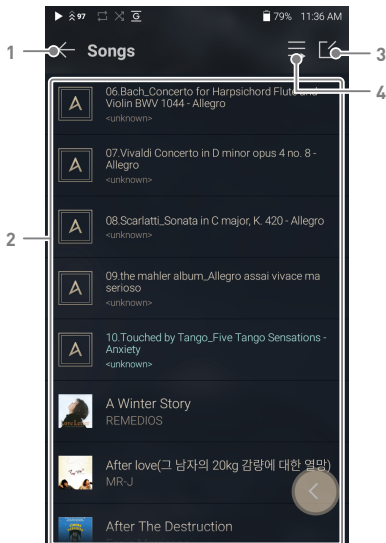
1	**Previous**	Return to the previous screen.
2	**Playlist**	Display the current playlist.
3	**Edit mode**	Display the editing options for the music list.
4	**Play All**	Play all songs in the current list.

Playlist
Manage-
ment

Creating a Playlist

1. Press [Playlists] on the menu to view the playlists.
2. Select [+] in the upper right corner of the screen.
3. Enter a name for the playlist, and then press [Add] to create a new playlist.
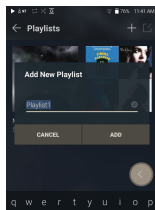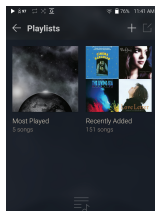
Adding a Song to a Playlist

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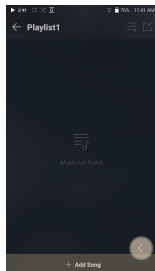
Removing a Song from a Playlist

1. Press [Playlists] to display the
   list of playlists.
2. Select the playlist to edit.
3. Press [✎] at the top, then select
   the song you want to delete from
   the playlist.
4. Press [🗑] on top of the screen.
5. Press [DELETE] to remove the
   song from the selected playlist.
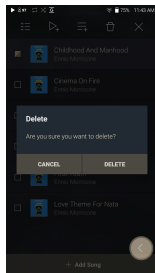
⚠ **This action will only remove the song from the selected playlist, not the memory.**

Playing a Playlist

1. Select the desired playlist for
   playback.
2. Press [≡→] at the top right of the
   screen to play the entire playlist.
3. To playback part of the playlist or
   add it to a current Now Playing
   playlist, press [✎] at the top of
   the playlist, select the music you
   want to play and press [▷+] to
   add the selected list to the top /
   bottom / after the current song
   of Now Playing.
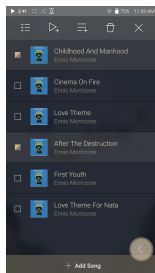
Renaming a Playlist

1. Press [Playlists] to view the playlists, and press [☐].
2. Select a playlist to be renamed.
3. Press [T] at the top of the screen to display the RENAME window.
4. Enter a name for the playlist and then press [RENAME] to confirm the change.
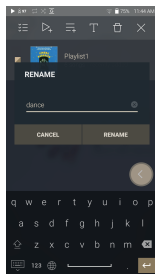
Deleting a Playlist

1. Press [Playlists] to view the playlists and press [☐].
2. Select the playlist to be deleted.
3. Press [🗑] at the top of the screen.
4. Press [DELETE] to delete the selected playlist.
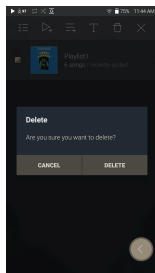
USB DAC Installation

The USB DAC function allows the device to be recognized as a sound card on a computer. Music from the computer is played through the device's headphone port for an enhanced listening experience.

USB DAC Specifications

- Supported OS
  ◦ Windows 7(32bit/64bit) / Windows 8(32bit/64bit) / Windows 10(32/64bit)
    MAC OS 10.7(Lion) or later
- USB DAC Support Specifications
  ◦ Supported Formats: PCM [8~384kHz(8/16/24/32bit)]
    DSD [2.8/5.6/11.2MHz]
- Control the volume with the AK device's volume wheel.

> ❗ Playback is unavailable when settings exceed the supported formats.
> The Previous, Play, and Next buttons are unavailable when connected as a USB DAC.
> 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 when using the device as a USB DAC.
> 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.
> Install a dedicated driver to use the AK device as a USB DAC.
> The driver file is located in PPM42\Internal_Storage\PPM42_Contents\Driver. Before installing the driver, set device to USB DAC mode and connect to the computer.

How to
Use USB
Audio

Connect the device to a portable amp or DAC using USB Audio Out.

How to Connect a Portable USB DAC

1. Connect the portable USB DAC to the AK device's USB Type-C port with a dedicated cable.
2. Press [🜀] in the Notification Bar.
3. Once [🜀] is activated, you can enjoy music stored on the device through the connected portable USB DAC.

> ⚠ **The USB Type-C cable that comes packaged with the device is only to be used for computer data transfer or to charge the device.**
> **The type of dedicated cable needed to connect to the portable DAC varies; please refer to USB DAC manufacturer instructions for correct cable type.**
> **A USB DAC cable is not included with the device and must be purchased separately.**
> **Depending on the OTG cable used, the connection may be unstable.**

How to Change USB Audio DSD Output Type

You can change the type of DSD data that is outputted through the USB audio out.

1. Select a DSD output type in [Menu - Settings - USB Audio].
   - PCM : DSD audio is converted into PCM before being outputted through the USB audio out.
   - DoP : DSD audio is converted into DoP before being outputted through the USB audio out.

> ⚠ **The portable USB DAC must be able to receive digital input through the micro-USB's OTG.**
> **Audio output may vary widely depending on the digital input specs of the portable USB DAC used. This is not a defect in the device output and not a reason for exchange or refund.**
> **When using DoP as a DSD output type, no sound may be outputted except noise depending on the portable USB DAC.**

CD
Ripping

CDs can be ripped directly to the device using the AK CD-RIPPER (sold separately).

Connecting the AK CD-RIPPER

1. Connect the AK CD-RIPPER to USB Type-C port of the device using the proper cable.
2. In the Notification Bar press [🔌] to link the devices and activate the CD Ripping Menu.
3. When ripping is complete, before disconnecting, press [🔌] on the Notification Bar to unlink/disconnect the devices.

> ❗ **The USB Type-C cable provided with the device is to be used to connect to the computer or to charge the product.**
> **Depending on the CD-Ripper model the dedicated USB Type-C OTG cable may not be provided in the product package.**
> **Depending on the OTG cable used, the connection may be unstable.**

Automatic CD Ripping

1. In [Menu-Settings-CD Ripping], turn on automatic CD ripping function.
2. Connect the AK CD-RIPPER to the device and insert a CD.
3. Metadata (ID3 tags) for the inserted CD will be retrieved via Gracenote if Wi-Fi is turned on.
4. CD ripping will begin automatically after the metadata has been downloaded.
5. When finished, press [OK] when prompted to complete the automatic CD ripping process.

Manual CD Ripping

1. In [Menu-Settings-CD Ripping], turn off automatic CD ripping function.

2. Connect AK CD-RIPPER and insert CD to display the [CD Ripping] notification at the bottom of the Notification Bar.

3. Press [CD Ripping] and select from the file format options of FLAC or WAV.

4. If Wi-Fi is turned on the Gracenote database will be searched for matching CD metadata after the file format is selected.

5. When the database search is complete, press [Start] to begin CD ripping.

CD Ripping Results

- ● : Indicates that CD ripping is complete, or that CD ripping was successfully completed after correcting an error via error correction.

- ✕ : Indicates that the song currently being ripped can be canceled by user.

- ! : Indicates that CD ripping failed due to an error that can't be corrected, such as a scratched CD, or that CD ripping was canceled by user.

> **To search the Gracenote database, the device must be connected to Wi-Fi. Database access time may vary depending on the network environment.**
> **Please note that metadata for certain CDs may not be available on the Gracenote database.**
> **You cannot access the Home Screen while CD ripping is in progress. The AK Connect service will be disabled during CD ripping. The service will automatically restart when CD ripping is completed. Music playback is disabled during ripping.**
> **You can set the desired file format and ripping speed from the [Menu - Settings - CD Ripping] menu.**
> **Several attempts at correction will be made for data with errors when the feature is enabled under [Menu - Settings - CD Ripping - Error Correction]. Please note that the CD ripping speed will be affected when this feature is enabled.**

Settings   The settings menu allows users to customize the device. The settings menu may vary depending on the firmware version.

Setup

1. Select [Main Menu - Settings] or select [⟨◎⟩] from the Notification Bar menu.
2. Select the feature to view setting options.

Wi-Fi

- Change wireless network settings and turn Wi-Fi on/off

> **❗**   See page 47 for more information on connecting to Wi-Fi.

Bluetooth

- Connect a Bluetooth device to listen to music wirelessly.

> **❗**   See page 48 for more information on using Bluetooth.

AK CONNECT

- Turn AK Connect on/off and set AK Connect options.

Equalizer

- Set the equalizer according to the user's preferences.
  - USER EQ: Adjust the frequencies according to the user's preferences.

> ⚠ **Supported Formats for EQ: PCM [8 ~ 192kHz(8/16/24bit)]**
> **Using the equalizer may negatively affect device performance.**
> **See pages 50 - 52 for more information on using the equalizer.**

Gapless Playback

- Plays the next song without any interruption.
  - Gapless playback is only supported between two files with identical bit rates, sample rates, and channels.

Line Out

- Set the voltage value generated when Line Out is activated.

> ⚠ **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.

Playback Settings

- Set how to add a song to Now Playing when a song is selected from a music list.

Notification Bar

- Add, delete, or reorganize Quick Settings buttons on the notification bar.

XLR

- Enable/disable XLR output.

AMP

- The AMP output can be set to LOW, MID, or HIGH.

CD Ripping

- Set the automatic CD ripping function as well as the file format and ripping speed.

USB mode

- Media Device (USB Drive): When connected to a computer, device appears as a removable drive.
- DAC Input: Output sound from a connected computer to the device.

USB Audio

- Select the type of DSD sound being outputted through USB Audio Out to a connected portable DAC.

S/PDIF Conversion

- Set the appropriate output format for the S/PDIF-connected external device.

> ⚠ **Pairing methods may differ for each individual Bluetooth device. Always refer to the respective instruction manual for details.**

Screen Brightness

- Adjust screen brightness settings.

Date & Time

- Set the current date and time.

Device Name

- Set the name of the device.
  - The maximum name length is 50 characters.

Language

- Select the display language.
  - Supported languages are English, Korean, Japanese, Chinese (Simplified/Traditional), French, Russian, German, and Spanish.

Input Method

- Back Button: the Floating Back Button will be displayed on the screen.
  - Move the Back Button to the desired position by dragging and dropping the icon with your finger.
  - Move the button to the center of the screen to deactivate it. To reactivate the button, turn it on from [Menu-Settings-Input Method]
- Keyboard: Select a language for the keyboard.
  - Supported languages are English, Korean, Japanese, Chinese (Simplified/Traditional), French, Russian, German, and Spanish.

> ⓘ **Supported languages may vary depending on your location.**

Timer Settings

- Auto Power Off: The device will automatically power off after the selected amount of time of no user and device activity.
- Screen Timeout: The screen will turn off after the selected amount of time of no user activity.
- Sleep Timer: Music playback will stop and the device will turn off after the selected amount of time.

Downloads

- Select a folder for downloaded files to be saved by default.

> ⓘ **When using AK Connect to download music, if the [Default folder] is selected in Settings, downloading will automatically begin to the pre-set Downloads folder.**
> **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 device when a new firmware version is available.
- Application Update: Update the default applications (including the Services) when new versions are available.

System Information

- System Information: View model number, firmware version, MAC address and memory usage information. The microSD card can be mounted/dismounted and data can be deleted.
- Legal information: Check open source licenses and regulations.

> ⓘ **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 on a computer, use of the FAT32 system is recommended.**

System Reset

- Initialize Media Scan: Resets and rescans the internal database. Database initialization time may vary depending on the number of files stored on the device.
- Settings Reset: Resets all user settings back to the default settings.
- Factory Data Reset: Deletes all user data and resets all user settings back to the default setting.
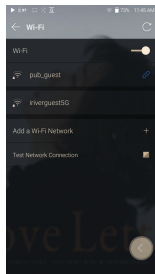
Connecting to Wi-Fi

Connecting to a Wi-Fi Network

1. Press and hold [📶] from the Notification Bar or select [Menu - Settings - Wi-Fi] to display a list of available Wi-Fi networks.
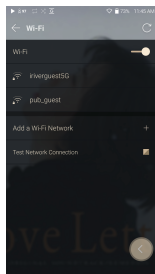
2. Select the desired AP to connect to the wireless network.
   • Additional information such as Wi-Fi password may be required depending on Wi-Fi settings.

> ⚠ **Networks requiring browser or other additional certifications are not supported.**
> **Wi-Fi Channels 1 through 13 are supported (but channels 12 and 13 are disabled for use in USA).**
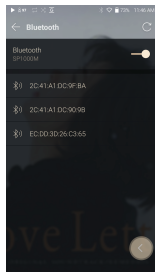
Using Bluetooth

Connect a Bluetooth device to listen to music wirelessly.

Turning Bluetooth On/Off

A Bluetooth device must be paired with the device prior to use.
Refer to the Bluetooth device's instruction manual for details.
1. Select [✳] from the Notification Bar menu or select [On/Off] from [Menu - Settings - Bluetooth].
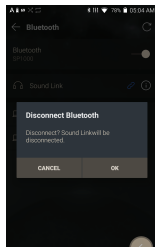
Bluetooth Pairing

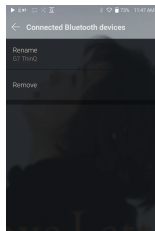1. In the Settings Menu, select the appropriate Bluetooth device from the list of available devices.

Disconnect a Bluetooth Device

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

Removing a Bluetooth Pairing

1. Press [(i)] to the right of the paired device to go to settings.
2. Select [Remove] to complete the process.

⚠️ **Bluetooth Support Specifications**
- **Profile: A2DP, AVRCP, aptX™HD**
- **Device performance may be affected during Hi-Res playback.**

Do not turn off the device while connected to Bluetooth.

Turn the Bluetooth device off then on in case of issue.

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 may not be fully compatible. Some features may not be supported and quality of playback may vary.

Malfunction, noise, and other undesirable effects may occur due to the device's battery level and the environment.

- If signal interference affects data transmission. (e.g., holding the device while wearing a Bluetooth device, holding the device while holding another electronic device, etc.)
- If the device or Bluetooth headset's radio transmitters are touching parts of the body.
- If the transmission strength is affected by walls, corners, partitions, etc.
- If devices using the same frequencies 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.)