

PSP22

Astell&Kern

INSTRUCTION BOOK

User Guide

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Before Using the Product

The descriptions contained in this instruction book are based on the product's default settings.

The contents of this instruction book may differ from the actual product due to changes in the manufacturer's specifications. The images shown in this instruction book may differ from the actual product.

Some features may not be available depending on the manufacturer of the mobile device and the specifications of the model. Please check with the manufacturer of the mobile device.

Do not allow water to enter the product. It may result in product failure. Do not wear the product when swimming or taking a shower. Failures due to damage from liquids are not covered by warranty.

Any modification of the software provided by the manufacturer, or any installation of software obtained through an unapproved route can cause the product to malfunction or fail, and will void the warranty.

Included Items

Components may change without prior notice to improve the performance or quality of the product.



TWS earbuds



Ear tips (5 sizes)



Charging case



Charging cable



**Quick Start Guide
& Warranty Card**

Ear tips: Select the ear tips that best fit your ears and affix them onto the earbuds.

Charging case: Stores and charges the earbuds.

Charging cable: Connects the charging case to a charger to charge the product.

Quick Start Guide: A basic guide for using the product.

Warranty Card: Please keep the warranty card since it is required when requesting after-sales service.

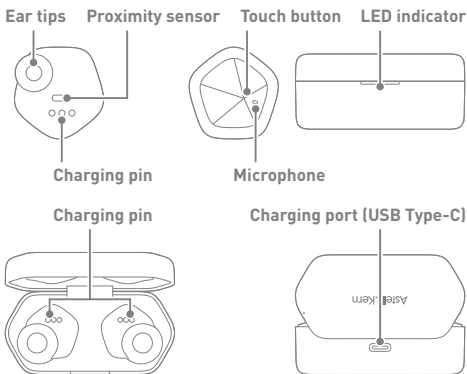
Product User Guide: The User Guide can be downloaded from the Astell&Kern website:
[<http://www.astellnkern.com> Support > Download].



The DC 5V/2A charger is sold separately. Please use a charger that meets the specifications.

Parts Names

The appearance of the product as well as the information printed and engraved on the product may vary depending on the manufacturer's specifications.



Ear tips: Select the ear tips that best fit your ears and affix them onto the earbuds.

Proximity sensor: Detects when you're wearing the earbuds.

Charging pin: The charging pins in the earbuds contact the charging pins located inside the charging case to charge the earbuds.

Touch button: Controls various features such as music playback.

Microphone: Using for calls.

Charging case

Charging pin: The earbuds are mounted onto the charging pins for charging.

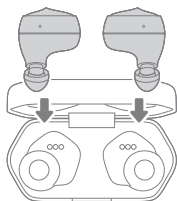
LED charging indicator: Indicates the charging states of the earbuds and charging case.

Charging port (USB Type-C): Used to charge the product with the connector cable.

Charging

Wired charging

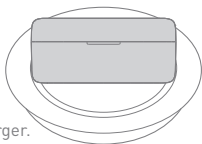
1. Notice the direction of the earbuds when replacing them in the charging case so they come in contact with the charging pins.
2. Connect the [charging port] on the back of the charging case with the charger using the USB Type C cable included in the package.
3. Plug the charger into an outlet.
4. The blue or green LEDs blink repeatedly depending on the charging state, and the LEDs turn off when charging is complete.
 - When charging is complete, disconnect the charging case from the charger.



Wireless charging

The charging case has built-in wireless charging coils that allow the battery to be charged using a wireless charger or other devices that act as a wireless charger.

1. Check the direction of the earbuds and place them to fit the grooves inside the charging case.
2. Place the charging case on top of the wireless charger so that the center of its bottom surface is touching the center of the wireless charger.
3. The blue or green LEDs blink repeatedly depending on the charging state, and the LEDs turn off when charging is complete.
 - When charging is complete, disconnect the charging case from the charger.





Be sure to use the USB Type C cable provided with the product. Cables that do not meet the specifications may cause product failure.

Recommended charger specifications: DC 5V/2A

Using a charger that does not meet the product's specifications may cause the product to fail. Any damage caused by using an unauthorized charger outside the recommended specifications will not be covered by warranty service.

If the product is being used for the first time after purchase, or if the product has been left unused for a long time, or if the battery is dead, charge for at least 10 minutes before using.

If the battery is completely discharged as a result of not using the product for a long time, battery performance may be compromised. Please frequently check the battery's charging state and charge the battery when its level is low.

Sweat or moisture on the charging pin can cause corrosion on the product. Make sure to completely remove any moisture before placing the earbuds into the charging case.

The product and charger may become hot during charging. This is normal and does not affect the life or functioning of the product.

If the battery temperature rises above a certain level, charging may stop for safety reasons. If charging wirelessly, remove the charging case from the wireless charging pad and allow it to cool before recharging.

Make sure to remove any conductive material (metals, magnets, etc.) from the back of the charging case before placing it on top of the wireless charger. Failing to do so may damage the charging case.

Connecting the charging case to a computer, etc., may result in a longer charging time.

Be careful not to bend the USB cable excessively. Doing so may cause the USB cable to break.

LED indicator (Charging case)

Color	Status
Blue: Blinks repeatedly	Earbuds: Charging in progress
Blue: Turns off	Earbuds: Charging complete
Green: Blinks repeatedly	Cradle: Charging in progress
Green: Turns off	Cradle: Charging complete
Blue/Green: Blinks repeatedly in turn	Earbuds/Cradle: Charging in progress (Both)
Blue/Green: Turns off	Earbuds/Cradle: Charging complete (Both)
Red: Blinks repeatedly	Battery level: 10% or less



If the LED indicator on the charging case does not turn on, remove the earbuds from the charging case and place them back in correctly, or disconnect the charging case from the charger and try again.
If the charging indicator continues to blink quickly in red, stop charging and contact us for service or repair.

LED indicator (Earbuds)

Color	Status
Blue LED: Blinks every second	Pairing mode
Blue LED: Blinks every three seconds	Pairing status: Normal
Red LED only: Blinks every three seconds	Battery level: 10% or less



The exact battery level can be checked using the app.

Power Management

Turn on/off

1. The earbuds power on automatically when they are removed from the charging case.
2. The earbuds power off automatically when they are placed into the charging case.

Reset

If the earbuds are not operating properly or have stopped operating, reset them and try again.

1. With the earbuds in the cradle, touch both earbuds for about 10 seconds to perform factory reset.
2. If one earbud is disconnected during use and the touch control does not work, touch the disconnected earbud for about 20 seconds to proceed with the reset.



Enable the Bluetooth feature at [Settings > Connections > Bluetooth] on your mobile device to pair the earbuds again.

Connections

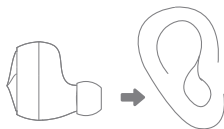
Insert the ear tips

1. Select the ear tips that fit you best among the five sets of ear tips that have been provided.
2. Take out the ear tip and flip the cover over backwards.
3. Turn slightly by applying a light force and affix it to the socket of the earbud.
4. Flip the cover of the ear tip back over again to its original position so it is ready to wear.



Wearing the earbuds

1. Check that the ear tip of the earbud is facing your ear.
2. Insert the earbud into your ear and adjust until it fits securely.



Please wear the Talk microphone so that the front of the microphone points slightly downward toward your mouth. The earbuds have built-in magnets, which can affect medical devices such as pacemakers and defibrillators. If you are using any of these medical devices, please consult your physician before using this product.

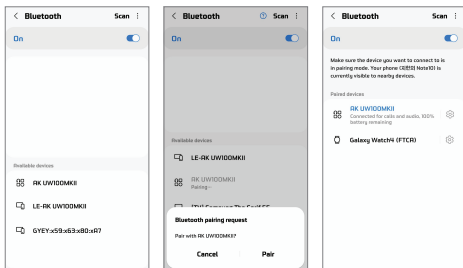
Maintain a safe distance between the product and any object that can be affected by magnetic fields. Data may become damaged or unusable by exposure to the magnet in this product. Wearing the earbuds incorrectly may affect sound quality or functions. Please select the appropriate size of ear tips that maintain a secure fit.

In places where the use of wireless devices is restricted (e.g., airplanes), please comply with all requirements for that location.

Connecting to a device

Connecting to a mobile device

1. When the earbud is removed from the charging case, it automatically powers on and enters pairing standby mode.
2. Turn on your mobile device's Bluetooth feature: [Settings > Connections > Bluetooth]
3. Select [PSP22] when it appears in the device search to complete pairing with your mobile device.
4. The earbuds turn off automatically when they are placed in the charging case.



A device only needs to be paired once and will subsequently connect automatically.

If only one earbud is connected to the mobile device, the sound is output in mono mode, but when both earbuds are connected to the mobile device, the sound is output in stereo mode.

The connection image may vary depending on the connected mobile device and the software version.

If the earbuds and mobile device are not connected / If the connection pop-up window does not appear/ If the earbuds are not detected from the mobile device: Wear the earbuds and touch one earbud for 3 seconds to enter Bluetooth pairing mode. A sound will notify you that the earbuds have entered Bluetooth pairing mode.

If one earbud gets disconnected during use, touch the disconnected earbud for 20 seconds to reconnect.

Bluetooth pairing mode will turn off if the earbuds and mobile device are not connected within 3 minutes outside the range. If you put the product in the charging case and take it out, the earbuds will enter Bluetooth pairing mode.

Make sure to check and adjust the Bluetooth volume to the appropriate level after pairing is complete. A high volume can cause hearing damage.

When connecting the product to a device, make sure the product is located close to the device. Failing to do so may cause malfunction or noise depending on the user's environment.

Use the earbuds within 10 meters of the connected device. The distance between the device and earbuds may affect the quality of your wireless connection.

Make sure there are no obstacles between the product and the connected device. Obstacles including other people, walls, corners, supplementary partitions, etc., can affect the quality of your wireless connection. For best performance, use in a location with no obstacles.

Be careful not to touch the device connected with the product. It may affect the quality of your wireless connection. Bluetooth uses the same 2.4 GHz frequency band as industrial/scientific/medical/electronics devices and wireless LAN. This can cause interference between devices and affect the quality of the wireless connection.

Disconnecting from your mobile device

1. You can disconnect the Bluetooth connection to the mobile device by placing the earbuds in the charging case.



You can also manually disconnect the earbuds by unregistering them [Settings > Connections > Bluetooth] from your mobile device.

To reconnect the temporarily disconnected earbuds to your mobile device, Press one earbud for 3 seconds to enter Bluetooth pairing mode.

Connecting to a different mobile device

1. Turn off the Bluetooth feature in the connected mobile device at [Settings > Connections > Bluetooth] or unregister the earbuds from [Registered Devices].
2. Press one earbud for 3 seconds to enter Bluetooth pairing mode.
3. Connect to the new mobile device via Bluetooth.

Switching between devices connected to the earbuds

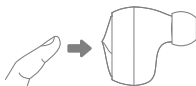
If more than one mobile device is connected to the earbuds, you can easily switch between mobile devices without disconnecting the earbuds from the existing devices.

1. On the mobile device you wish to switch to, select the earbuds at [Settings > Connections > Bluetooth > Registered Devices].

Using the Earbuds

Using the touch button

Touch the outside of the earbud to use various features such as playing or pausing music.



Action	Right	
	Stand by/Playing media	Receiving a call
● (Press once)	Play/Pause	Accept/end a call
● ● (Press twice)	Play the next track	Decline a call
● ● ● (Press three times)	Play the previous track	
■ (Press and hold for 2 seconds or longer)	Volume +	

Action	Left
● (Press once)	Ambient mode ON/OFF
● ● (Press twice)	Ambient mode level control
● ● ● (Press three times)	Enable voice recognition
■ (Press and hold for 2 seconds or longer)	Volume -



When touching the earbud, do so gently. Touching the earbud with too much force may hurt your ears.

Do not press the earbud's touch button with a pointed or sharp object. Doing so may cause the product to fail. Touching the button too quickly can cause malfunction. Please touch the button accurately to ensure proper performance. Voice guidance is enabled when switching functions using touch, and some actions may take more time to apply the change.

The touch functions of the left and right earbuds can be changed from the dedicated app. Please refer to the app's instructions for details.

Listening to Music

Playing music

You can listen to music playing on a mobile device by connecting the earbuds to the mobile device. Play the music stored in your mobile device or stream music while connected.

Controlling the volume

Touch the right earbud for 2 seconds or longer to increase the volume, and touch the left earbud for 2 seconds or longer to reduce the volume.

Pause/Play

During music playback, a single touch of the right earbud pauses the playback, and a second touch restarts it.

Playing the next music file

Touch the right earbud twice while playing music to play the next music file.

Play the previous music file

Touch the right earbud three times while playing music to play the previous music file.



Touch the right earbud three times after three seconds of music playback to return to the beginning of the music currently being played. To play the previous music file, touch the right earbud three times within three seconds of playing the music.

When connecting your earbuds to the mobile device for the first time, make sure to check the volume before listening to music.

A high volume can cause hearing damage. Adjust the volume to the appropriate level before listening to music.

Making a Phone Call

Answering a call

When your earbuds are connected to your mobile device, you can check and answer calls from your mobile device.

Accept/decline a call

When a call is received while you are wearing the earbuds, the earbuds will emit a sound as well as a voice notification to inform you of the phone number or name saved in your contacts for that incoming call.

- Touch the earbud once to accept the call.
- Touch the earbud twice to decline the call.

End a call

To end a call, touch the right earbud once.

Voice Recogni- tion

Voice Recognition

You can use the voice recognition features supported by your mobile device. Touch the left earbud 3 times to activate the voice recognition features.



Supported voice recognition features may vary depending on the specifications of the mobile device manufacturer.

To increase the recognition rate of voice commands, please pronounce as accurately as possible in a quiet place.

Slang words or derived words may not be recognized. Noisy locations or mispronunciation can cause either no recognition or misrecognition and the launch of unintended features.

Using the App

Using the AK TWS app, you can connect the earbuds to a smart device to check the status of the earbuds and set up the environment to use the earbuds.

Downloading the app

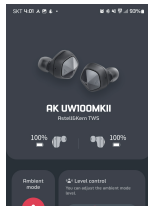
1. Search for the AK TWS app at the store for your smartphone and install.
 - Android OS : Open Google Play Store. Search [AK TWS] > Select [Install]
 - iOS : Open the App Store. Search [AK TWS] > Select [Get]



To use the AK TWS service, you must install the AK TWS app.
Supported operating systems:
Android: 7.0 or newer
iOS: 9.0 or newer (Supported products: iPhone 5 or newer / Products not supported: iPad)

Launch the app

1. Launch the AK TWS app installed on your device.
2. Grant access permissions. (just once, when the app is first launched).
3. The app now connects with the earbuds and shows information.



For firmware updates, make sure to grant access permissions when installing the AK TWS app.
For information on how to connect to the earbuds, see pages 10-11.
Depending on the connected mobile device, some items may not be displayed.

App screen



1 Product status	Displays battery status, Bluetooth status, device name, etc.
2 Ambient	Ambient mode and ambient mode level control are supported.
3 Home screen	Goes to the Home screen.
4 EQ	Goes to the EQ screen.
5 Settings	Goes to the Settings screen.
6 Tap action	Goes to the tap action settings screen.

App settings

Set up the device according to the user's needs.

The structure of the settings menu may vary depending on the firmware version.

Device settings

Language: Select the language for the device.

Reset settings: Reset all of the app's settings.

Other: View system information, legal information, etc.

Update

Updates the firmware.

Details

Shows information about the product.

Updating the firmware

1. When a new firmware version is available, the screen will display a firmware update guide window.
2. Select [Update] and move to the corresponding screen.
3. Follow the on-screen prompts to update the firmware.

Safety Pre- Cautions

- Do not wear the earbuds in unsafe areas, such as on roads or crosswalks. Doing so can slow your response to external risks and result in an accident.
- Maintain a safe distance between the product and any object that may be affected by magnetic fields. Data may become damaged or unusable by the magnet in this product.
- To prevent possible hearing damage, do not listen at high volume for long periods.
- Using earbuds without ear tips may hurt your ears.
- Do not allow a child, toddler, or pet to play with the product. There is a risk of swallowing or biting the earbuds, resulting in an accident.
- The manufacturer shall not be responsible for any safety incident caused by improper use.
- Never use harsh chemicals or detergents on the product since doing so can lead to changes in the surface and paint condition.
- Avoid the following conditions to prevent product damage:
Extreme temperature changes (below 0°C or above 40°C) /
Long-term UV exposure from direct sunlight /
Dust and moisture / Dampening or soaking with water.
- Never turn on the product if it gets wet from rain (water), beverage, chemicals, cosmetics, or moisture. Wipe it dry with a cloth and have it checked at the service center. (Failures due to water exposure can be repaired for a fee regardless of the warranty period. However, such damages may not be repairable.)
- Do not place heavy objects on the product.
- Do not drop or expose the product to strong impact. (e.g., avoid strong vibrations.)
- Never attempt to disassemble, repair, or modify the product yourself.
- Do not place the product near heat or an open fire.

- Do not place the device near magnetic objects (magnets, televisions, monitors, speakers, etc.).
- The manufacturer shall not provide exchanges or compensation for any product damage or loss resulting from the customer's negligence.
- Do not use the product in any way other than for the intended purpose.
- If there is a ringing in the ears, reduce the volume or stop using the device.
- Do not listen to music at excessive volumes for extended periods.
- If you use it for a long time with sweat or other things, there is a risk of inflammation in your ears, so please be careful.
- If the product does not operate properly, contact customer service. Appearance damage caused by repeated use is not subject to warranty.
- The product has a built-in magnet. If you are using a medical device that can be affected by magnets such as pacemakers and defibrillators, please consult your physician before using the product.



An exchange or compensation for this product may be provided in accordance with the standards for consumer dispute resolution as stipulated by the Korea Fair Trade Commission.

The wireless equipment included in this product may not be appropriate for use in places where radio interference can impact human safety.

The TWS earbuds may become disconnected due to irregular interference in places where there are multiple Wi-Fi relays (e.g., subways, airports, offices, and near traffic lights). This is not a device failure.

When streaming video, there may be some delay depending on the Internet speed and the service provider's connection status. This is not a device failure.

Trouble-shooting

Common issues and solutions

1. The product won't turn on.
 - The battery may be low. Charge the product for at least one hour and try again.
 - Reset and turn on the product again.
2. The earbud doesn't work.
 - If an earbud's proximity sensor does not make contact with your ear, the earbud may not work. If you can't hear any sound when playing a song after wearing the earbuds, remove the earbuds from your ears and reinsert them.
 - If your earbud does not respond to the touch function or if it is not working properly, please reset the earbud and try again.
3. I am searching through the devices on my Bluetooth but I can't find the earbuds.
 - Press one earbud for 3 seconds to enter Bluetooth pairing mode.
4. The earbuds do not connect properly to the mobile device, or the connection gets lost.
 - Check if there are any obstacles (walls, electronic devices, etc.) between the earbuds and the mobile device.
 - Make sure you have the earbud app installed on your mobile device. Check the version of the app and update it to the latest version.
 - Make sure the mobile device is within 10 meters of the earbuds when using them. The operating distance may vary depending on the environment.
 - Power off your mobile device, restart it, and relaunch the earbud app.

5. The battery won't charge correctly.
 - Check if your charger is a manufacturer-approved model.
 - Check if the earbud charging pins are in good contact with the pins in the charging case.
 - Check the connection between the charger and the charging case.
 - Foreign substances on the charging port may prevent the battery from charging. Clean the charging port area with a dry cloth before use.
6. The charging time and battery run time for each earbud is different.
 - The charging times for each earbud can be different even after charging at the same time.
 - The charging time and remaining battery level can be different for each earbud due to differences in the internal parts of each earbud.
7. The battery run time has shortened even though it has been charged.
 - If charged earbuds are left at low or high temperatures, the usable hours will shorten.
 - Since the battery is a consumable, the battery run time after fully charging will become shorter with use.
8. I can't hear the other person on the phone.
 - Adjust the volume of the connected mobile device.
9. I can hear some echo during calls.
 - Adjust the volume of the connected mobile device or move to a different location to make a call.

10. The sound quality during phone calls and when playing music is poor.
 - Wireless phones, wireless network devices, etc., can make noise that interferes with calls and music playback. Your earbuds should be as far away as possible from devices that use or generate radio waves.
 - Make sure that the device connected to the earbuds is within the maximum Bluetooth connection range (10 meters). The operating distance may vary depending on the environment.
 - Depending on the volume of the connected device, the sound may be interrupted or noise may occur during playback. Adjust the volume to an appropriate level.
11. When playing a video or a game, the sound from the earbud lags behind what appears on the screen.
 - It is possible for the audio and video to be out of sync when connecting your earbuds to a mobile device and playing a video or a game.
12. My earbuds are getting hot.
 - The earbuds can heat up when used for a long period. This is normal and does not affect the life or function of the earbuds.
 - If the heat is severe or persists for a long time, please stop using the product for a while. If this does not lower the temperature, contact the service center.

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Certifications

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.

Check information about KC/FCC/CE TELEC certification at [settings - system information - regulations]



FCC ID: QDMPSP22

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.

FCC ID will be in the manual and the product package because the device dimension is too small to accommodate the FCC ID in 8 point font.



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Adaptive

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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, Dreamus Company, regularly adds new features via OTA updates and will continue to apply new technologies in the future. Product specifications may be changed without prior notice. There is no warranty against data loss due to the use of this product.

Specifications

Bluetooth version	5.2
Bluetooth Profile	HFP, A2DP, AVRCP
Codec	SBC, AAC, aptX™adaptive
Driver	Knowles BA
DAC	AKM AK4332ECB
SPL(Sound Pressure Level)	94dBSPL/1mW@1kHz
Earbuds weight	about 7g
Case weight	about 65g
Firmware Upgrade	OTA (Over-The-Air) with APP